Doctors' specialist medical training

Regulations and general guidelines

Descriptions of objectives

2008

Socialstyrelsen

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Regulations and general guidelines for doctors' specialist medical training

adopted 24 June 2008.

The National Board of Health and Welfare (Socialstyrelsen) prescribes the following under the provisions of Chapter 4, Sections 1 and 3 of the Ordinance (1998:1513) on Professional Activities in the Health and Medical Care System, and adopts the following general guidelines.

Under the provisions of the Statutes Ordinance (1976:725), Appendix 2, the regulations on which knowledge, skills, and approaches are to apply for each specialist competence (descriptions of objectives) will be published by other means in a special publication. Descriptions of objectives listed under the heading 'Training Structure' constitute general guidelines, as do the teaching methods under the heading 'Partial Objectives' where the follow-up method is not indicated.

Chapter 1 Area of application and explanation of terms

Section 1. These regulations are to apply to the further training of licensed doctors in order to achieve specialist competence according to Chapter 3, Section 9 of the Law (1998:531) on Professional Activities in the Health and Medical Care System.

Section 2. The following concepts and terms are used in these regulations and general guidelines:

Intended specialist competence	the specialist competence that the licensed doctor undergoing specialist medical training (the ST doctor) intends to obtain with the planned training
Tutor	a person who continuously, and in dialogue form, supports and guides as well as evaluates a staffer regarding his or her professional development
instruction	assignment from a staffer to an ST doctor on work-specific techniques or procedures, while not being responsible for the ST doctor's professional development
instructor	staffer who gives the ST doctor assignments on work-specific techniques or procedures, while not being responsible for the ST doctor's professional

	development
director of studies	doctor with specialist competence who provides an organisational support function for a clinical manager, tutor, and ST doctor. The director's area of responsibility can relate to one or several training units, all or part of a county council, region, or corresponding unit
clinical manager	holder of the position responsible for operations
health care provider	natural person or legal entity that practices health care professionally

Chapter 2 The basis for specialist medical training

Section 1. In accordance with Chapter 4, Section 1, first paragraph of the Ordinance (1998:1513) on Professional Activities in the Health and Medical Care System, the licensed doctor wishing to obtain specialist competence must undergo further education for at least five years in order to acquire the knowledge, skills, and approaches prescribed for the specialist competence being sought. These must be acquired through service as a doctor under tutoring and through participation in supplementary training (specialist medical training).

Section 2. Vacations and on-call compensation may be credited in specialist medical training.

Section 3. If the specialist medical training is completed on part time, the specialist medical training must be extended so that the service time corresponds to at least five years of full time service.

Chapter 3 Quality aspects in specialist medical training

Section 1. The health care provider is to provide directives and see to it that there are documented routines, so that the specialist medical training can be carried out and regularly evaluated, in order to ensure consistently high quality in the specialist training.

Service and training programmes

Section 2. The health care provider is responsible for access to a director of studies, who must be a doctor with specialist competence, and who has undergone tutor training.

Section 3. The clinical manager is responsible for

1. assigning a tutor for the licensed doctor undergoing specialist medical training (the ST doctor),

2. establishing and finalising an individual training programme in accordance with the requirements in the description of objectives, in consultation with the tutor and the ST doctor,

3. scheduling theoretical training elements and courses into the training programme in accordance with the requirements in the description of objectives, and

4. auditing the training programme regularly, and additionally as needed, in consultation with the tutor and the ST doctor.

General guidelines

Courses during specialist medical training should be audited for quality.

An example of this is the courses announced by IPULS, the Institute for Professional Development of Doctors in Sweden, and which are quality audited according to a clear standard.

The tasks of the director of studies should include providing an organisational support function for clinical managers, tutors, and ST doctors. The director of studies should, among other things, participate in establishing training programmes, drawing up orientation programmes, and see to it that the tutors have the relevant qualifications for the field.

The need for necessary tutor and instructor contributions should be met by access to doctors with the relevant specialist competence and other staffers in the operation with specialist medical training.

Operations where specialist medical training is practised should be comprehensive enough to meet the requirements for competence in the description of objectives. There should be premises and equipment to the extent and standard needed to achieve the requirements of the description of objectives.

All ST doctors should have access to regular, planned internal and external training, as well as the opportunity for time regularly set aside for self-study. The operation should also offer ST doctors the opportunity to participate in research and quality development work.

Tutoring and instruction

Section 4. In accordance with Chapter 4, Section 1 of the Ordinance (1998:1513) on Professional Activities in the Health and Medical Care System, the specialist medical training must be carried out under tutoring.

General guidelines

Tutoring should be provided regularly, with the greatest continuity possible, and should be in agreement with and based on the individual training programme.

Outside of tutoring, the ST doctor should be continuously provided with the necessary instructions in the service, with feedback from operations staff.

Section 5. The tutor must have specialist competence in the intended speciality, and must have undergone tutor training.

General guidelines

Tutor training should include tutoring, pedagogy, communication, and ethics.

Documentation, evaluation, and assessment

Section 6. The clinical manager is responsible for the continuous, regular evaluation of the ST doctor's professional development, based on the description of objectives and the training programme, during the entire specialist medical training.

Section 7. ST doctors, with the support of their tutors, must continuously document skills achieved and knowledge acquired.

General guidelines

The tutor should continuously support, guide, and evaluate the ST doctor's professional development.

The continuous evaluation of the ST doctor's professional development should

- encompass all aspects of the specialist medical training and all the objectives covered in the description of objectives,
- be carried out using methods known and agreed on in advance, and
- as a rule, be carried out internally within the operation.

If there are deficiencies in ST doctors' competence, it should lead to improvements in their training programmes, in the training efforts of the operation, or, where appropriate, through more explicit demands on the ST doctors' efforts.

The clinical manager, or the doctor with the intended specialist competence to whom the clinical manager has given the assignment, should hold regular professional development interviews, which should be documented. Tutors should document their interviews with the ST doctors. ST doctors should also document tutor and professional development interviews.

Section 8. The health care provider must give directives and ensure that there are documented routines for how operations with specialist medical training are to be regularly reviewed through external inspections.

The inspecting unit and the operation inspected must not have economic, administrative, or organisational connections with each other.

The review must relate to the requirements set down in Sections 1 through 7, as well as those pertaining to general guidelines.

General guidelines

A review according to Section 8 may be done in accordance with the SPUR inspection model (a model for external review developed by the training quality foundation of the Swedish Medical Association and the Swedish Society of Medicine).

Chapter 4 Combined specialities, etc.

Section 1. There must be two responsible clinical managers and two responsible tutors for the specialist competences in clinical immunology and transfusion medicine, clinical bacteriology and virology, and industrial and environmental medicine.

The provisions of this chapter regarding the clinical manager are also intended for the doctor with the intended specialist competence to whom the clinical manager has given the assignment.

Exceptions from the requirement for dual clinical managers may be made if the clinical manager has dual specialist competences in accordance with the above, or specialist competence in accordance with the speciality listing indicated in Chapter 4, Section 1 of the Ordinance (1998:1513) on Professional Activities in the Health and Medical Care System. The same exception also applies to the requirement for the tutors.

Section 2. The clinical managers indicated in Section 1, first paragraph, must both have the indicated specialist competence for the combined speciality in question. The same requirement applies to the tutors.

This means that the clinical manager and the tutors must have specialist competence in

1. clinical immunology and transfusion medicine respectively for the speciality in clinical immunology and transfusion medicine,
2. bacteriology and virology respectively for the speciality in clinical bacteriology and virology, and
3. occupational health care and occupational and environmental medicine respectively for the speciality in industrial and environmental medicine.

Section 3. One of the clinical managers and one of the tutors must have chief responsibility for the specialist medical training.

The clinical managers must select which of them will bear chief responsibility through an agreement. The same applies to the tutors.

Section 4. The clinical manager with chief responsibility is responsible for

1. establishing a training programme for the ST doctor,
2. designating a tutor with the relevant specialist competence,
3. providing the ST doctor with tutoring, and
4. co-ordinating the certification procedure in consultation with the tutor with chief responsibility when the ST doctor has achieved all the requirements in the description of objectives.

Section 5. The tutor with chief responsibility must

1. establish a training programme for the ST doctor in consultation with the clinical manager with chief responsibility,
2. provide the ST doctor with tutoring, and
3. co-ordinate the certification procedure in consultation with the clinical manager with chief responsibility when the ST doctor has achieved all the requirements in the description of objectives.

Section 6. The clinical managers and tutors are responsible within their respective medical fields for certifying that the ST doctor has achieved the requirements of the description of objectives in their parts.

Section 7. In the speciality of radiology, a specialist in medical radiology must tutor and approve ST doctors being trained in the speciality.

Chapter 5 Branch and additional specialities

Section 1. In Chapter 4, Section 1 of the Ordinance (1998:1513) on Professional Activities in the Health and Medical Care System, the conditions under which a licensed doctor can obtain a certificate in a branch speciality and an additional speciality respectively are indicated.

General guidelines

A licensed doctor who wishes to obtain a qualification in a branch or additional speciality can, to a limited extent, begin specializing in the intended branch or additional speciality within the specialist medical training for the base speciality.

Section 2. Obtaining a certificate of specialist competence in emergency medical care requires possession of specialist competence in a base speciality belonging to any of

1. the surgical specialities,
2. the internal medicine specialities,
3. the paediatrics specialities,
4. the psychiatry specialities,
5. the neurological specialities (except clinical neurophysiology), or
6. the individual base specialities (except social medicine and clinical genetics).

Section 3. For those licensed as a doctor prior to 1 July 2006 who are applying for specialist competence in emergency medical care and who wish to include specialist competence in accordance with older regulations, the following shall apply.

Obtaining a certificate of specialist competence in emergency medical care requires a certificate of specialist competence in a speciality belonging to any of

1. the operating specialities,
2. the internal medicine specialities,
3. the paediatric specialities,
4. the psychiatric specialities, or
5. the individual specialities in general practice, occupational health care, school health care, skin and sexually transmitted diseases, neurology, infectious diseases, rehabilitation medicine, oncology, and pain relief.

Section 4. Obtaining a certificate of specialist competence in pain relief requires possession of a specialist competence certificate in a base speciality belonging to any of

1. the surgical specialities,
2. the internal medicine specialities,
3. the paediatric specialities,
4. the psychiatric specialities,
5. the neurological specialities (except clinical neurophysiology), or
6. the individual base specialities (except social medicine and clinical genetics).

Section 5. For those licensed as a doctor prior to 1 July 2006 who are applying for specialist competence in pain relief and who wish to include specialist competence in accordance with older regulations, the following shall apply.

Obtaining a certificate of specialist competence in pain relief requires possession of a certificate of specialist competence in a speciality belonging to any of

1. the operating specialities,
2. the internal medicine specialities,
3. the paediatric specialities,
4. the psychiatric specialities, or
5. any of the individual specialities in general practice, occupational health care, school health care, skin and sexually transmitted diseases, neurology, infectious diseases, rehabilitation medicine, and oncology.

Chapter 6 Crediting qualifications from doctoral studies and service abroad

Section 1. In accordance with Chapter 4, Section 1, first paragraph of the Ordinance (1998:1513) on Professional Activities in the Health and Medical Care System, qualifications from doctoral studies may be credited towards specialist medical training.

On condition that the requirements in the description of objectives in question are fulfilled, The National Board of Health and Welfare (Socialstyrelsen) shall issue a specialist competence certificate after at least four and a half years of service if the ST doctor has

1. a Swedish doctorate, or
2. a foreign doctorate that is judged to correspond to a Swedish doctorate by a Swedish university or college, or where applicable by the Swedish National Agency for Higher Education.

Section 2. Service in a clinic or corresponding facility in a country other than Sweden (service abroad) may be credited towards specialist medical training, if it

1. was included as part of an individual training programme,
2. was carried out under tutoring,
3. can be confirmed with a certificate issued by the institution's clinical manager or corresponding person, and
4. has led to the fulfilment of planned partial objective competence according to the clinical manager who will certify that the requirements of the description of objectives is fulfilled in its entirety.

The certificate under Point 3 must contain a short description of the operations managed at the institution.

Section 3. For doctors with licenses from a third country (a state outside the European Union and the European Economic Area), service may be credited in accordance with Section 2 from the moment the license was issued.

Chapter 7 Application and approval procedures

Section 1. In accordance with Chapter 3, Section 10 of the Law (1998:531) on Professional Activities in the Health and Medical Care System, issues of specialist competence will be examined by The National Board of Health and Welfare (Socialstyrelsen).

Section 2. The clinical manager, or the doctor with the intended specialist competence to whom the clinical manager has given the assignment, and the tutor are responsible for achieving the indicated training objective in the unit where operations within the intended speciality are managed.

Application

Section 3. An application for specialist competence in accordance with Chapter 3, Section 9 of the Law (1998:531) on Professional Activities in the Health and Medical Care System must be made on Form SoSB 45000 (***Appendix 1***). The application must be sent to The National Board of Health and Welfare (Socialstyrelsen).

Section 4. The clinical manager, or the doctor with the intended specialist competence to whom the clinical manager has given the assignment, and the tutor are to issue a certificate on form SoSB 45001 (***Appendix 2***) showing that the ST doctor has

1. acquired the knowledge, skills, and approaches indicated in the finalised description of objectives for the speciality being sought,
2. completed at least five years of service under tutoring, and
3. made use of the teaching methods in the description of objectives to the extent they indicate teaching methods as indicated in Section 7.

If any service abroad was relevant to fulfilling an objective or partial objective in the description of objectives, this shall also be indicated on the certificate.

The certificate must be attached to the application to The National Board of Health and Welfare (Socialstyrelsen).

Section 5. In the event the clinical manager has assigned a doctor with the intended specialist competence to issue the certificate in accordance with Section 4, this shall be verified by the clinical manager (***Appendix 2***).

In the event the clinical manager has been the tutor for the ST doctor, the clinical manager must designate a doctor with the intended specialist competence who, alongside the clinical manager him- or herself, is to certify the competence achieved (***Appendix 2***).

Section 6. If the ST doctor has served in several units, the clinical manager, or the doctor with the intended specialist competence to whom the clinical manager has given the assignment, in the unit within the speciality being sought where the ST doctor last served for the certificate are responsible.

The clinical manager must then consult with the clinical managers, or the doctor with the intended specialist competence to whom the clinical manager has given the assignment, in the units where the ST doctor served previously (***Appendix 2***).

Section 7. The following teaching methods in the description of objectives is to be used and shown via certificate on forms SoSB 45002, SoSB 45003, SoSB 45004, SoSB 45005 and SoSB 45006 (***Appendices 3–7***), which are to be sent to The National Board of Health and Welfare (Socialstyrelsen) in connection with applications for specialist competence in:

1. clinical service,
2. auscultations – only when the teaching method is indicated in the description of objectives as an alternative to clinical service,
3. courses,
4. written individual work in accordance with scientific principles, and
5. quality and development work.

General guidelines

The following may be used as supplementary teaching methods to those indicated in Section 7:

- instructing under supervision;
- tutoring under supervision;
- health care team work under supervision;
- seminar;
- large professional assembly;
- diagnostics and treatment symposia;
- training in a simulated environment;
- sit-ins;
- intraprofessional group reflection; and
- theoretical studies.

Approval

Section 8. The National Board of Health and Welfare (Socialstyrelsen) will, on the basis of the application, examine whether the requirement for service time according to Chapter 4, Section 1 of the Ordinance (1998:1513) on Professional Activities in the Health and Medical Care System, as well as the requirements in the description of objectives, have been fulfilled.

Section 9. The National Board of Health and Welfare (Socialstyrelsen) will collect statements from two external assessors for the review.

Section 10. The external assessors must

1. be selected by The National Board of Health and Welfare (Socialstyrelsen) for a period of three years, which can be renewed once,
2. be appointed according to proposals from the speciality association in the Swedish Medical Association or the section in the Swedish Society of Medicine, and
3. have specialist competence in the intended speciality.

Section 11. The external assessment must include an examination of whether

1. services and certified teaching methods for the various partial objectives in the description of objectives as regards its contents were relevant to fulfilling all of the competence requirements and partial objective requirements,
2. the certified persons had the relevant competence for the task, and
3. any service abroad has been certified by persons with the relevant competence.

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1. This statute enters into force, with reference to the requirement for tutor training in Chapter 3,
Sections 2 and 5, on 1 September 2010, and otherwise on 1 September 2008.

2. With this statute, the following are repealed:
– The National Board of Health and Welfare (Socialstyrelsen) regulations (SOSFS 1996:26) Description of objectives for specialities within specialist medical training for doctors,
– The National Board of Health and Welfare (Socialstyrelsen) regulations and general guidelines (SOSFS 1996:27) Specialist medical training for doctors, etc.

3. For doctors who received a licence prior to 1 July 2006, however, the old statutes may apply if applications regarding a certificate of specialist competence are submitted no later than 31 Dec 2013.

Description of objectives for the respective specialties

Specialties in surgery

Surgery

Introduction
Explanation of terms
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Definition of area of competence
Competence requirements
Competence requirements for medical competence
Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work
Training structure
Special recommendations
Intermediate objectives
Medical competence
Communicative competence
Leadership competence
Competence within medical science and quality work

Introduction

On June 24, 2008, The National Board of Health and Welfare (Socialstyrelsen) decided to issue new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists of a general part with common provisions for all specialties and a specific part with all the descriptions of objectives. The description of objectives for the respective specialties should be understood against the background of the provisions in the general part.

In each description of objectives, there is a section headed 'Training structure', which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor

continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring

see mentor

handle

to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle

as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate

as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection

reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service

health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course

teacher-led training with an established plan, given during a defined period of time

sitting-in

training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar

instruction in group form with active participation

training in a simulated environment

training carried out in an environment created to emulate reality

large professional assembly

conference, congress, symposium or similar event

health care centre

health care unit in primary care

health care team work

work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competencies

Definition of area of competence

The specialty of surgery includes injuries and diseases in the organs of the abdominal cavity, in the chest, skin, hypodermis, and endocrine glands in the throat and abdominal cavities of patients of all ages who could be considered as needing treatment involving methods employing surgical instruments in which skills in operating techniques are crucial. The evaluation of symptoms and understanding of pathophysiology, diagnostics and evaluation in surgical treatment and aftercare also play a central role, as does acute treatment in the case of multitrauma. Multidisciplinary cooperation is a prerequisite for development in this area of competence.

Surgery is the base specialty for the branch specialties of urology, paediatric surgery, plastic surgery and vascular surgery.

Competence requirements

Competence requirements for medical competence

For specialist competence in surgery, it is necessary to master surgical pathophysiology, basic surgical techniques, initial trauma management, acute surgical diseases in adults and children, basic nutrition management, basic pain management, basic surgical intensive care and the effects of anaesthetics. This forms the common knowledge base with the branch specialties (intermediate objectives 1–4).

For specialist competence in surgery, it is also necessary to master diagnostics and operative methods for patients with hernias and to be able to handle patients with diseases of the upper and lower gastrointestinal canals. It also involves having an understanding of evaluation, diagnostics and treatment of surgical conditions in the endocrine glands and chest and being able to initially handle injuries and diseases within peripheral ducts and the urinary tract.

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for the patients' right to information, influence, and participation in decisions. Contact

should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentives for the patients' involvement and responsibility for their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must have the ability to communicate, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competencies. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health and medical care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology including basic epidemiological concepts as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

Early education and training in basic surgical techniques is essential and should take place in both clinical and simulated environments during placements within both basic and branch specialties. Training in the initial handling of acute surgical diseases should begin at an early stage and then continue throughout the entire training with development of operative treatment and aftercare.

Training in surgical pathophysiology, basic pain management, intensive care, and anaesthetic effects should take place during the first part of the training and form the basis for the more specialised training.

Specialised training can begin during the first part; one suggestion is to initiate it with uninterrupted training in areas where large volumes of operative training can be offered. Training in visceral surgery is central to this and should be given a lot of space. The main placement should be arranged in the middle of the training, while shorter placements can be arranged at an early stage in order to provide basic training in handling acute conditions.

It is best for placements at units treating breast, endocrine, vascular surgery and urological diseases to take place towards the end of training.

Courses, auscultations and theoretical studies should, where possible, take place during the placement in question. These specialised placements should be as closely connected as possible and should only be interrupted by any acute placement or course.

Communicative competence, leadership competence and competence within medical science and quality work should be initiated at an early stage and continue as a natural and integral part of the entire training.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To master surgical pathophysiology, basic surgical techniques and treatment of diseases of the skin and hypodermis that could require surgical treatment.	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 2	Teaching methods	Follow-up
To master evaluation, diagnostics and initial treatment of acute abdominal diseases	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To master initial handling of major and minor traumas	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To master basic pain management, surgical intensive care and anaesthetic effects	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To master diagnostics and operative methods for hernias	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To be able to handle patients with injuries to and diseases of the upper gastrointestinal canal	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Diagnostics and treatment symposium	
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To be able to handle patients with injuries to and diseases of the lower gastrointestinal canal	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Diagnostics and treatment symposium	
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To have an understanding of investigation, diagnostics and treatment of malignant and benign diseases of the breast	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Diagnostics and treatment symposium	
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To have an understanding of examination, diagnostics and treatment of diseases of the thyroid, parathyroid and other endocrine organs where surgical treatment may be an alternative	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To be able to initially handle the medical investigations, diagnostics and treatment of peripheral arterial and venous diseases	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To be able to initially handle acute injuries to and diseases of the kidneys and urinary tract	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To have an understanding of disaster medicine work and disaster medicine organisation	Seminar	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Instructing under supervision	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management, and regulatory systems of health and medical care	Course	Certificate of successfully completed course, issued by course leader

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Course	Certificate of successfully completed course, issued by course leader
	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor
	Large professional assembly	

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor

Urology

General definition of competence
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General definition of competence

Definition of area of competence

The area of competence within the specialty of urology involves knowledge of congenital and acquired illnesses or conditions in the urinary tracts and the male genitals, as well as injuries to these organ systems. Surgical skills are essential for the specialty, but other treatments also take up a large part of operations. Pharmacological, minimally invasive, and paramedical treatment principles in urological tumour illnesses, symptoms in the lower urinary tract, lithiasis, sexual dysfunction and pain palliation in urological tumour illnesses are just a few examples of this important field.

Competence requirements

Competence requirements for medical competence

Specialist competence in urology requires being able to handle acute injuries and illnesses in the kidneys and urinary tracts, as well as knowledge of inflammation and infection in the urinary tracts and the male genitalia. Additionally, being able to evaluate and handle lithiasis in the urinary tracts, as well as functional disorders and obstructions in the lower urinary tracts, is required. Furthermore, knowledge of endourological investigation and treatment of other illnesses in the upper urinary tract is required. Urological tumour illness is a large illness field where knowledge of evaluation and handling is required. Additionally, being able to evaluate and handle symptoms and illnesses in men's genitalia, as well as knowledge of illnesses associated with male sexuality, is required. Beyond that, being able to handle symptoms and illnesses in the urinary tracts and the genitalia of male children is required.

Specialist competence in urology further requires mastering surgical pathophysiology, basic surgical techniques, initial trauma handling, acute surgical illnesses in adults and children, basic nutritional treatment, basic pain management, basic surgical intensive care, and the effects of anaesthetics. This makes up the common knowledge base with the branch specialties (intermediate objectives 1-4).

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin, which should be characterised by empathy and trust, as well as respect for the patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competencies. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and an understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

Prior training and practise in basic surgical techniques is essential and should take place in both a clinical and a simulated environment during placement within both the base and the branch specialty. Practise in initial handling of acute urological and surgical illnesses should be initiated early and then go on during the entire training, and be followed by development towards operative treatment and aftercare.

Training in surgical pathophysiology, basic pain management, intensive care, and the effects of anaesthetics should be situated in the first part of training and make up the base for more specialised training.

The more specific training in urology should be initiated early on in the specialist training, and it is recommended that it be started with connected training in a field where large volumes of operative practise can be offered. Training in transurethral surgery is essential and should be given broad scope. The main placement should occur in the middle of training; shorter placements, however, can be allocated early in order to provide basic practise in handling acute conditions.

If possible, courses, auscultations, and theoretical studies should be spread out in a way that allows integration with the ongoing placement. Communication competence, leadership competence, and competence in medical science and quality work should be initiated early on and should continue as a natural and integrated part of the entire training.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To master surgical patho-physiology, basic surgical techniques and treatment of diseases of the skin and dermis requiring surgical treatment	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
		Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 2	Teaching methods	Follow-up
To master evaluation, diagnostics, and treatment of acute abdominal illnesses	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To master initial handling of greater and lesser trauma	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To master basic pain management, surgical intensive care and the effects of anaesthetics	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To be able to handle acute injuries and illnesses in the urinary tracts and genitals	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To be able to evaluate and handle suspected urological cancer	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To be able to evaluate and handle stones in the urinary tracts. To have an understanding of endourological investigation and treatment of other illnesses in the upper urinary tract	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To be able to evaluate and handle infections and inflammatory conditions in the urinary tracts and male genitalia	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To be able to evaluate and handle functional disorders and obstructions in the lower urinary tracts	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To be able to evaluate and handle symptoms and illnesses in men's genitalia	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To be able to evaluate and handle symptoms and illnesses associated with male sexuality	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To be able to initially evaluate and handle symptoms and illnesses in the urinary tracts and genitalia of male children	Clinical service under supervision or auscultation in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin, including difficult answers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Instruction under supervision	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management and regulatory systems of health and medical care	Course	Certificate of successfully completed course, issued by course leader

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Course	Certificate of successfully completed course, issued by course leader
	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor
	Large professional assembly	

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor

Paediatric surgery

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Introduction

On June 24, 2008, The National Board of Health and Welfare (Socialstyrelsen) decided to issue new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists of a general part with common provisions for all specialties and a specific part with all the descriptions of objectives. The description of objectives for the respective specialties should be understood against the background of the provisions in the general part.

In each description of objectives, there is a section headed 'Training structure', which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the current area

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor

continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre

health care unit in primary care

health care team work

work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competencies

Definition of area of competence

The specialty of paediatric surgery covers the handling of children and young people with deformities, injuries and diseases that are treated using surgical methods. Skills in operating techniques are crucial to this specialty. Contact with children and parents is also vital in order to correctly evaluate symptoms and pathophysiological courses of events. In addition to the course of events immediately prior to and after the operation, an important element of the specialty is the long-term follow-up of the growing individual.

Paediatric surgery is a branch specialty of the base specialty of surgery.

Competence requirements

Competence requirements for medical competence

For specialist competence in paediatric surgery, it is necessary to be able to handle deformities and diseases of the gastrointestinal canal and urinary tract, as well as hernias and other deformities of the abdominal wall and diaphragm. It is also necessary to be able to initially handle common deformities and diseases of the blood vessels and lymphatic vessels, and of the organs of the thorax. It is also important to be able to evaluate solid tumours in children and to have an understanding of how to examine and treat them.

In practical terms, it is necessary to master basic investigation methods and surgical operations, and to have an understanding of more advanced surgical measures. It is also necessary to master the follow-up of paediatric surgery conditions during the years of childhood and adolescence, and to have an understanding of the consequences these could have for the patient as an adult. An understanding is also required of embryology, perinatal physiology, growth and development, as well as an understanding of intensive care and anaesthetics as regards the growing individual.

For specialist competence in paediatric surgery, it is also necessary to master surgical pathophysiology, basic surgical techniques, initial trauma management, acute surgical diseases in adults and children, basic nutrition management, basic pain management, basic surgical intensive care and the effects of anaesthetics. This forms the common knowledge base with the branch specialties (intermediate objectives 1–4).

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for the patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentives for the patients' involvement and responsibility for their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must have the ability to communicate, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competencies. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health and medical care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology including basic epidemiological concepts as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

During the early part of training, it will be necessary for ST doctors to assimilate the common knowledge base for the surgical specialties. It is particularly important to learn the basic surgical techniques at the beginning, which may be done either clinically or in a simulated environment. Specialist medical training in paediatric surgery can begin before, during, or after specialist medical training in surgery and can be integrated with it.

It is best if the main period of service at the beginning of training takes place at a surgical unit. The majority of training in paediatric surgery should be after ST doctors has acquired specialist competence in surgery. This phase of specialist training should initially be focused on ST doctors learning to handle common conditions that require surgical treatment during childhood. The latter part of the training will constitute advanced studies in highly-specialised paediatric surgery. It is, therefore, very important that ST doctors learns to evaluate and handle common deformities in, above all, the gastrointestinal canal and urinary tract.

In connection with training in surgery, ST doctors should also receive simultaneous additional training in anaesthetics and intensive care. This should be supplemented with experience of paediatric anaesthetics and paediatric intensive care.

As the paediatric surgery area of competence covers many uncommon or very uncommon conditions, it is extremely important to carry out extensive theoretical studies in parallel with the practical training. ST doctors should acquire communicative competence, leadership competence and competence within medical science and quality work at an early stage in parallel with clinical training.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To master surgical pathophysiology, basic surgical techniques and treatment of diseases of the skin and hypodermis that could require surgical treatment.	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 2	Teaching methods	Follow-up
To master evaluation, diagnostics and initial treatment of acute abdominal diseases	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To master initial handling of major and minor traumas	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To master basic pain management, surgical intensive care and anaesthetic effects	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To be able to handle hernias and other deformities in the abdominal wall and diaphragm of children and adults.	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To be able to handle deformities and diseases of the upper gastrointestinal canal, including the liver, bile ducts, spleen and pancreas of children and adults	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To be able to handle deformities and diseases of the small intestine, colon, rectum and anus of children and adults	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To be able to initially handle diseases and deformities of the blood and lymphatic vessels of children	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Diagnostics and treatment symposium	
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To be able to handle deformities and diseases of the kidneys and urinary tract of children	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To be able to initially handle deformities and diseases of the thorax in children	Clinical service under supervision in a unit that handles these conditions or auscultation under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor or certificate of approved auscultation and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To be able to evaluate solid tumours in children	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Diagnostics and treatment symposium	
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To have an understanding of embryology, perinatal physiology, growth and development, and an understanding of intensive care and anaesthetics as regards the growing individual	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 18	Teaching methods	Follow-up
To have understanding of the organisation, management, and regulatory systems of health and medical care	Course	Certificate of successfully completed course, issued by course leader

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Course	Certificate of successfully completed course, issued by course leader
	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor
	Large professional assembly	

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor

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Competence within medical science and quality work.

Introduction

On June 24, 2008, The National Board of Health and Welfare (Socialstyrelsen) decided to issue new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists on the one hand of a general part with common provisions for all specialties, and on the other hand of a specific part with all descriptions of objectives. The description of objectives for the respective specialties should be understood against the background of the provisions in the general part.

In each description of objectives, there is a section headed 'Training structure', which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the current area

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly

conference, congress, symposium or similar event

health care centre

health care unit in primary care

health care team work

work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competencies

Definition of area of competence

The specialty of plastic surgery covers the investigation, diagnostics, non-surgical and surgical treatment and follow-up of external congenital deformities and acquired external defects and functional limitations caused by tumours, injuries, or other changes to the skin, mucous membranes, and connective tissue. The evaluation of both acute injuries and diseases, as well as planned plastic surgery measures for defects and deformities that are either congenital or that have arisen following an earlier trauma or disease, plays a central role and is based on a broad understanding of epidemiology and diagnostics of the groups of diseases and injuries that occur. An understanding of fundamental principles and terms – as well as well-developed practical skills regarding the majority of forms of investigation and operating methods, which provides the opportunity to plan and carry out specific operations – is also of key importance. Plastic surgery technology requires multidisciplinary collaboration – particularly in ear, nose and throat surgery, orthopaedics, neurological surgery, and surgery – which is necessary for developing the area of competence.

The plastic surgery specialty is a branch specialty of the base specialty of surgery.

Competence requirements

Competence requirements for medical competence

For specialist competence in plastic surgery, it is necessary to master fundamental plastic surgery techniques and have an understanding of advanced plastic surgery technology. It is also necessary to master the handling and treatment of tumours and wounds involving the skin and soft parts.

It is also necessary to master the diagnostics and handling of burn injuries as well as trauma caused by injuries to the skin and soft parts. As regards the facial region, it is also necessary to master damage to the skeleton and nerves. It is also necessary to master the evaluation, diagnostics, and treatment of functional disorders within the groups of diseases and injuries that occur in plastic surgery.

In addition to this, it is necessary to have an understanding of the diagnostics and treatment of conditions that require chest reconstruction and an understanding of the investigation, diagnostics and treatment of craniofacial deformities and other deformities that require plastic surgery technology.

For specialist competence in plastic surgery, it is also necessary to master surgical pathophysiology, basic surgical techniques, initial trauma management, acute surgical diseases in adults and children, basic nutrition management, basic pain management, basic surgical intensive care and the ef-

fects of anaesthetics. This forms the common knowledge base with the branch specialties (intermediate objectives 1–4).

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for the patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentives for the patients' involvement and responsibility for their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by an understanding of and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must have the ability to communicate, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competencies. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health and medical care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology including basic epidemiological concepts as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work and quality work.

Training structure

Specialist medical training in plastic surgery can begin before, during, or after specialist medical training in surgery and can be integrated with it.

Early education and training in basic plastic surgery techniques is essential and should take place in a clinical environment. Training in the initial handling of plastic surgery diseases, trauma and acute conditions should begin at an early stage and then continue throughout the entire training with development of operative treatment and aftercare. Specialised training should begin at an early stage and take place continually within the areas offering adequate diagnostics, handling and operative training, such as skin tumours, chest surgery and trauma.

During training, it is imperative that ST doctors is given placements at units that practice burn injury care, reconstructive chest surgery, microsurgery and the treatment of deformities by means of plastic surgery. These specialised placements should be as closely connected as possible and take place at university or regional hospitals. Simultaneous additional training within adjacent areas should be arranged towards the end of the service period.

Courses and theoretical studies are practiced continually and should be a natural and integral part of the entire training. Communicative competence, leadership competence and competence within medical science and quality work should be initiated at an early stage.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To master surgical pathophysiology, basic surgical techniques and treatment of diseases of the skin and hypodermis that could require surgical treatment.	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 2	Teaching methods	Follow-up
To master evaluation, diagnostics and initial treatment of acute abdominal diseases	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To master initial handling of major and minor traumas	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To master basic pain management, surgical intensive care and anaesthetic effects	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To master basic plastic surgery techniques and have an understanding of advanced plastic surgery technology for the reconstruction of tissue defects	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by cur-
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To master the handling and treatment of patients with skin and soft part tumours	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Diagnostics and treatment symposium	

Intermediate objective 7	Teaching methods	Follow-up
To master the diagnostics and initial handling of burn injuries and also have an understanding of the treatment of major burn injuries	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To master the diagnostics and initial handling of trauma caused by skin and soft part injuries and, as regards the facial region, also damage to the skeleton and nerves.	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To master the evaluation, diagnostics and treatment of wounds that require plastic surgery technology	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To master the evaluation, diagnostics and treatment of functional disorders within the groups of diseases and injuries that occur in plastic surgery	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To have an understanding of the diagnostics and treatment of conditions that require chest reconstruction	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Diagnostics and treatment symposium	
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To have an understanding of the examination, diagnostics and treatment of craniofacial deformities and other deformities that require plastic surgery technology	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Diagnostics and treatment symposium	
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Instructing under supervision	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management, and regulatory systems of health and medical care	Course	Certificate of successfully completed course, issued by course leader

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Course	Certificate of successfully completed course, issued by course leader
	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor
	Large professional assembly	

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor

Vascular surgery

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Competence within medical science and quality work

Introduction

On June 24, 2008, The National Board of Health and Welfare (Socialstyrelsen) decided to issue new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists of a general part with common provisions for all specialties and a specific part with all the descriptions of objectives. The description of objectives for the respective specialties should be understood against the background of the provisions in the general part.

In each description of objectives, there is a section headed 'Training structure', which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the current area

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor

continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring

see mentor

handle

to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle

as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate

as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection

reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service

health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course

teacher-led training with an established plan, given during a defined period of time

sitting-in

training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar

instruction in group form with active participation

training in a simulated environment

training carried out in an environment created to emulate reality

large professional assembly

conference, congress, symposium or similar event

health care centre

health care unit in primary care

health care team work

work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competencies

Definition of area of competence

The specialty of vascular surgery includes specific knowledge and skills in diagnosing and treating diseases and injuries that concern peripheral blood vessels. This includes all the arteries and veins in the body, except the blood vessels in the heart and brain. This area of competence is closely connected to radiology, and also to angiology.

The area of competence covers all reconstructive operations that could be relevant using surgical and endovascular techniques. This also includes a thorough understanding of angiology and the pathophysiology of the vascular system and also of pharmacological therapy and an understanding of radiology diagnostics, with its limitations and possibilities.

The vascular surgery specialty is a branch specialty of the base specialty of surgery.

Competence requirements

Competence requirements for medical competence

For specialist competence in vascular surgery, it is necessary to master and have an understanding of evaluation, investigation, diagnostics, surgical and endovascular treatment and the follow-up of patients with peripheral vascular disorders and vascular trauma. An understanding of radiology diagnostics and prophylaxis as well as the pharmacological treatment of vascular disorders is also necessary.

For specialist competence in vascular surgery, it is also necessary to master surgical pathophysiology, basic surgical techniques, initial trauma management, acute surgical diseases in adults and children, basic nutrition management, basic pain management, basic surgical intensive care and effects of anaesthetics. This forms the common knowledge base with the branch specialties (intermediate objectives 1–4).

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for the patients' right to information, influence, and participation in decisions. Contact

should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentives for the patients' involvement and responsibility for their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must have the ability to communicate, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competencies. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health and medical care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology including basic epidemiological concepts as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

Specialist medical training in vascular surgery can begin before, during, or after specialist medical training in surgery and can be integrated with it.

Early education and training in basic surgical techniques is essential and should take place in both clinical and simulated environments during placements within both basic and branch specialties. Training in the initial handling of acute surgical diseases should begin at an early stage and then continue throughout the entire training with development of operative treatment and aftercare.

Training in surgical pathophysiology, imaging techniques, traumatology and basic pain management should take place during the first part of the training and form the basis for the more specialised training.

Simultaneous additional training though service in anaesthetics and intensive care can be arranged during the latter part of the training. Further, subsequent simultaneous additional training in medical angiology, radiology and thoracic surgery are also particularly recommended.

The continual development of knowledge in the optimum care of patients with peripheral vascular disorders should take place in close cooperation with other areas of knowledge, such as endocrinology, nephrology and cardiology during the entire period of specialist vascular surgery training.

More specific vascular surgery and endovascular training should begin at an early stage of specialist training in order to enable ST doctors to take part in acute vascular surgery operations during the remainder of the training. Specific vascular surgery and endovascular training should also be offered to a great extent under supervision during the latter part of the training. It is also important that ST doctors is offered ample training in the handling of acute vascular disorders and vascular injuries in order to acquire a good understanding of the subject. It may be beneficial to offer this through service at units with a greater volume of endovascular and open vascular surgery treatment during the latter half of the training.

Specialist training should involve logical, clear and continuous professional development. Well thought-out management of intermediate objectives and training elements, including courses, should therefore form part of the individual training plan.

Placements should be as closely connected as possible and only be interrupted by courses on the subject or theoretical studies.

Professional development in areas such as communication, leadership and medical science should begin as early as possible in the training and then continue in parallel and integrated with the remainder of the training.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To master surgical pathophysiology, basic surgical techniques and treatment of diseases of the skin and hypodermis that could require surgical treatment.	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 2	Teaching methods	Follow-up
To master evaluation, diagnostics and initial treatment of acute abdominal diseases	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To master initial handling of major and minor traumas	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To master basic pain management, surgical intensive care and anaesthetic effects	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To master evaluation and diagnostics and also to be able to handle occlusive disease in peripheral vessels To have an understanding of pathogenesis and be able to handle pharmacological treatment and prophylaxis with regard to peripheral vascular disorders	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Auscultation under supervision in a unit that handles these conditions	
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To master evaluation and diagnostics and be able to deal with aneurisms in the abdominal aorta, extremity arteries and visceral arteries	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To master evaluation and diagnostics and be able to handle carotid artery diseases and be able to evaluate disease in the vessels leading from the aortic arch	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Auscultation under supervision in a unit that handles these conditions	
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To be able to handle evaluation and diagnostics and have an understanding of the treatment of thoracic aneurisms and aortic dissection	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Auscultation under supervision in a unit that handles these conditions	
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To master diagnostics and treatment of superficial venous insufficiency and venous thrombosis and be able to handle deep venous insufficiency and venous thromboembolism	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Auscultation under supervision in a unit that handles these conditions	
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To be able to handle permanent venous catheters, access for haemodialysis treatment and peritoneal dialysis	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Auscultation under supervision in a unit that handles these conditions	
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To be able to evaluate radiology methods for vascular disorders	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Auscultation under supervision in a unit that handles these conditions	
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Communicative competence

Intermediate objective 12	Teaching methods	Follow-up
To have a capability for dialogue and of maintaining open contact with patients and their next of kin	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
Intermediate objective 13	**Teaching methods**	**Follow-up**
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 14	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Instructing under supervision	

Leadership competence

Intermediate objective 15	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 16	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 17	Teaching methods	Follow-up
To have an understanding of the organisation, management, and regulatory systems of health and medical care	Course	Certificate of successfully completed course, issued by course leader

Competence within medical science and quality work

Intermediate objective 18	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Course	Certificate of successfully completed course, issued by course leader
	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor
	Large professional assembly	

Intermediate objective 19	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor

Thoracic surgery

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Competence within medical science and quality work

Introduction

On June 24, 2008, The National Board of Health and Welfare (Socialstyrelsen) decided to issue new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists of a general part with common provisions for all specialties and a specific part with all the descriptions of objectives. The description of objectives for the respective specialties should be understood against the background of the provisions in the general part.

In each description of objectives, there is a section headed 'Training structure', which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the current area

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor

continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring

see mentor

handle

to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle

as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate

as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection

reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service

health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course

teacher-led training with an established plan, given during a defined period of time

sitting-in

training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar

instruction in group form with active participation

training in a simulated environment

training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competencies

Definition of area of competence

The specialty of thoracic surgery includes advanced studies and skills in the matter of handling the kind of congenital or acquired disorders and damage to the organs of the thoracic cavity, the chest wall and diaphragm that are treated using surgical methods. The specialty includes both acute and non-acute disorders and damage and also acute and planned measures. The majority of cardiac surgical procedures are carried out by means of extracorporeal circulation and open surgery. At the same time, there is a trend towards endoscopic methods and endovascular techniques that is expected to increase in extent.

Competence requirements

Competence requirements for medical competence

For specialist competence in thoracic surgery, an all-round and advanced understanding of pathogenesis, pathophysiology, epidemiology, diagnostics and different treatments for deformities, diseases, and damage to the organs of the thoracic cavity, chest wall, and diaphragm are required. For specialist competence, good practical skills in the majority of forms of investigation and treatment that occur, as well as the handling of acute conditions, are further required. Great emphasis is put on mastering the most common heart and lung operations and indications for these.

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for the patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for the patients' involvement and responsibility for their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by an understanding of and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must have the ability to communicate, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competencies. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health and medical care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology including basic epidemiological concepts as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

The most suitable place for the majority of specialist training is at the thoracic surgery unit. In addition, the training should include simultaneous additional training in the specialties of anaesthetics, intensive care and cardiology.

Specialist training should begin and end at the thoracic surgery unit with simultaneous additional training organised in the middle of the training. Training will partially take place in the form of on-call duty, which is a necessity for assimilating medical competence.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To master basic surgical techniques	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 2	Teaching methods	Follow-up
To be able to initially handle thoracic trauma	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To master ordinary arrhythmia treatment and circulatory arrest	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To be able to handle post-operative complications	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To have an understanding of extracorporeal circulation and mechanical circulatory support	Auscultation under supervision in a unit where such operations are practised	
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To master the handling of post-operative bleeding and tamponade	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 7	Teaching methods	Follow-up
To have an understanding of pacemaker treatment and arrhythmia surgery	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To have an understanding of lung cancer treatment and be able to handle bullous lung disease	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To have an understanding of angiography, endovascular revascularisation, aneurism treatment and valve operations	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 10	Teaching methods	Follow-up
To have an understanding of the diagnostics and treatment of deformities, valve abnormalities and aortic diseases	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To master thoracotomy with lung resection and thorascopy	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 12	Teaching methods	Follow-up
To master coronary artery surgery and aortic valve operations	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Instructing under supervision	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management, and regulatory systems of health and medical care	Course	Certificate of successfully completed course, issued by course leader

Competence within medical science and quality work

Intermediate objective 19	**Teaching methods**	**Follow-up**
To be capable of adopting a scientific outlook and approach	Course	Certificate of successfully completed course, issued by course leader
	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor

Intermediate objective 20	**Teaching methods**	**Follow-up**
To have an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor

Orthopaedics

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Introduction

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have understanding

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mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

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continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring

see mentor

handle

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as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

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reflection done in a group together with other doctors, chiefly for the purpose of further education and training

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health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course

teacher-led training with an established plan, given during a defined period of time

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training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

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large professional assembly
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health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competencies

Definition of area of competence

The speciality of orthopaedics includes an advanced understanding of and skills in congenital and acquired disorders and damage to the musculoskeletal system. The specialty includes both acute and non-acute disorders and damage: fractures, degenerative and inflammatory conditions in the joints, tendons, muscles and nerves, spinal diseases and metabolic bone diseases. Interventions include surgical, pharmacological and rehabilitative measures. In addition to diagnostics, treatment and follow-up, individual and general preventive measures are included.

Diagnostics is based on analysis of the case history and extensive clinical examination, supplemented with radiological and endoscopic investigations and isotope and laboratory investigations. The treatment methods include surgical operations, medications, physiotherapy, occupational therapy, orthopaedic aids, social support, rehabilitation and health education. The patient perspective, jointly setting out the treatment plan and, the continuity of the patient-doctor relationship play a central role.

Orthopaedics is the base specialty for the branch specialty of hand surgery.

Competence requirements

Competence requirements for medical competence

For specialist competence in orthopaedics, it is necessary to master basic clinical and surgical techniques and fundamental pathophysiology with regard to both acute and chronic conditions in the musculoskeletal system through all the stages of life. It is also necessary to master basic pain management, intensive care and anaesthetics as regards musculoskeletal diseases. It is also necessary to be able to initially handle general trauma situations. In addition to this, an understanding of habilitative and rehabilitative measures and prevention (intermediate objectives 1–3 and 12) is required.

For specialist competence in orthopaedics, it is also necessary to be able to evaluate and initially handle ordinary orthopaedic trauma in adults and children, to be able to handle the most common fractures by means of operations and to have the ability to define an action plan for more severe damage in consultation with experienced colleagues.

For specialist competence in orthopaedics, the understanding and skills necessary to be able to evaluate, diagnose and handle common painful conditions in the back and joints and to recognise and initially handle potentially function-threatening conditions are also necessary. It is also necessary too be able to handle orthopaedic consequences of metabolic and circulatory disorders and infections and to be able to initially handle these.

Finally, it is necessary to be able to work as part of a team and with representatives from other surgical specialties, anaesthetics and intensive care, radiology, rheumatology, geriatrics, general practice, neurology, oncology, internal medicine, and industrial and environmental medicine, as well as medico-actuarial science.

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for the patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentives for the patients' involvement and responsibility for their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must have the ability to communicate, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competencies. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health and medical care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology including basic epidemiological concepts as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

It is important that specialist medical training involves a logically clear and continuous professional development. Well thought-out management of intermediate objectives and teaching elements, in terms of time, including courses are, therefore, imperative if the doctor is to achieve the objectives for competencies.

Service can be divided into four stages, all of which include theory and practical work:

This means that the focus should initially be on acute orthopaedics and traumatology.

This is then followed by basic orthopaedics, initially replacement arthroplasty of the hip, arthroscopic operations on the knee joint, amputations, simple hand and foot surgery and further fracture surgery.

After that, it is important that ST doctors receives simultaneous additional training, primarily through service in anaesthetics and intensive care, but also with the opportunity for supplementary simultaneous additional training and advanced studies in one or more of the following specialties: hand surgery, neurological surgery, surgery, vascular surgery, plastic surgery and rheumatology.

Finally, it is also important that advanced studies continue in the specialty and its separate areas, such as musculoskeletal tumour diseases, arthroplastic surgery, child orthopaedics, and spinal orthopaedics, as well as in medical conditions of the upper and lower extremities and how to handle these. In some cases, there are, therefore, grounds for some of the future advance training involving service at another unit.

Professional development in leadership, supervision, and instruction, as well as basic scientific training, should be regarded as integral parts and take place continuously during the entire training.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To master basic clinical and surgical techniques	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 2	Teaching methods	Follow-up
To have an understanding of basic pathophysiology and master basic pain management, intensive care and anaesthetics in musculoskeletal diseases	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To be able to initially handle trauma	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Diagnostics and treatment symposium	
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To be able to handle orthopaedic traumas, fractures and other acute musculoskeletal conditions	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Diagnostics and treatment symposium	
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To be able to handle musculoskeletal injuries, diseases and painful conditions in children	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Diagnostics and treatment symposium	
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To be able to handle injuries, diseases and painful conditions in the back	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Diagnostics and treatment symposium	
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To be able to handle injuries, diseases and painful conditions in the upper extremity	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Diagnostics and treatment symposium	
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To be able to handle injuries, diseases and painful conditions in the hip and knee joints	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Diagnostics and treatment symposium	
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To be able to handle injuries, diseases and painful conditions in the foot and ankle	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Diagnostics and treatment symposium	
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To be able to initially handle tumours in the musculoskeletal system	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To be able to handle metabolic and circulatory disorders with orthopaedic consequences and handle musculoskeletal infectious conditions	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Diagnostics and treatment symposium	
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To be able to handle strain injuries, habilitation, rehabilitation, insurance medicine and certificates	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Instructing under supervision	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Health care teamwork under supervision	

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management, and regulatory systems of health and medical care	Course	Certificate of successfully completed course, issued by course leader

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Course	Certificate of successfully completed course, issued by course leader
	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor
	Large professional assembly	

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor
	Theoretical studies	

Hand surgery

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initially evaluate

as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection

reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service

health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course

teacher-led training with an established plan, given during a defined period of time

sitting-in

training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar

instruction in group form with active participation

training in a simulated environment

training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competencies

Definition of area of competence

The specialty of hand surgery includes investigation, evaluation, diagnostics, surgical and non-surgical treatment, follow-up, and rehabilitation of all types of injuries and medical conditions in the forearm and hand. The area of competence also covers conditions that affect the functionality of the hand and arm, such as damaged nerves in the upper extremity and plexus, spastic conditions and tetraplegia.

Operations within the hand surgery specialty are, to a great extent, highly specialised, which means taking care of an often select patient group. Common and simple conditions should be able to be remedied within the surgical or orthopaedic basic health care. In this specialty, patients from all age groups are handled, but where occupational injuries and conditions constitute a large proportion of hand surgery activity, the average age is low. Functional evaluations are also performed and some preventive work is also practiced.

The basis of hand surgery activity is the hand as a sense organ, with its unique integral functionality for gripping and touch. The specialty is characterised by reconstructive and functional thinking. Although surgical methods are key treatment options, an integrated way of working with habilitation and rehabilitation units is required.

Cooperation with other specialties is necessary and essential, particularly with orthopaedics, vascular surgery, radiology diagnostics, clinical neurophysiology, rheumatology, paediatrics and industrial and environmental medicine.

The hand surgery specialty is a branch specialty of the base specialty of orthopaedics.

Competence requirements

Competence requirements for medical competence

For specialist competence in hand surgery, it is necessary to master clinical examination of the upper extremity and its functional and topographic anatomy. An understanding of the interplay between the central and peripheral nervous systems is also required. It is also necessary to be able to handle acute conditions, degenerative, post-traumatic and inflammatory disorders and other medical conditions in the upper extremity. It is also necessary to be able to initially handle dysfunction in the extremity. For reconstruction of the extremity's functions, special skills in surgical techniques when operating on both soft tissue and the skeleton and joints in the hand and arm are required.

In order to be able to diagnose and treat injuries and medical conditions in the area of competence for hand surgery, it is also necessary to be able to evaluate disorders and damage in the rest of the musculoskeletal system and

handle disorders and traumatic conditions that require coverage of the skin of the upper extremity. An understanding of investigatory techniques and rehabilitation is also required.

For specialist competence in hand surgery, it is also necessary to master basic clinical and surgical techniques and fundamental pathophysiology with regard to both acute and chronic conditions in the musculoskeletal system throughout all stages of life. It is also necessary to master basic pain management, intensive care and anaesthetics as regards musculoskeletal diseases. It is also necessary to be able to initially handle general trauma situations. In addition to this, an understanding of habilitative and rehabilitative measures and prevention (intermediate objectives 1–3 and 12) are required.

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for the patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for the patients' involvement and responsibility for their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by an understanding of and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must have the ability to communicate, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competencies. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health and medical care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology including basic epidemiological concepts as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objec-

tive is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

Specialist medical training in hand surgery can begin before, during, or after specialist medical training in orthopaedics and can be integrated with it.

The training should involve logical, clear and continuous professional development. Well thought–out management of service and courses should take place in accordance with the individual training plan. The intention is for ST doctors to develop the basic understanding and skills required for independent shift work and further training in hand surgery operations.

Service can be divided into four stages, all of which include theory and practical work:

1. Initially, a short period of service at a hand surgery clinic will be appropriate, for an introduction and general overview of the subject field.
2. After that, simultaneous additional training in orthopaedics, anaesthetics and intensive care as well as plastic surgery should be carried out. Further suitable areas for simultaneous additional training are vascular surgery, neurophysiology, and radiology diagnostics.
3. After this, a long, continuous period at a hand surgery clinic should follow, so that ST doctors can acquire the basic skills in the hand surgery area in accordance with the intermediate objectives.
4. An advanced understanding and experience in different fields of the area of competence can begin to be provided during the latter part of specialist training. Competence in leadership, supervision and instruction and also science should be acquired at the end of the training period.

ST doctors should also be given the opportunity to take part in national and international scientific meetings during the training period.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To master basic clinical and surgical techniques	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 2	Teaching methods	Follow-up
To have an understanding of basic pathophysiology and to master basic pain management, intensive care and anaesthetics in musculoskeletal diseases	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To be able to initially handle trauma	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Diagnostics and treatment symposium	
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To master clinical examination of the upper extremity and its functional and topographic anatomy	Clinical service under supervision in a unit that handles these conditions	Certificate of clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To be able to evaluate disorders and damage within the musculoskeletal system	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To be able to handle disorders and traumatic conditions in the area of competence that requires special measures for coverage of the skin	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To be able to handle acute conditions within the area of competence	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To be able to handle degenerative, post-traumatic and inflammatory disorders within the area of competence.	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To be able to handle medical conditions in the upper extremity	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To be able to initially handle dysfunctions in the upper extremity	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To master special surgical techniques for the reconstruction of hand functionality	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To be able to handle strain injuries, habilitation, rehabilitation, insurance medicine and certificates	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by mentor
	Instructing under supervision	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Health care teamwork under supervision	

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management, and regulatory systems of health and medical care	Course	Certificate of successfully completed course, issued by course leader

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Course	Certificate of successfully completed course, issued by course leader
	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor
	Large professional assembly	

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor
	Theoretical studies	

Anaesthetics and intensive care

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Introduction

On June 24, 2008, The National Board of Health and Welfare (Socialstyrelsen) decided to issue new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists of a general part with common provisions for all specialties and a specific part with all the descriptions of objectives. The description of objectives for the respective specialties should be understood against the background of the provisions in the general part.

In each description of objectives, there is a section headed 'Training structure', which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the current area

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor

continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring

see mentor

handle

to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle

as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate

as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection

reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service

health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course

teacher-led training with an established plan, given during a defined period of time

sitting-in

training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar

instruction in group form with active participation

training in a simulated environment

training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competencies

Definition of area of competence

The specialty of anaesthetics and intensive care covers pre-, intra- and post-operative care, anaesthetics and pain management during diagnostic and therapeutic procedures, intensive care, acute care of patients with serious diseases or injuries, pre-hospital care and transport medicine, and pain management for acute pain, childbirth and cancer patients.

The specialty is characterised by an interprofessional approach.

Competence requirements

Competence requirements for medical competence

For specialist competence in anaesthetics and intensive care, the understanding, skills and approaches required in order to be able to work independently in the specialty at hospitals with a wide spectrum of acute specialists, including maternity care and involving round-the-clock operations, are required. This requires an understanding of and skills in monitoring, supporting and restoring the body's vital functions during surgical operations, major injuries or serious diseases in all age groups.

In order to evaluate benefits or risks, an understanding of pathology, diagnostics techniques and therapeutic methods are required in addition to an understanding of anaesthetics and medical techniques.

The competence requirement also involves being able to direct the work around critically ill patients inside and outside the hospital. This involves prioritising patients with different diseases or injuries and stabilising treatment during transport.

An important competence is being able to handle complex, acute situations adequately and having the ability to make ethical decisions in life-threatening conditions.

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for the patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients'

needs, desires and right to self-determination, as well as providing incentives for the patients' involvement and responsibility for their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as, language, ethnicity, sexual orientation, and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must have the ability to communicate, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competencies. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership

must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health and medical care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology including basic epidemiological concepts as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

It is of the utmost importance that service is arranged in care units so that ST doctors can achieve the training objectives set out, which may involve one or more units depending on the health care structure. The care units where the majority of service takes place should have anaesthetics and intensive care operations with hospital-based on-call duty doctors, and ST doctors should be included in this on-call rota.

An introductory period should be devoted to clinical activity in anaesthetics and intensive care. The objective is for ST doctors to be able to independently handle routine anaesthetics with the associated perioperative care. This period is for the purpose of acquiring the competence to act as a hospital-based on-call duty doctor.

The period after the introductory period should be devoted to advanced studies in anaesthetics and intensive care and also simultaneous additional

training. Anaesthetics service placements that should be included are peri-operative care in connection with abdominal surgery, vascular surgery, orthopaedics, trauma, obstetrics and ear nose and throat surgery.

The last part of the training should include closely connected, lengthy placements in an intensive care unit and in specialist anaesthetics. Some of the intensive care placement should take place at a multi-disciplinary intensive care unit. Here, specialist anaesthetics means thoracic, neuro- and paediatric anaesthetics.

Simultaneous additional training should supplement the main training in anaesthetics and intensive care and ST doctors's previous experience. The objective is for ST doctors to gain an insight into disorders that involved an increased peri-operative risk and into the disorders that are relevant for intensive care. In so doing, ST doctors will acquire a greater understanding of his own and other specialties' activities and approaches, which will provide opportunities for effective collaboration.

During the entire training, practical work will be sandwiched with theory. The periods of service should be connected. Theoretical training should take place through self-study, instruction at the clinic and participation in courses and scientific meetings.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To master suitable elements of the basic medical and natural sciences.	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 2	Teaching methods	Follow-up
To master the medical technology equipment used in the specialty	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To master risk assessment and perioperative care in both surgical operations and diagnostic and therapeutic procedures	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To master diagnostic and therapeutic methods and benefits/risk assessments	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by cur-
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To master anaesthetics in surgical operations and in diagnostic and therapeutic procedures	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by cur- rent mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To be able to handle intensive care in medical and surgical medical conditions	Clinical service under su- pervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To master a professional approach to patients and their next of kin in connec- tion with making ethical decisions on life-threatening conditions and concluding when treatment is to end	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by cur- rent mentor
	Diagnostics and treatment symposium	
	Sitting-in	

Intermediate objective 8	Teaching methods	Follow-up
To master the evaluation and treatment of acute pain and childbirth pain and initially handle cancer pain	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To master the care of extremely ill and injured patients and be able to handle complex and acute situations under stress	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To be able to handle patients at the scene of the accident and outside of care units, transport patients with failing vital functions between and inside hospitals and have a good understanding of catastrophe medicine	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To be able to handle patients in at least one specialist anaesthetics area with associated intensive care and have an understanding of other specialist anaesthetics areas	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To have an understanding of the operations and approaches of other specialties that are relevant for a multi-disciplinary approach	Clinical service under supervision where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Sitting-in	

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Instructing under supervision	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Health care teamwork under supervision	

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management, and regulatory systems of health and medical care	Course	Certificate of successfully completed course, issued by course leader

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor

Obstetrics and gynaecology

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In each description of objectives, there is a section headed 'Training structure', which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the current area

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor

continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring

see mentor

handle

to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle

as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate

as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection

reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service

health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course

teacher-led training with an established plan, given during a defined period of time

sitting-in

training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar

instruction in group form with active participation

training in a simulated environment

training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competencies

Definition of area of competence

The specialty of obstetrics and gynaecology covers acute and non-acute conditions and disorders. The specialty includes prevention, investigation, diagnostics, treatment and follow-up of normal and pathological pregnancy, childbirth and puerperium and also prevention, investigation, diagnostics, treatment and follow-up of dysfunctions and disorders of the female reproductive organs and reproductive medical conditions. In the obstetrics and gynaecology specialty, multi-faceted problems are handled and the area of competence includes ethical, psychosocial, social, and multicultural aspects.

Competence requirements

Competence requirements for medical competence

For specialist competence in obstetrics and gynaecology it is necessary to master normal pregnancy, childbirth and puerperium, contraconception and induced abortion, basic surgical techniques, pre- and post-operative evaluation and care, acute gynaecological conditions and differential diagnostics, investigation, diagnostics and follow-up of sexually transmitted infections, basic investigation, diagnostics, treatment and follow-up of benign conditions in the pelvic floor and lower urinary tract, handling of pre-cancerous gynaecological conditions and malign tumours in the genitals and initial handling of benign gynaecological conditions in the vagina, uterus and adnexa. It is also necessary to be able to handle common reproductive endocrinological conditions and sexual assaults and to have an understanding of investigation into and treatment of infertility. Special emphasis is put on the requirement to be able to handle acute conditions independently. For specialist competence, a theoretical understanding, practical skills and the ability to initially handle less common conditions in obstetrics and gynaecology and to have documented theoretical and practical competence as regards the diagnostic and therapeutic methods available and to have an adequate understanding of the medicine technology equipment used in the specialty are also required.

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for the patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentives for the patients' involvement and responsibility for their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by an understanding of and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must have the ability to communicate, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competencies. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health and medical care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology including basic epidemiological concepts as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

The training includes basic training, joint advanced training and simultaneous additional training.

The basic training is an introductory period of service in obstetrics and gynaecological out- and in-patient care with emphasis on commonly occurring acute conditions.

Joint advanced training may involve continued service in all the areas of the specialty for lengthy, uninterrupted periods. The aim is for ST doctors to achieve the requirements of the description of objectives.

Simultaneous additional training will involve service in related specialties. Simultaneous additional training in surgery is particularly important in order for ST doctors to achieve basic surgical competence and the equivalent in anaesthetics and intensive care. In obstetric competence, it is particular important to obtain experience of service at a large obstetric unit with neonatal care. A further option is for simultaneous additional training in gynaecological oncology to be included in the specialist medical training.

It is important that the ST service constitutes a logically clear and continuous professional development. Well thought-out, timely management of competence requirements and teaching elements, including courses, is important.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To master normal pregnancy, childbirth and puerperium	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 2	Teaching methods	Follow-up
To be able to initially handle complicated pregnancies	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To be able to initially handle complicated childbirth and asphyxia in children	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To master contraception and induced abortion	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To master basic surgical techniques and pre-and post-operative evaluations and care	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To master acute gynaecological conditions and differential diagnostics	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To be able to handle common reproductive endocrinological conditions and have an understanding of investigations into and treatment of infertility	Clinical service under supervision in a unit where such operations are practised or auscultation under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor or certificate of approved auscultation and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To master diagnostics and treatment of sexually transmitted infections and to be able to initially handle vulvar disorders	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To master basic investigation into and treatment of benign conditions in the pelvic floor and lower urinary tract	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To master initial handling of pre-cancerous gynaecological conditions and malignant tumours in the genitals	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To master initial handling of benign gynaecological conditions in the vagina, uterus and adnexa	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To be able to initially evaluate conditions in psychosocial obstetrics and gynaecology, including sexology, and be able to handle sexual assaults	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin on the basis of the individual in question's requirements and needs taking into account transcultural aspects and diversity	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication with other doctors and co-workers, as well as with representatives of the public and various civil authorities	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Instructing under supervision	
	Theoretical studies	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers and students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading in collaboration and dialogue with co-workers and within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management, and regulatory systems of health and medical care	Course	Certificate of successfully completed course, issued by course leader

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Course	Certificate of successfully completed course, issued by course leader
	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and development work.	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor

Intermediate objective 21	Teaching methods	Follow-up
To have an understanding of research methodology	Course	Certificate of successfully completed course, issued by course leader

Otorhinolaryngology

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Introduction

On June 24, 2008, The National Board of Health and Welfare (Socialstyrelsen) decided to issue new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists of a general part with common provisions for all specialties and a specific part with all the descriptions of objectives. The description of objectives for the respective specialties should be understood against the background of the provisions in the general part.

In each description of objectives, there is a section headed 'Training structure', which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the current area

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor

continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring

see mentor

handle

to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle

as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate

as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection

reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service

health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course

teacher-led training with an established plan, given during a defined period of time

sitting-in

training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar

instruction in group form with active participation

training in a simulated environment

training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competencies

Definition of area of competence

The specialty of otorhinolaryngology includes diseases, trauma, deformities and dysfunctions in the ear, temporal bone and lateral base of the skull, in the nose, sinuses and front base of the skull, in the oral cavity, pharynx, larynx, windpipe, oesophagus, head, throat, thyroid gland, salivary glands and adjacent structures and parts of the head and throat area in children and adults.

The specialty includes investigation, diagnostics, treatment and follow-up of conditions that affect hearing, balance, the senses of smell and taste, swallowing, the voice, speech and language and also cranial nerve disorders.

In addition to investigation, diagnostics, treatment and follow-up, preventive activity focusing on individuals or groups is included.

There is a great deal of related knowledge and cooperation with the specialties of audiology and phoniatrics. As a result of related knowledge and skills, otorhinolaryngology also involves cooperation with the infectious medicine, allergology, respiratory diseases, paediatrics, anaesthetics and intensive care, surgery, plastic surgery, neurology and oncology specialties and the oral surgery field of knowledge as well as sharing an extensive area for collaboration with general practice and industrial and environmental medicine. Cooperation with audiologists, hearing therapists and speech therapists and an understanding of activities in organisations for the handicapped and patients with a connection to the field are also of great importance.

Otorhinolaryngology is the base specialty for the branch specialties of audiology and phoniatrics.

Competence requirements

Competence requirements for medical competence

For specialist competence in otorhinolaryngology, a theoretical understanding of anatomy, physiology, pathology, aetiology and symptomatology is required. It is also necessary to master medical investigation and the treatment of the common and serious medical conditions regarding hearing and balance, the ear, temporal bone, lateral base of the skull, nose, sinuses and front base of the skull, oral cavity, pharynx, larynx, windpipe, oesophagus, head, throat, thyroid gland, salivary glands and adjacent structures. Surgical skills in the aforementioned areas are also required and necessary in order to be able to handle the common and serious conditions in the specialty independently. This involves a basic understanding of the respective area and practical skills in the investigation and treatment methods available and in following up results. Special emphasis is placed on competence in being able to handle acute and life-threatening conditions independently (intermediate objectives 1-4).

For specialist competence in otorhinolaryngology, it is also necessary to master basic rigid and flexible endoscopic diagnostics and treatment in the field, including the oesophagus and respiratory system. It is also necessary to master treatment of the common and important infectious conditions and to be able to handle the investigation and treatment of allergological and inflammatory conditions.

In addition, it is necessary to master diagnostics and to be able to initially handle the treatment of surgical and non-surgical diseases of the nose and sinus. An understanding of diseases of the front base of the skull is also necessary. It is also necessary to be able to handle diagnostics and surgical and non-surgical treatment of diseases and dysfunction in the oral cavity, pharynx and oesophagus, to master initial diagnostics and to be able to initially handle surgical and non-surgical treatment of suspected tumours in the specialty of otorhinolaryngology. In addition, it is necessary to be able to handle surgically the common and important non-malignant diseases of the soft parts in the head and throat regions.

For specialist competence in otorhinolaryngology, it is also necessary to master acute handling and to be able to initially handle surgical treatment of trauma in the head and throat region. In addition, it is necessary to be able to handle surgical diseases of the ear, temporal bone and lateral base of the skull and to be able to handle complications and follow up these conditions.

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for the patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentives for the patients' involvement and responsibility for their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by an understanding of and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must have the ability to communicate, both in writing and orally, with other doctors and co-workers showing re-

spect for their professional knowledge and competencies. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health and medical care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology including basic epidemiological concepts as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

The majority of the clinical service necessary will be obtained in an otorhinolaryngology unit. During the introductory part, emphasis should be put on service in the specialty's acute and basic activity. There is a very great deal of related knowledge and cooperation with the specialties of audiology and phoniatrics, which is why ST doctors is strongly recommended to serve within these branch specialties during training.

Every attempt should be made to ensure connected service periods in the different fields of activity.

In addition, it is imperative and important that service at a university clinic is included for a longer period of time. Service at a university clinic should be planned in such a way that it adds value in addition to the service at the ordinary otorhinolaryngology unit.

The specialty of otorhinolaryngology has a common knowledge base with other surgical specialties. That is why it is extremely important that ST doctors gain basic surgical and anaesthesiological understanding and skills that include surgical techniques, taking care of acute cases, preventing common complications and an understanding of different forms of narcososis and pain management.

Simultaneous additional training in another specialty is, therefore, of great importance, particularly in anaesthetics and surgery or plastic surgery. In addition, simultaneous additional training in one or more of the following areas is useful: paediatrics, infection, neurology, neurological surgery, oncology, pulmonary medicine, allergic diseases, radiology diagnostics and oral sur-

gery. This is best achieved by supplementing the main service with service or auscultation in the aforementioned fields of knowledge.

Theoretical studies will be conducted in parallel with clinical service. ST doctors should also take part in courses and conferences.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To master diagnostics and surgical and non-surgical treatment of common and important diseases in the otorhinolaryngology, particularly the acute conditions	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 2	Teaching methods	Follow-up
To master basic clinical investigation and basic interpretation of imaging, functional and laboratory diagnostics in otorhinolaryngology	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Auscultation under supervision in a unit that handles these conditions	
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To master basic clinical investigation and interpretation of the common test methods with regard to hearing and vestibular functionality as well as surgical and non-surgical treatment of the common and important diseases of the hearing and balance organs	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To master clinical investigation and basic surgical and non-surgical treatment of the common and serious medical conditions in the larynx and respiratory system and voice and speech function disorders.	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To master fundamental rigid and flexible endoscopic diagnostics and treatment in otorhinolaryngology, including the oesophagus and respiratory system	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	

Intermediate objective 6	Teaching methods	Follow-up
To master examination and treatment of common and important infectious conditions and be able to handle the examination and treatment of allergological and inflammatory conditions in otorhinolaryngology	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To master diagnostics and be able to initially handle the treatment of surgical and non-surgical diseases of the nose and sinuses and have an understanding of diseases of the front base of the skull	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To be able to handle diagnostics and non-surgical treatment of diseases and dysfunction of the oral cavity, pharynx and oesophagus	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To master initial diagnostics and be able to initially handle surgical and non-surgical treatment of diseases in otorhinolaryngology	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Health care teamwork under supervision	
	Diagnostics and treatment symposium	
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To be able to handle surgically the common and important non-malignant diseases of the soft parts of the head and throat regions	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To master acute handling and be able to initially handle surgical treatment of trauma in the head and throat regions	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by cur-
	Auscultation under supervision in a unit that handles these conditions	
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To be able to handle surgical diseases of the ear, temporal bone and lateral base of the skull and be able to handle complications and follow-ups regarding these diseases	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Instructing under supervision	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 18	Teaching methods	Follow-up
To have understanding of the organisation, management, and regulatory systems of health and medical care	Course	Certificate of successfully completed course, issued by course leader

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor

Audiology

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Medical competence
Communicative competence
Leadership competence
Competence within medical science and quality work

Introduction

On June 24, 2008, The National Board of Health and Welfare (Socialstyrelsen) decided to issue new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists of a general part with common provisions for all specialties and a specific part with all the descriptions of objectives. The description of objectives for the respective specialties should be understood against the background of the provisions in the general part.

In each description of objectives, there is a section headed 'Training structure', which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the current area

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor

continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring

see mentor

handle

to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle

as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate

as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection

reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service

health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course

teacher-led training with an established plan, given during a defined period of time

sitting-in

training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar

instruction in group form with active participation

training in a simulated environment

training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competencies

Definition of area of competence

The specialty of audiology includes the handling and treatment of patients with disorders of the hearing and balance system. Audiology is a medical specialty that combines medicine and technology with a psychosocial approach. The specialty is individually focused with clinical and laboratory diagnostics and treatment including medical, technical, habilitative and rehabilitative measures and preventive initiatives. Central to this are knowledge and understanding of the physiology of hearing and balance, and the consequences of impaired hearing, tinnitus, sensitivity to sound, and balance disorders for both the individual and society.

Audiology is a branch specialty of the base specialty of otorhinolaryngology.

Competence requirements

Competence requirements for medical competence

For specialist competence in audiology, an understanding is required of the audiological and vestibular areas in order to be able to independently handle and treat patients with disorders of and symptoms in the hearing and balance system. A method of working that makes it possible to work together with other professional groups in the audiological and adjacent areas, particularly audiologists and hearing therapists, is also required. An understanding is also required of the effect that sound and the noise environment have on people. An understanding of organisations for the handicapped and patients with a connection to the field is also required.

For specialist competence in audiology, a theoretical understanding of anatomy, physiology, pathology, aetiology and symptomatology is also required. It is also necessary to master medical investigation and the treatment of the common and serious medical conditions with regard to hearing and balance, the ear, temporal bone, lateral base of the skull, nose, sinuses and front base of the skull, oral cavity, pharynx, larynx, windpipe, oesophagus, head, throat, thyroid gland, salivary glands and adjacent structures. Surgical skills in the aforementioned areas are also required and necessary in order to be able to independently handle common and serious conditions in the specialty. This involves a basic understanding of the respective areas, and practical skills both in the investigation and treatment methods available and in following up on results. Special emphasis is placed on competence in being able to handle acute and life-threatening conditions independently (intermediate objectives 1-4).

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for the patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentives for the patients' involvement and responsibility for their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by an understanding of and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must have the ability to communicate, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competencies. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health and medical care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology including basic epidemiological concepts as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

Specialist medical training in audiology can begin before, during, or after specialist medical training in otorhinolaryngology and can be integrated with it.

The specialty shares a common knowledge base with the base specialty of otorhinolaryngology. During the introductory part, emphasis should be put on service in acute and basic ear, nose, and throat activity. ST doctors should, however, begin service in audiological and vestibular activity at an early stage in his training. Service in otorhinolaryngology and audiology should then be layered in an adequate manner until the stipulated knowledge requirement has been achieved.

It is at units that perform audiological and vestibular diagnostics and treatment that the majority of the knowledge required can be obtained with regard to the area of competence of audiology. In order to gain experience of the continuity of the relationship with the doctor, which is a prerequisite for understanding patients with permanent dysfunctions, a lengthy uninterrupted period of service will be required. It is also important to have a lengthy period of service at the university clinic so that ST doctors can acquire an advanced understanding of audiological and vestibular diagnostics and science.

It is also important for ST doctors to gain experience in the different specialties and activities that have points in common with audiology. This is achieved by supplementing the main service with service in one or more of the following specialties: neurology, paediatrics, geriatrics, clinical genetics and psychiatry. Auscultation after study visits may, in some cases, cover smaller elements of the area of competence.

In parallel with clinical service, ST doctors should be given the opportunity to conduct theoretical studies and take part in courses and conferences.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To master diagnostics and surgical and non-surgical treatment of common and important diseases in otorhinolaryngology, particularly the acute conditions	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 2	Teaching methods	Follow-up
To master basic clinical investigation and basic interpretation of imaging, functional and laboratory diagnostics in otorhinolaryngology	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Auscultation under supervision in a unit that handles these conditions	
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To master basic clinical investigation and interpretation of the common test methods with regard to hearing and vestibular functionality as well as surgical and non-surgical treatment of the common and important diseases of the hearing and balance organs	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To master clinical investigation and basic surgical and non-surgical treatment of the common and serious medical conditions in the larynx and respiratory system and voice and speech function disorders.	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To master examination, diagnostics, treatment and follow up of the most common reasons for hearing impairments in adults	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To master examination, diagnostics, treatment and follow up of the most common reasons for hearing impairments in children	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To master examination, diagnostics, treatment and follow-up of tinnitus and dysacousia	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Auscultation under supervision in a unit that handles these conditions	
	Course	Certificate of successfully completed course, issued by course leader
	Health care teamwork under supervision	
	Large professional assembly	
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To master investigation, diagnostics, treatment and follow-up of vestibular vertigo and balance disorders and to be able to evaluate the diseases in other areas that affect the balance system	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To master medical, technical, psychosocial and pedagogic rehabilitation of adults and children with peripheral and fundamental hearing problems	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Auscultation under supervision in a unit that handles these conditions	
	Course	Certificate of successfully completed course, issued by course leader
	Health care teamwork under supervision	
	Large professional assembly	
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To master the execution and interpretation of available audiological, vestibular and otoneurological test methods	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To master indications for hearing aids and have an understanding of alternative means of communication for the deaf and those with impaired hearing	Auscultation under supervision in a unit that handles these conditions	
	Course	Certificate of successfully completed course, issued by course leader
	Health care teamwork under supervision	
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To be able to handle the effects of noise and the noise environment on people for information and prevention and have an understanding of the physics of sound and acoustics	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management, and regulatory systems of health and medical care	Course	Certificate of successfully completed course, issued by course leader

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor

Phoniatrics

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Introduction

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auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the current area

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor

continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring

see mentor

handle

to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle

as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate

as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection

reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service

health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course

teacher-led training with an established plan, given during a defined period of time

sitting-in

training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar

instruction in group form with active participation

training in a simulated environment

training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competencies

Definition of area of competence

The specialty of phoniatrics includes the handling of patients with voice, speech, or language function disorders, and with swallowing problems with the emphasis on motor activity disorders of the oral cavity, as well as pharynx and larynx-related breathing obstructions. Phoniatrics is a specialty that combines medicine with basic linguistics, technology and a psychosocial approach. The specialty focuses on clinical and laboratory investigation, diagnostics and treatment, which includes medical, surgical, habilitative, rehabilitative and preventive measures and the follow-up of these. Evaluation and handling of occupational voice problems - in both persons with occupations that make demands on their voices and in cases where the working environment appears to have a harmful effect on the functioning of the voice – are also part of the sphere of activity.

Cooperation with other occupational groups, particularly speech therapists, but also physiotherapists, neurophysiologists, paediatricians, oncologists, dentists and pulmonologists is of great importance. An understanding of activity in organisations for patients and the handicapped with a connection to the field is also part of this.

Phoniatrics is a branch specialty of the base specialty of otorhinolaryngolgy.

Competence requirements

Competence requirements for medical competence

Specialist competence in phoniatrics requires an understanding of anatomy, physiology, pathology, aetiology, symptomology, and the necessary treatments of disorders of the voice, speech and language functions, in order to be able to independently diagnose and deal with the majority of the conditions in the specialty. This involves a theoretical understanding of the different areas of the specialty and practical skills in the investigation methods available, both non-surgical and surgical treatment methods and following up results.

A theoretical understanding of anatomy, physiology, pathology, aetiology and symptomatology is also required for specialist competence in phoniatrics. It is also necessary to master medical investigation and the treatment of the common and serious medical conditions with regard to hearing and balance, the ear, temporal bone, lateral base of the skull, nose, sinuses and front base of the skull, oral cavity, pharynx, larynx, windpipe, oesophagus, head, throat, thyroid gland, salivary glands and adjacent structures. Surgical skills in the aforementioned areas are also required and necessary in order to be able to handle the common and serious conditions in the specialty independently. This involves a basic understanding of the respective area and

practical skills in the investigation and treatment methods available and in following up results. Special emphasis is put on competence in being able to handle acute and life-threatening conditions (intermediate objectives 1-4).

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for the patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentives for the patients' involvement and responsibility for their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by an understanding of and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must have the ability to communicate, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competencies. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addi-

tion to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health and medical care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology including basic epidemiological concepts as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for

promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

Specialist medical training in phoniatrics can begin before, during, or after specialist medical training in otorhinolaryngology and can be integrated with this.

The specialty shares a common knowledge base with otorhinolaryngology. During the introductory part, emphasis should be put on service in acute and basic otorhinolaryngology. The majority of specialist medical training in phoniatrics should then be obtained at a specialist unit at a university hospital where ST doctors will have the opportunity to ask for advice while working, for mutual sitting-in and joint examination of documentation, with the focus on recordings of images and audio.

In order for ST doctors to obtain experience of the continuity of the doctor-patient relationship, which is a prerequisite for understanding patients with verbal communication disorders, a lengthy, uninterrupted period of service will be important.

At the same time, it is important that ST doctors gains experience of other specialties that have points in common with phoniatrics. A good way to achieve this is through supplementing the main service with simultaneous additional training, primarily in neurology, radiology and paediatrics, with the emphasis on habilitation and, in addition to this, in one or more of the following areas: oncology, geriatrics, paedodontics, oral surgery, pulmonary medicine and plastic surgery. This is best achieved through service, auscultation or study visits.

Theoretical studies should be conducted in parallel with clinical service. ST doctors should also take part in courses and conferences. Account should also be taken of the intended focus on phoniatrics when choosing courses and simultaneous additional training during training in the base specialty.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To master diagnostics and surgical and non-surgical treatment of common and important diseases in otorhinolaryngology, particularly the acute conditions	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 2	Teaching methods	Follow-up
To master basic clinical investigation and basic interpretation of imaging, functional and laboratory diagnostics in otorhinolaryngology	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Auscultation under supervision in a unit that handles these conditions	
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To master basic clinical investigation and interpretation of the common test methods with regard to hearing and vestibular functionality as well as surgical and non-surgical treatment of the common and important diseases of the hearing and balance organs	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To master clinical investigation and basic surgical and non-surgical treatment of the common and serious medical conditions in the larynx and respiratory system as well as voice and speech function disorders.	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To master an understanding of the anatomy of the vocal organs and voice physiology and to be able to handle voice disorders resulting from strain to the vocal organs, including the professional use of the voice. To be able to handle preventive voice care	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course or Large professional assembly	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To handle diagnostics and treatment, including basic surgery for voice and breathing disorders caused by structural changes to the larynx, including laryngeal trauma	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To master diagnostics and treatment of dysphagia, including fiber endoscopic investigation of swallowing and rigid and flexible oesophagoscopy	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Auscultation under supervision in a unit that handles these conditions	
	Course or Large professional assembly	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To master diagnostics, and follow-up of laryngeal cancer and be able to handle treatment of laryngeal cancer and rehabilitation after mutilating tumour treatment of the voice and speech organs	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Diagnostics and treatment symposium	
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To master diagnostics and be able to handle treatment of language, voice, speech and oral motor disorders in neurological disorders and dysfunctions To be able to handle the medical investigation and diagnostics of stammering and other speech rhythm disorders	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Auscultation under supervision in a unit that handles these conditions	
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To master investigation and be able to handle habilitation and rehabilitation of children and adults with language, speech and oral motor disorders caused by deformities or mental retardation	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Auscultation under supervision in a unit that handles these conditions	
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To master diagnostics and be able to handle patients with verbal communication or swallowing disorders caused by psychological, psychiatric or behavioural disorders	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To be able to handle diagnostics and treatment of voice disorders caused by respiratory dysfunction	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Auscultation under supervision in a unit that handles these conditions	
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Instructing under supervision	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management, and regulatory systems of health and medical care	Course	Certificate of successfully completed course, issued by course leader

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor

Ophthalmology

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Introduction

On June 24, 2008, The National Board of Health and Welfare (Socialstyrelsen) decided to issue new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists of a general part with common provisions for all specialties and a specific part with all the descriptions of objectives. The description of objectives for the respective specialties should be understood against the background of the provisions in the general part.

In each description of objectives, there is a section headed 'Training structure', which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the current area

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competencies

Definition of area of competence

The specialty of ophthalmology includes an understanding of and skills in both diseases that primarily affect the eye, and diseases that have an effect on the eyes or the eyesight. The specialty covers all medical conditions that affect the eye, the eye socket, the adnexa of the eye, and eyesight to some extent in all ages. The specialty also includes an understanding of optics and refraction, legal aspects of eyesight requirements in regard to traffic and various occupations, and also the ability to handle and interpret results from relevant testing apparatus. Close cooperation with the rest of the health service and with opticians is central to this. The specialty also includes an understanding of the development of a child's vision and low vision rehabilitation.

Competence requirements

Competence requirements for medical competence

Specialist competence in ophthalmology, requires understanding and skills in order to be able to independently investigate, diagnose, treat and follow up on diseases of the eye. Theoretical and practical competence and skills in current, adequate investigation and treatment methods and the ability to determine refraction and carry out a complete investigation of the eye are also required. In addition, it is necessary to master current equipment for diagnostics and treatment. Knowledge of anatomy, physiology and medical conditions in the different part of the eye and its adnexa is also required, with the emphasis on common diseases.

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for the patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentives for the patients' involvement and responsibility for their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must have the ability to communicate, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competencies. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health and medical care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology including basic epidemiological concepts as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

At an early stage in training, the emphasis should be put on investigation methods and the primary handling of acute eye diseases and injuries. It will gradually become more important for ST doctors to serve in a unit that handles the entire spectrum of common eye diseases in accordance with the intermediate objectives for the specialty. Every effort should be made to strive for uninterrupted periods with the focus on the different intermediate objectives.

Specialist medical training should also be able to provide some scope for advanced studies in one or more areas. Courses are important elements of the training and should, as far as possible, harmonise with ST doctors's other training, in terms of time.

During training, the opportunity should be taken to serve at different levels, such as service at a regional clinic in cases where ST doctors's home clinic is not a regional clinic. It is important that the content of the training during such service then puts great emphasis on the subareas in the specialty that the home clinic can offer.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To master optics and refraction	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	

Intermediate objective 2	Teaching methods	Follow-up
To master investigation methods and instruments within ophthalmology	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To be able to handle diseases of the eye's outer areas, adnexa and orbita	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 4	Teaching methods	Follow-up
To be able to handle cataracts and other diseases of the anterior segment of the eye	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	

Intermediate objective 5	Teaching methods	Follow-up
To be able to handle uveitis and other diseases of the uvea	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 6	Teaching methods	Follow-up
To be able to handle diabetic retinopathy, macular degeneration and other medical diseases of the retina	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 7	Teaching methods	Follow-up
To be able to initially handle the surgical diseases of the retina and vitreous body and tumours in the posterior segment of the eye	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	

Intermediate objective 8	Teaching methods	Follow-up
To be able to handle diseases of the eye in children and master the development of vision	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	

Intermediate objective 9	Teaching methods	Follow-up
To be able to handle different types of glaucoma	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 10	Teaching methods	Follow-up
To be able to initially handle neuro-ophthalmological diseases	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Auscultation under supervision in a unit where such operations are practised	
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 11	Teaching methods	Follow-up
To be able to initially handle diseases of the eye that are associated with other illnesses	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To have an understanding of vision rehabilitation	Auscultation under supervision in a unit where such operations are practised	
	Course	Certificate of successfully completed course, issued by course leader

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Sitting-in	

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Instructing under supervision	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management, and regulatory systems of health and medical care	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor

Specialities in internal medicine

Internal medicine

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Introduction

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In each description of objectives, there is a section headed 'Training structure' which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the current area

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competence

Definition of area of competence

Internal medicine is a base specialty for the branch specialties of cardiology, gastroenterology and hepatology, endocrinology and diabetology, renal medicine (nephrology), respiratory medicine, haematology, and allergology.

The area of internal medicine comprises a general competence that can be practised independently, at the same time as it is a common platform for the branch specialties as well as knowledge and a skills base for emergency operations within the entire field of internal medicine. The focus of the specialty is on system illnesses and illnesses of the internal organs – medical conditions that are most often treated with non-invasive or minimally invasive methods, primarily medicine. Characteristic of the specialty is that diagnostics are to a great extent based on analyses of case histories and physical examinations supported by radiology, clinical physiology, and endoscopic and the clinical and chemical results of investigation. Patient groups cover all ages starting in the late teens, but with the emphasis on older patients.

Competence requirements

Competence requirements for medical competence

Specialist competence in internal medicine requires mastering the knowledge and skills base common to all specialties within internal medicine. Being able to handle acute illnesses within internal medicine and the acute medical conditions related to internal medicine are included in this general base. Additionally, specialists should be able to handle the most common and frequently occurring illnesses and medical conditions within internal medicine, as well as the most common and frequently occurring conditions within all branch specialties and adjacent base specialties. They should also master invasive and non-invasive measures and methods relevant to the internal medicine area of competence (intermediate objectives 1–3).

Furthermore, specialist competence in internal medicine requires knowledge and skills to be further deepened. This means broad knowledge within the entire area of competence of internal medicine, as well as practical skill in common investigation and treatment methods. Deepened knowledge is also required concerning pharmaceutical treatment, especially as regards the factors specific to the patient being treated. This also means that even deeper competence in handling the most common and frequently occurring illnesses within the branch specialties and adjacent base specialties is required, not only initially but over the long term, as well as being able to evaluate when the patient should be referred to another speciality. Addition-

ally, competence in being able to handle internal medical problems that arise in the border areas between internal medicine and psychiatry is required.

Deeper internal medical competence should be such that it is possible to apply an approach with a comprehensive view as regards the patient's entire health and illness situation. Additionally, the specialist competence requires knowledge of the principles of catastrophe medicine during serious events, especially events that concern the area of competence directly. Knowledge of laws and regulations, as well as of their application within the area of competence is required, as is being capable of handling the patient in co-operation with other partners, both other health care providers and the authorities.

Competence requirements for communicative competence, leadership competence and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competences. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and an understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, financial and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

During an introductory period, emphasis should be laid on service with the goal of providing a good competence base for emergency operations within internal medicine. During this time, a course in emergency internal medicine should be worked into the schedule. The clinical service should involve placement in units where such emergency health care is practised. Cohesive periods within all the areas of operation should be sought after while clinical service is ongoing. Early on in training, the service should take place in a unit that handles widespread diseases such as heart disease, stroke, diabetes, and obstructive lung disease. The relevant courses should also be planned in keeping with the clinical service.

During the latter half of specialist medical training, more interests should be accommodated in the planning: on the one hand, a broadening of competence within the areas of the branch specialties and adjacent base specialties; on the other, a deepening in the elective operations. The contents of the service in other operations within the field of internal medicine should be planned so that good knowledge of the essential parts within the branch specialties, including outpatient care, is attained. Simultaneous additional training in another operation can supplement this. In such a case the service should be arranged so that it contains the relevant knowledge for internal medicine and increases capability. Examples of such simultaneous additional training for internal medicine are intensive care, rheumatology, infections disease care, geriatrics, neurology, emergency psychiatry, radiology, clinical chemistry, clinical physiology, and general medicine. Courses should also be planned in keeping with the service during this period.

Internal medicine can be supplemented with ongoing specialist medical training within a branch specialty, or additional specialty, or be combined with another adjacent base specialty, primarily rheumatology, geriatrics, neurology, and infectious medicine. Coordination of service within the fields relevant to both internal medicine and the intended ongoing specialist medical training can take place during the latter part of specialist medical training in internal medicine.

Internal medicine can also constitute a general competence that can be practised independently. The latter part of specialist medical training can then be arranged for deepening within the area of competence that is relevant to broad internal medicine operations.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To be able to handle acute illnesses within internal medicine and the acute medical conditions related to internal medicine	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Theoretical studies	

Intermediate objective 2	Teaching methods	Follow-up
To be able to initially handle the most common and frequently occurring illnesses and medical conditions within internal medicine, as well as the most common and frequently occurring conditions within the branch specialties and adjacent base specialties	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To master invasive and non-invasive measures and methods relevant to the internal medicine area of competence	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To be able to handle the most common and frequently occurring illnesses among the branch specialties of internal medicine, especially in the first few days	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To be able to handle the most common and frequently occurring illnesses within the adjacent base specialties, especially in the first few days	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To be able to evaluate when a patient should be referred to a branch specialist or other specialist	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To have an understanding of medicines, as well as their indications and effects, especially regarding the factors specific to an individual	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course or seminar or large professional assembly	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To be able to handle somatic internal medicine problems in patients with psychiatric illnesses and addictions, as well as to be able to handle psychosomatic conditions with internal medical symptoms	Clinical service under supervision in a unit that manages these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Seminar	
	Sitting-in	

Intermediate objective 9	Teaching methods	Follow-up
To have the knowledge to be able to construct a comprehensive view of the patient, especially in the presence of multiple diagnoses and problems	Clinical service under supervision in a unit that manages these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Seminar	
	Sitting-in	

Intermediate objective 10	Teaching methods	Follow-up
To have an understanding of the working principles of catastrophe medicine during medical catastrophes	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	

Intermediate objective 11	Teaching methods	Follow-up
To have an understanding of the regulations for the exercise of public authority that are relevant to the area of competence, and their application	Clinical service under supervision in a unit that handles these issues	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To be able to handle the patient in cooperation with other health care providers as well as other partners concerned	Clinical service under supervision in a unit that handles these issues	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin	Clinical service under supervision in a unit where such operations are practised	Certificate of approved clinical service and competence achieved, issued by current mentor
	Course or seminar	Certificate of successfully completed course, issued by course leader
	Sitting-in	

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Health care teamwork under supervision	

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Instruction under supervision	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Health care teamwork under supervision	

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management and regulatory systems of health and medical care	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Course	Certificate of successfully completed course, issued by course leader
	Written individual work under supervision according to scientific principles	Certificate of approved written individual work issued by current mentor
	Theoretical studies	

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Course	Certificate of successfully completed course, issued by course leader
	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor
	Theoretical studies	

Cardiology

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Introduction

On June 24, 2008, The National Board of Health and Welfare (Socialstyrelsen) decided to issue new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists of a general part with common provisions for all specialties and a specific part with all the descriptions of objectives. The description of objectives for the respective specialties should be understood against the background of the provisions in the general part.

In each description of objectives, there is a section headed 'Training structure' which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the current area

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competence

Definition of area of competence

The specialty of cardiology covers knowledge and skills in the prevention, investigation, diagnostics, treatment, and follow-up of diseases of the heart, the central vessels, and pulmonary circulation. The area of competence covers both acute and chronic medical conditions, and the patients come from age groups ranging from the upper teens, with a majority in middle age or older. Diagnostics is based on an analysis of the case history, a physical examination, and the results of clinical and chemical investigations, as well as various non-invasive and invasive radiology diagnostics methods. The opportunities for treatment are made up of pharmacological as well as non-invasive and invasive methods.

Cardiology operations are located in clinics, care units, and intensive care units, as well as intervention labs, and collaborate closely with fields of knowledge such as radiology, thoracic surgery, paediatric cardiology, anaesthesiology, internal medicine, infections medicine, and general medicine, as well as geriatrics.

Cardiology is a branch specialty of the internal medicine base specialty.

Competence requirements

Competence requirements for medical competence

Specialist competence in cardiology requires knowledge of the anatomy and physiology of the heart and central vessels, as well as the epidemiology, etiology, and pathology of heart diseases, as well as their interaction with the illness panorama of the other organ systems.

Heart disease includes coronary disease, heart failure, arrhythmia, valve disease, pulmonary hypertension, thoracic aortic disease, and heart disease during pregnancy, as well as inflammatory, infectious, and congenital heart disease. Specialist competence in cardiology requires knowledge in investigation, diagnostics, treatment and follow-up, as well as primary and secondary prevention, of heart disease. Additionally, knowledge and practical skills are required in the existing

diagnostics and therapeutic methods of the specialty, involving indication and performance, risks of complications, and interpretation of examination results. Attaining the necessary knowledge and skills is required for specialist competence in cardiology in order to be able to independently practice broad competence in cardiology. This includes independently being able to lead an emergency cardiology clinic. Specialist competence in cardiology further requires mastering the knowledge and skills base common to all internal medicine specialties. Being able to handle acute illnesses within internal medicine and the acute medical conditions related to internal medi-

cine are included in this general base. Additionally, specialists should be able to handle the most common and frequently occurring illnesses and medical conditions within internal medicine, as well as the most common and frequently occurring conditions within all branch specialties and adjacent base specialties. They should also master invasive and non-invasive measures and methods relevant to the internal medicine area of competence (intermediate objectives 1–3).

Competence requirements for communicative competence, leadership competence and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for patients' involvement in, and responsibility for, their own care.

Multicultural aspects

Communication with patients and their next of kin must be characterised by understanding of and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competences. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and an understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, financial and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

Specialist medical training in cardiology can begin before, during, or after specialist medical training in internal medicine and can be integrated with it.

The main part of the training should be planned after the common internal medicine base training has been completed. Training in cardiology should be initiated with rotating placement in a cardiology care unit, cardiology intensive care unit and heart clinic so that ST doctors get a broad, introductory clinical basis within the area of competence. Cohesive placement periods should be sought after during the entire specialist medical training in cardiology.

It is important that ST doctors be placed in a radiology, diagnostics, or clinical unit for an adequate period of time early on in their training in order to achieve independent skills in performing echocardiographic examinations, as well as in order to begin training in interpreting examination results for the diagnostic methods that are otherwise common within cardiology.

Specialist training should thereafter involve service in the following units: cardiology intensive care unit or corresponding unit that performs primary percutaneous coronary intervention (PCI), a heart failure unit, and an arrhythmia and pacemaker unit, including placement in a unit for invasive electrophysiology. A part of the service should thus be located in a hospital with highly specialised cardiology.

ST doctors should, continually throughout their training, be given the opportunity to train in invasive diagnostic procedures and monitoring, as well as to actively participate in invasive therapeutic interventions. Clinical service in cardiology should take place to such an extent that the prepared specialist can independently handle patients with heart disease. Simultaneous additional training should be individualised and can include service within paediatric cardiology, thoracic radiology, thoracic surgery, and in a cardiac intervention laboratory, as well as in intensive care.

ST doctors should be involved in emergency cardiology duty early on in cardiology training, with their own primary responsibilities for a cardiology intensive care unit, but not so that the emergency duty service predominates over the general clinical service time.

ST doctors should additionally be given the opportunity for their own study of the relevant literature within the area of competence throughout their entire training. Furthermore, ST doctors should be given the opportunity to take part in the relevant courses and training. ST doctors should specifically take part in courses that discuss ischemic heart disease, heart failure, arrhythmia, valve disease, haemodynamics and monitoring, and echocardiography as well as congenital heart defects.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To be able to handle acute illnesses within internal medicine and the acute medical conditions related to internal medicine	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Theoretical studies	

Intermediate objective 2	Teaching methods	Follow-up
To be able to initially handle the most common and frequently occurring illnesses and medical conditions within internal medicine, as well as the most common and frequently occurring conditions within the branch specialties and adjacent base specialties	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To master invasive and non-invasive measures and methods relevant to the internal medicine area of competence	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To master taking charge of life-threatening cardiological conditions in an emergency	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To master diagnostics and handling of acute coronary syndrome and chronic ischemic heart disease	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To master diagnostics and handling of acute and chronic heart failure, as well as heart valve diseases	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
To be able to handle pulmonary hypertension	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To master acute cardiac arrhythmia	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
To be able to handle other arrhythmia and syncope	Course	Certificate of successfully completed course, issued by course leader
To have knowledge of electrophysiological investigation and treatment methods	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To be able to handle inflammatory and infectious cardiac conditions To be able to handle cardiac cancer	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To be able to initially handle acute conditions in congenital cardiac malformations in adults To have an understanding of congenital cardiac malformations in adults To be able to handle heart diseases associated with pregnancy To have an understanding of initial handling of hereditary heart disease	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To be able to handle aortic disease and traumatic heart disease up to and including any surgical measures	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To master primary and secondary preventive cardiovascular risk factors	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
To master methods of cardiological rehabilitation	Course	Certificate of successfully completed course, issued by course leader
To have an understanding of the arteriosclerotic process	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To have an understanding of the various non-invasive and invasive investigative methods within the area of competence, as well as to have an understanding of their use in investigating cardiological conditions	Clinical service under supervision in a unit that handles these conditions	
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin	Clinical service under supervision in a unit where such operations are practised	Certificate of approved clinical service and competence achieved, issued by current mentor
	Course or seminar	Certificate of successfully completed course, issued by course leader
	Sitting-in	

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Health care teamwork under supervision	

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Instruction under supervision	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Health care teamwork under supervision	

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management and regulatory systems of health and medical care	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Competence within medical science and quality work

Intermediate objective 19	**Teaching methods**	**Follow-up**
To be capable of a medically scientific outlook and approach	Course	Certificate of successfully completed course, issued by course leader
	Written individual work under supervision according to scientific principles	Certificate of approved written individual work issued by current mentor
	Theoretical studies	

Intermediate objective 20	**Teaching methods**	**Follow-up**
To have an understanding of, and competence in, evidence-based improvement and quality work	Course	Certificate of successfully completed course, issued by course leader
	Quality and development work under supervision	Certificate of quality and development work issued by current mentor

Gastroenterology and hepatology

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Introduction

On June 24, 2008, The National Board of Health and Welfare (Socialstyrelsen) decided to issue new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists of a general part with common provisions for all specialties and a specific part with all the descriptions of objectives. The description of objectives for the respective specialties should be understood against the background of the provisions in the general part.

In each description of objectives, there is a section headed 'Training structure' which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the current area

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competence

Definition of area of competence

The specialty of gastroenterology and hepatology covers knowledge and practical skill in investigating, diagnosing, treating and following up on patients with illnesses of the stomach and intestinal canal, the liver, the biliary tract, and the pancreas. The most common and frequently occurring conditions are inflammatory bowel diseases, hepatological diseases, ulcers and reflux disease, malabsorption, and functional and motility disorders, as well as cancer in the stomach and intestinal canal, the liver, and the pancreas.

Endoscopic operations that comprise both diagnostic and advanced therapeutic skills form an important part of gastroenterology. Another important part is investigating and treating secondary nutritional disorders in parallel with taking medical charge of the gastroenterological or hepatological illness.

Gastroenterology and hepatology is a branch specialty of the internal medicine base specialty. An internal medicine approach lies at the foundation, but operations are practised in close cooperation with gastroenterological surgery, radiology, infectious diseases, oncology, transplant surgery, and psychiatry.

Competence requirements

Competence requirements for medical competence

Specialist competence in gastroenterology and hepatology requires broad theoretical and practical knowledge within the entire field of gastroenterology and hepatology, which forms the basis for being able to independently diagnose and treat illnesses.

Specialist competence also requires mastering treatment of motility disorders, acute and chronic inflammatory bowel diseases, acute liver failure, and cirrhosis and its complications, as well as autoimmune, metabolic, infectious, toxic, and hereditary gastroenterological illnesses. Furthermore, handling of ulcers and gastroesophageal reflux disease, digestion and malabsorption disorders must be mastered, as well as investigation and treatment of illness-related nutritional disorders.

Knowledge of radiology, as well as nuclear medicine, pathology, and laboratory medicine, is also required. Additionally, endoscopic diagnostics and basic therapeutic intervention via endoscopy must be mastered. Specialists should also have an understanding of the treatment of gastroenterological and hepatological illnesses from a surgical perspective in order to jointly handle patients, in suitable cases – and in the right situations, refer them for surgical therapy, which can also include liver transplant. Multidisciplinary cases are to be handled through regular cooperation with the adjacent spe-

cialties of oncology, infection, and psychiatry. This assumes knowledge of the different treatment possibilities in these specialties.

Specialist competence in gastroenterology and hepatology further requires mastering the knowledge and skills base common to all internal medicine specialties. Being able to handle acute illnesses within internal medicine and the acute medical conditions related to internal medicine are included in this general base. Additionally, specialists should be able to handle the most common and frequently occurring illnesses and medical conditions within internal medicine, as well as the most common and frequently occurring conditions within all branch specialties and adjacent base specialties. They should also master invasive and non-invasive measures and methods relevant to the internal medicine area of competence (intermediate objectives 1–3).

Competence requirements for communicative competence, leadership competence and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competences. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and an understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, financial and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous

systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

Specialist medical training in gastroenterology and hepatology can begin before, during, or after specialist medical training in internal medicine and can be integrated with it.

At the beginning of specialist medical training, it is desirable to acquire a base knowledge of gastroenterology, with an emphasis on taking care of the sickest patients, and acquiring theoretical knowledge, as well as practical training in gastroscopy and practise in simpler procedures at the end of the introductory period.

Thereafter more immersive education in gastroscopy and coloscopy, more immersive studies in the literature, and own work in outpatient care under supervision follows, as well as increased responsibility and increased independence in handling patients. More advanced procedures, such as liver biopsy and basic endoscopic intervention, can be practised during this time.

During the third part of the training, ST doctors should deepen their competence within an elective part of the operations, for example hepatology, inflammatory bowel disease, or endoscopy. Independent work on rounds, as well as investigation and treatment of complicated outpatient cases, should be practised during this time.

Quality development projects should be carried out, and scientific work encouraged. ST doctors should take gradually increased responsibility for instruction, administration, and cooperation with other specialties – the latter through clinical service, multidisciplinary treatment conferences, or auscultation. Participation in conferences should be spread evenly throughout the training period. Participation in seminars and diagnostics and treatment conferences should be introduced early on in training and be included on a continuous basis, as communication with adjacent specialties is important within the specialty.

The service should be distributed between larger and smaller units so that ST doctors can become acquainted with the various illness panoramas within the field, which can vary depending on the size of the unit. Knowledge of less common conditions can be broadened and deepened through service at larger units.

Simultaneous additional training should be carried out in different areas of operations, preferably at hospitals that perform liver transplant operations, so that ST doctors' experience and approaches can be broadened. Another valuable type of simultaneous additional training is service at a gastro-

surgical unit, or a unit where operations in oncology, infection, or psychiatry are practised.

ST doctors should be given the opportunity for independent study and to follow the relevant literature within the area of competence.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To be able to handle acute illnesses within internal medicine and the acute medical conditions related to internal medicine	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Theoretical studies	

Intermediate objective 2	Teaching methods	Follow-up
To be able to initially handle the most common and frequently occurring illnesses and medical conditions within internal medicine, as well as the most common and frequently occurring conditions within the branch specialties and adjacent base specialties	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To master invasive and non-invasive measures and methods relevant to the internal medicine area of competence	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To master diagnostics, treatment, and follow-up of inflammatory bowel disease, both emergency and long-term	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To master investigation of abnormal liver tests and, where applicable, treatment of the illnesses behind them, to master diagnostics, treatment, and follow-up of cirrhosis of the liver, and to be able to handle diagnostics and treatment of acute liver failure	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To master the relevant endoscopic investigation techniques, evaluation and treatment of findings made, and to master basic intervention treatments and to have an understanding of advanced therapeutic intervention	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To master diagnostics and treatment of ulcers, gastritis, and gastroesophageal reflux disease	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To master diagnostics and treatment of functional stomach and intestinal disorders and motility disorders	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To master diagnostics and treatment of disorders in digestion and absorption	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To master diagnostics of tumour illnesses in the stomach and intestinal canal, liver, and pancreas, and to have knowledge of the various treatment alternatives for the illness	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To master diagnostics and treatment of nutritional disorders as a consequence of a gastroenterological or hepatological disease	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Health care team work under supervision	
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To have an understanding of other diagnostic methods in gastroenterological and hepatological investigations	Diagnostics and treatment conference	
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin	Clinical service under supervision in a unit where such operations are practised	Certificate of approved clinical service and competence achieved, issued by current mentor
	Course or seminar	Certificate of successfully completed course, issued by course leader
	Sitting-in	

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Health care teamwork under supervision	

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Instruction under supervision	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised Course Health care teamwork under supervision	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
		Certificate of successfully completed course, issued by course leader

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management and regulatory systems of health and medical care	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Course	Certificate of successfully completed course, issued by course leader
	Written individual work under supervision according to scientific principles	Certificate of approved written individual work issued by current mentor
	Theoretical studies	

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Course	Certificate of successfully completed course, issued by course leader
	Quality and development work under supervision	Certificate of quality and development work issued by current mentor
	Theoretical studies	

Endocrinology and diabetology

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Introduction

On June 24, 2008, The National Board of Health and Welfare (Socialstyrelsen) decided to issue new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists of a general part with common provisions for all specialties and a specific part with all the descriptions of objectives. The description of objectives for the respective specialties should be understood against the background of the provisions in the general part.

In each description of objectives, there is a section headed 'Training structure' which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the current area

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competence

Definition of area of competence

The specialty of endocrinology and diabetology covers the normal functions of the endocrine system and its medical conditions. The specialty includes the investigation, diagnostics, treatment, and follow-up of medical conditions in the endocrine system. This means everything from widespread diseases like Diabetes Type 1 and 2, thyroid diseases, obesity, blood lipid disorders, and osteoporosis to more uncommon endocrine disorders. Knowledge of the hormonal mechanisms that are significant for normal fertility, pregnancy, the development of the body, growth in height, puberty, and menopause is also involved. The area of competence is distinguished by close cooperation with surgical operations intended for treatment, as well as work on a multifocal professional team.

Endocrinology and diabetology is a branch specialty of the internal medicine base specialty.

Competence requirements

Competence requirements for medical competence

Specialist competence in endocrinology and diabetology requires the knowledge and skills necessary to independently be able to practise the specialty. The competence requirements comprise charting patient histories and analysis in combination with radiology investigations, chemical analyses of hormonal level, both in basic situations and dynamically under so-called loads, as well as handling of patients with hormonal substitution treatment and treatment with analogous hormones.

Specialist competence further requires knowledge of acute endocrinology, as well as treatment and follow-up of chronic endocrine illnesses, reactions of a psychological character in acute and chronic stages, and the prevention and management of somatic complications. Knowledge of handling endocrine tumour illnesses with concomitant disorders is also required.

Furthermore, competence in differential diagnostic consideration of uncommon medical conditions is required. These illnesses often have a multifaceted symptom picture, which is why diagnostics for ruling out or confirming hormonal disorders is a very important element. The ability to cooperate with surgical operations on a multiprofessional team is required, especially regarding patients with diabetes or thyroid illnesses.

Specialist competence in endocrinology and diabetology further requires mastering the knowledge and skills base common to all internal medicine specialties. Being able to handle acute illnesses within internal medicine and

the acute medical conditions related to internal medicine are included in this general base. Additionally, specialists should be able to handle the most common and frequently occurring illnesses and medical conditions within internal medicine, as well as the most common and frequently occurring conditions within all branch specialties and adjacent base specialties. They should also master invasive and non-invasive measures and methods relevant to the internal medicine area of competence (intermediate objectives 1–3).

Competence requirements for communicative competence, leadership competence and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competences. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and an understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, financial and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to participate in and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to critically review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

Specialist medical training in endocrinology and diabetology can begin before, during, or after specialist medical training in internal medicine and can be integrated with it. During the introductory period, service in endocrinology and diabetology should be aimed at providing a good basis for the consultative operations of the branch specialty. ST doctors should take courses aimed at initial investigation and treatment during this time. Clinical service should take place in wards and clinics where diabetology and endocrinology care is practised.

It is desirable that the service take place in cohesive periods. During the first part of training, ST doctors should serve in operations that handle widespread diseases within the specialty. Theoretical courses should be planned in keeping with the clinical service. During the latter part of the specialist medical training, ST doctors should immerse themselves in uncommon medical conditions within endocrinology and diabetology. It is suitable for ST doctors, where applicable, to be given the opportunity to deepen their competences in endocrinology and diabetology at a university hospital or similar unit.

ST doctors should actively participate in seminars and account for case reports during training. ST doctors should also have the opportunity for independent study of medical journals and literature. Furthermore, ST doctors should have the opportunity to participate in the ordinary in-job training of the clinic and should be able to participate in the follow-up of local and national care programmes.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To be able to handle acute illnesses within internal medicine and the acute medical conditions related to internal medicine	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Theoretical studies	

Intermediate objective 2	Teaching methods	Follow-up
To be able to initially handle the most common and frequently occurring illnesses and medical conditions within internal medicine, as well as the most common and frequently occurring conditions within the branch specialties and adjacent base specialties	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To master invasive and non-invasive measures and methods relevant to the internal medicine area of competence	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To master handling of common endocrine conditions, including investigation, diagnostics, therapy, and follow-up, as well as to be able to evaluate individual patients' need for referral to another specialty	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Health care team work under supervision	

Intermediate objective 5	Teaching methods	Follow-up
To master investigation, diagnostics, therapy, and follow-up of uncommon endocrine medical conditions, as well as to be able to evaluate the individual need for referral of these patients	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service, issued by current mentor
	Course or seminar	Certificate of successfully completed course, issued by course leader
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To be able to handle endocrine illnesses with complications	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service, issued by current mentor
	Auscultation under supervision at a unit that handles these conditions	Certificate of successfully completed course, issued by course leader
	Course	
	Diagnostics and treatment conference	

Intermediate objective 7	Teaching methods	Follow-up
To be able to handle individual patient in relation to the laws and ordinances that regulate the exercise of authority within the area of competence	Clinical service under supervision in a unit that handles these issues	Certificate of successfully completed clinical service, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To be able to handle endocrine medical conditions in connection with intensive care and parenteral nutrition, both pre- and postoperatively	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To be able to initially handle the endocrinology of puberty, the endocrinology of pregnancy, male and female infertility, and sexual function and transsexualism, as well as being able to evaluate the needs of individual patients for referral to another specialty	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service, issued by current mentor
	Seminar	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To master cooperation with other health care providers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service, issued by current mentor
	Health care teamwork under supervision	
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To have knowledge of hereditary, congenital, and genetic medical conditions	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To have knowledge of the impact of environmental factors on the emergence of endocrine medical conditions	Training in a simulated environment	
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin	Clinical service under supervision in a unit where such operations are practised	Certificate of approved clinical service and competence achieved, issued by current mentor
	Course or seminar	Certificate of successfully completed course, issued by course leader
	Sitting-in	

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Health care teamwork under supervision	

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Instruction under supervision	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Health care teamwork under supervision	

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management and regulatory systems of health and medical care	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Course	Certificate of successfully completed course, issued by course leader
	Written individual work under supervision according to scientific principles	Certificate of approved written individual work issued by current mentor
	Theoretical studies	

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Course	Certificate of successfully completed course, issued by course leader
	Quality and development work under supervision	Certificate of quality and development work issued by current mentor
	Theoretical studies	

Renal medicine (nephrology)

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Introduction

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In each description of objectives, there is a section headed 'Training structure' which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the current area

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competence

Definition of area of competence

Renal medicine, or nephrology, is a specialty that comprises the investigation, diagnostics, treatment, and follow-up of patients with acute and chronic renal illnesses, hypertension, electrolyte disorders, and other complications from these.

An important part of the operation is long-term follow-up and treatment of patients with chronic renal illnesses of different types, and with varying degrees of renal impairment. The responsibility for dialysis treatment, as well as follow-up and supervision of dialysis patients, is a fundamental part of the specialty, as are investigation prior to kidney transplants and follow-up of kidney transplant patients.

The specialty also comprises taking care of patients with acute renal failure, and acute inflammatory kidney diseases that require immunomodulatory treatment, acute dialysis, or other extracorporeal treatment.

The composite clinical profile of a kidney patient, often with other complicating diseases, implies a need for close cooperation with many other operations such as internal medicine, cardiology, endocrinology, clinical pathology, clinical chemistry, vascular surgery, urology, and transplant surgery.

Renal medicine is a branch specialty of the internal medicine base specialty.

Competence requirements

Competence requirements for medical competence

Specialist competence in renal medicine requires the knowledge and skills necessary to independently be able to practise broad competence in renal medicine. The medical competence involves etiology, pathology, and diagnostics, as well as treatment and follow-up of patients with primary medical renal illness and with renal illness that is secondary to system illnesses, both acute and chronic; hypertension, and electrolyte and acid-base disorders, as well as other complications from these conditions.

Being responsible for various forms of dialysis treatment in chronic renal failure is required, as is being responsible for treatment of patients with acute renal failure, acute inflammatory kidney diseases including immunomodulatory treatment, emergency dialysis or other extracorporeal treatment, as well as both investigation prior to kidney transplant and follow-up of kidney transplant patients.

Furthermore, specialist competence in renal medicine requires mastering the knowledge and skills base common to all internal medicine specialties. Being able to handle acute illnesses within internal medicine and the acute medical conditions related to internal medicine are included in this general base. Additionally, specialists should be able to handle the most common and frequently occurring illnesses and medical conditions within internal medicine, as well as the most common and frequently occurring conditions within all branch specialties and adjacent base specialties. They should also master invasive and non-invasive measures and methods relevant to the internal medicine area of competence (intermediate objectives 1–3).

Competence requirements for communicative competence, leadership competence and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competences. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and an understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, financial and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous

systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

Specialist medical training in renal medicine can begin before, during, or after specialist medical training in internal medicine and can be integrated with it.

The training structure will often differ between large and small renal medicine units, depending on the different structures of the operations.

Clinical service should involve placement in units where the relevant renal medicine care is practised, including follow-up of kidney transplant patients. It should also involve service in both a haemodialysis unit and a peritoneal dialysis clinic. Additionally, it is of great importance that ST doctors, early on in their training, should be allowed to handle renal medicine patients that reflect a broad renal medicine illness panorama. It is also important that ST doctors are given the opportunity to continuously follow up on renal medicine patients. ST doctors should begin their training in various types of dialysis treatment and follow-up of dialysis patients early on.

Simultaneous additional training is individualised based on ST doctors' prior experiences and should involve service within transplant surgery. Other suitable areas of service are infectious medicine and rheumatology.

In specialist training at smaller hospitals, part of the specialist medical training should be located at a regional or university hospital, and preferably at the end of specialist medical training.

Throughout the entire specialist medical training, it is suitable for ST doctors to participate in theoretical training in the form of courses and other education. ST doctors should also be given the opportunity for independent study and to follow the relevant literature within the renal medicine area of competence.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To be able to handle acute illnesses within internal medicine and the acute medical conditions related to internal medicine	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Theoretical studies	

Intermediate objective 2	Teaching methods	Follow-up
To be able to initially handle the most common and frequently occurring illnesses and medical conditions within internal medicine, as well as the most common and frequently occurring conditions within the branch specialties and adjacent base specialties	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To master invasive and non-invasive measures and methods relevant to the internal medicine area of competence	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To master investigation, diagnostics, treatment, and follow-up of primary renal illnesses, and system illnesses with renal involvement	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To master investigation, diagnostics, treatment, and follow-up of acute renal failure	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To master investigation, diagnostics, treatment, and follow-up of chronic renal failure	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To master peritoneal dialysis treatment	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To master haemodialysis treatment	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To be able to handle investigations prior to kidney transplants and the medical follow-up of these patients	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To master investigation, diagnostics, treatment, and follow-up of patients with hypertension	Clinical service under supervision in a unit that handles this condition	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To have knowledge of normal kidney physiology and electrolyte and acid-base balance, and to be able to handle patients with disorders in these functions, as well as to master investigation, diagnostics, treatment, and follow-up of patients with early signs of renal illness	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To be able to handle ethical questions in connection with kidney transplants, as with life-support treatment and termination thereof	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of maintaining dialogue and open contact with patients and their next of kin	Clinical service under supervision in a unit where such operations are practised	Certificate of approved clinical service and competence achieved, issued by current mentor
	Course or seminar	Certificate of successfully completed course, issued by course leader
	Sitting-in	

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Health care teamwork under supervision	

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Instruction under supervision	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Health care teamwork under supervision	

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management and regulatory systems of health and medical care	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Course	Certificate of successfully completed course, issued by course leader
	Written individual work under supervision according to scientific principles	Certificate of approved written individual work issued by current mentor
	Theoretical studies	

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Course	Certificate of successfully completed course, issued by course leader
	Quality and development work under supervision	Certificate of quality and development work issued by current mentor
	Theoretical studies	

Respiratory medicine

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Introduction

On June 24, 2008, The National Board of Health and Welfare (Socialstyrelsen) decided to issue new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists of a general part with common provisions for all specialties and a specific part with all the descriptions of objectives. The description of objectives for the respective specialties should be understood against the background of the provisions in the general part.

In each description of objectives, there is a section headed 'Training structure' which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the current area

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competence

Definition of area of competence

The specialty of respiratory medicine is a branch specialty of the internal medicine base specialty and comprises illnesses of the respiratory organs, which include illnesses involving the lower respiratory tract and the lungs, the blood vessels of the lungs, the pleura, the mediastinum, the chest wall, and the diaphragm, as well as respiration and its regulation. Diagnostics are based on an analysis of case history, physical examination, and clinical chemical and microbiological analyses, as well as invasive and non-invasive examination methods. Knowledge of the etiology and pathology of lung diseases, endoscopic examination techniques, and radiology, as well as the physiology of respiration and circulation, are required for this. Potential treatment methods include pharmacological, as well as invasive and non-invasive, methods. The area of competence covers both acute and chronic medical conditions, and also aspects of public health as well as prevention.

Competence requirements

Competence requirements for medical competence

Specialist competence in respiratory medicine requires the knowledge and skills necessary to independently be able to practise competence in respiratory medicine. It requires knowledge of the etiology and pathology of lung disease, as well as competence in diagnostics, treatment, and follow-up of chronic obstructive lung disease (COLD), asthma, and other illnesses of the lower respiratory tract, respiratory allergy, acute and chronic respiratory failure, illnesses concerning respiration and its regulation, tumour illnesses in the thorax and tumour-related complications, illnesses in the chest wall and diaphragm, illnesses in the mediastinum, pleural illnesses, interstitial lung diseases, lung and respiratory tract-related infectious diseases, illnesses in the pulmonary blood vessels, hereditary and deformity-related lung diseases, and palliative medicine, as well as occupational and environmental lung diseases. Mastering endoscopic examination techniques and invasive measures and methods is required, as well as having knowledge of the radiology necessary for the area of competence. Additionally, knowledge of the interaction of lung diseases with other organ systems and pleuropulmonary manifestations of other organ diseases is required, as well as knowledge of preventing tobacco use and quitting smoking.

Specialist competence in respiratory medicine further requires mastering the knowledge and skills base common to all internal medicine specialties. Being able to handle acute illnesses within internal medicine and the acute medical conditions related to internal medicine are included in this general base. Additionally, specialists should be able to handle the most common

and frequently occurring illnesses and medical conditions within internal medicine, as well as the most common and frequently occurring conditions within all branch specialties and adjacent base specialties. They should also master invasive and non-invasive measures and methods relevant to the internal medicine area of competence (intermediate objectives 1–3).

Competence requirements for communicative competence, leadership competence and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competences. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addi-

tion to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and an understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, financial and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for

promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

Specialist medical training in respiratory medicine can begin before, during, or after specialist medical training in internal medicine and can be integrated with it.

The main part of the clinical service should take place in wards and clinics where care in respiratory medicine is practised. Early on in their training and under supervision, ST doctors should be allowed to handle patients reflecting a broad illness panorama within respiratory medicine. Equally early on, ST doctors should begin their training in endoscopic examination techniques and invasive measures and methods, in order to be able to practise these elements independently at the end of their specialist medical training. Simultaneous additional training should be individualised based on ST doctors' prior experiences and should involve service within radiology, allergology, and intensive care. Other suitable areas of service are oncology, infectious medicine, thoracic surgery, and rheumatology. Part of the training should be located at a university hospital, and preferably at the end of specialist medical training. Relevant courses should be integrated throughout the entire specialist medical training.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	**Teaching methods**	**Follow-up**
To be able to handle acute illnesses within internal medicine and the acute medical conditions related to internal medicine	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Theoretical studies	

Intermediate objective 2	**Teaching methods**	**Follow-up**
To be able to initially handle the most common and frequently occurring illnesses and medical conditions within internal medicine, as well as the most common and frequently occurring conditions within the branch specialties and adjacent base specialties	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To master invasive and non-invasive measures and methods relevant to the internal medicine area of competence	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 4	**Teaching methods**	**Follow-up**
To master COLD and asthma, as well as to be able to handle other illnesses in the lower respiratory tract as well as respiratory tract allergies	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 5	**Teaching methods**	**Follow-up**
To master acute and chronic respiratory failure and hypoventilation, as well as to be able to handle obstructive sleep apnoea syndrome	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To be able to handle tumour illnesses in the lungs and lung tumour-related medical conditions, as well as to be able to handle tumour illnesses in the mediastinum, the chest wall, and the pleura	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To master spontaneous pneumothorax, as well as to be able to handle other illnesses in the pleura, the chest wall, the diaphragm, and the mediastinum	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To be able to handle interstitial lung diseases	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To master infection-related lung and respiratory tract illnesses under normal immune defence, and to be able to handle these medical conditions under impaired immune defence, as well as to be able to handle hereditary and deformity-related lung diseases and tuberculosis	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To be able to handle illnesses involving the pulmonary blood vessels, as well as to have an understanding of the interaction of lung diseases with other organ systems and of pleuropulmonary manifestations of other organ illnesses	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To be able to handle occupational and environmental lung diseases in the lower respiratory tract, as well as to have knowledge of the laws and ordinances that relate to occupational lung diseases	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To master endoscopic examination techniques and invasive measures and methods, as well as to have an understanding of radiology diagnostics methods that are relevant to the respiratory medicine area of competence	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin	Clinical service under supervision in a unit where such operations are practised	Certificate of approved clinical service and competence achieved, issued by current mentor
	Course or seminar	Certificate of successfully completed course, issued by course leader
	Sitting-in	

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Health care teamwork under supervision	

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Instruction under supervision	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Health care teamwork under supervision	

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management and regulatory systems of health and medical care	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Course	Certificate of successfully completed course, issued by course leader
	Written individual work under supervision according to scientific principles	Certificate of approved written individual work issued by current mentor
	Theoretical studies	

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Course	Certificate of successfully completed course, issued by course leader
	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor
	Theoretical studies	

Haematology

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Introduction

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In each description of objectives, there is a section headed 'Training structure' which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

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the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the current area

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competence

Definition of area of competence

The specialty of haematology covers knowledge and skills in investigation, diagnostics, treatment, prevention, and follow-up of conditions of the blood and the haematopoietic, lymphatic, and haemostatic systems. Diagnostics are to a great extent based on analyses of case histories and physical examinations, supported by such things as radiology and histopathological and clinical chemical examination results. Patient groups cover all ages, from late teens to the very oldest, and the area reaches from treatment with curative intent, through treatment and follow-up of long-standing, sometimes lifelong, incurable medical conditions, both malignant and benign, to palliation and nursing care in the final stages of life.

Haematology is a branch specialty of the internal medicine base specialty.

Competence requirements

Competence requirements for medical competence

Specialist competence in haematology requires deepened knowledge and skills in investigation, diagnostics, treatment, prevention, and follow-up of conditions of the blood and the haematopoietic, lymphatic, and haemostatic systems. This includes mastering methods of diagnostics and treatment, including antitumour agents and radiation therapy. Mastering investigation, diagnostics, therapy, and follow-up of both non-malignant and malignant haematology, including subsidiary treatment, acute complications, pain relief, and end-of-life care. Specialist competence also requires mastering the basic haemostatic disorders.

Specialist competence in haematology further requires mastering the knowledge and skills base common to all internal medicine specialties. Being able to handle acute illnesses within internal medicine and the acute medical conditions related to internal medicine are included in this general base. Additionally, specialists should be able to initially handle the most common and frequently occurring illnesses and medical conditions within internal medicine, as well as the most common and frequently occurring conditions within all branch specialties and adjacent base specialties. They should also master invasive and non-invasive measures and methods relevant to the internal medicine area of competence (intermediate objectives 1–3).

Competence requirements for communicative competence, leadership competence and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competences. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and an understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, financial and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

Specialist medical training in haematology can begin before, during, or after specialist medical training in internal medicine and can be integrated with it.

An introductory period with cohesive service in the more resource-intensive operations within haematology is desirable. Here, ST doctors are expected to get a comprehensive picture of malignant haematology, as well as complications in its treatment. Independent haematology clinic operations, where – if possible – continuity regarding the individual patient and varied content at the same time are desirable, should be initiated early on in the training. Cohesive service periods are also desirable.

Service within highly specialised haematology, especially transplant haematology, is very important and should, if possible, take place in the later phases of the training. Service in another operation, such as transfusion medicine, haemopathology, and infection, can complement the service within haematology operations.

Theoretical training in the form of courses and other training activities should be integrated with the clinical service and distributed equally throughout the service.

ST doctors should be given the opportunity for independent study and to follow the relevant literature within the area of competence.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To be able to handle acute illnesses within internal medicine and the acute medical conditions related to internal medicine	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Theoretical studies	

Intermediate objective 2	Teaching methods	Follow-up
To be able to initially handle the most common and frequently occurring illnesses and medical conditions within internal medicine, as well as the most common and frequently occurring conditions within the branch specialties and adjacent base specialties	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To master invasive and non-invasive measures and methods relevant to the internal medicine area of competence	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To master investigation, diagnostics, therapy, and follow-up of haematological malignancies including lymphoma, as well as to have knowledge of radiation therapy	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Diagnostics and treatment conference	
	Sitting-in	

Intermediate objective 5	Teaching methods	Follow-up
To master acute complications of haematological illnesses and medical conditions	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 6	Teaching methods	Follow-up
To master subsidiary treatment in connection with haematological illnesses and medical conditions	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 7	Teaching methods	Follow-up
To master non-malignant haematology	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 8	Teaching methods	Follow-up
To master haemostatic disorders	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 9	Teaching methods	Follow-up
To be able to handle patients in palliative and terminal treatment phases	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	

Intermediate objective 10	Teaching methods	Follow-up
To be able to handle allogeneic stem cell transplantation	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Diagnostics and treatment conference	

Intermediate objective 11	Teaching methods	Follow-up
To master operation mechanisms, complications, and the administration of antitumour agents	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 12	Teaching methods	Follow-up
To master haematology examination methods, as well as to have an understanding of haematology laboratory diagnostics	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Diagnostics and treatment conference	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin	Clinical service under supervision in a unit where such operations are practised	Certificate of approved clinical service and competence achieved, issued by current mentor
	Course or seminar	Certificate of successfully completed course, issued by course leader
	Sitting-in	

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Health care teamwork under supervision	

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Instruction under supervision	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Health care teamwork under supervision	

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management and regulatory systems of health and medical care	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Course	Certificate of successfully completed course, issued by course leader
	Written individual work under supervision according to scientific principles	Certificate of approved written individual work issued by current mentor
	Theoretical studies	

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Course	Certificate of successfully completed course, issued by course leader
	Quality and development work under supervision	Certificate of quality and development work issued by current mentor
	Theoretical studies	

Allergology

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Introduction

On June 24, 2008, The National Board of Health and Welfare (Socialstyrelsen) decided to issue new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists of a general part with common provisions for all specialties and a specific part with all the descriptions of objectives. The description of objectives for the respective specialties should be understood against the background of the provisions in the general part.

In each description of objectives, there is a section headed 'Training structure' which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competence

Definition of area of competence

The specialty of allergology covers allergies and other hypersensitivities in various organ systems, chiefly in the upper and lower respiratory tracts, the stomach and intestinal canal, and the skin. Allergic conditions are often systematic, especially in hypersensitivity to foods, medicines, and insect venom. Allergy illnesses include both acute, life-threatening conditions such as anaphylaxis and chronic conditions that can last a lifetime. Many allergic conditions are common among the population and can therefore be designated as widespread diseases.

Diagnostics is based on analysis of case history supported by specific immunological tests and/or based on various types of provocations. Allergy illnesses can be limited or relieved by preventive efforts. Knowledge of prevention and counselling on risks and potential measures are an important part of the knowledge base of the specialty, as is knowledge of pharmacological and immunomodulatory treatment, especially allergy-specific immunotherapy.

The specialty is closely connected to other areas of knowledge such as respiratory medicine, audiology, child and adolescent allergology, clinical immunology, and dermatology.

Allergology is a branch specialty of the internal medicine base specialty.

Competence requirements

Competence requirements for medical competence

Specialist competence in allergology requires good theoretical and practical knowledge in independently investigating and treating allergies and other hypersensitivities in the upper and lower respiratory tracts, asthma and other obstructive lung diseases, asthma-like conditions, hypersensitive reactions involving work or the environment, hypersensitivity to food products and medicines, anaphylactic reactions and other immunological system reactions, and urticaria and angiooedema, as well as primary immunodeficiency diseases with symptoms in the respiratory tract. For diagnostics, the ability to gather and analyse a detailed case history, conduct a physical examination and evaluate various tests and provocations is required. Treatment requires knowledge of both pharmacological and non-pharmacological elements.

Specialist competence in allergology further requires mastering the knowledge and skills base common to all internal medicine specialties. Being able to handle acute illnesses within internal medicine and the acute medical conditions related to internal medicine are included in this general base. Additionally, specialists should be able to handle the most common and frequently occurring illnesses and medical conditions within internal medicine, as well as the most common and frequently occurring conditions

within all branch specialties and adjacent base specialties. They should also master invasive and non-invasive measures and methods relevant to the internal medicine area of competence (intermediate objectives 1–3).

Requirements for communicative competence, leadership competence and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competences. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and an understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, financial and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must have a scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

Specialist medical training in allergology can begin before, during, or after specialist medical training in internal medicine and can be integrated with it.

Service in allergology can be organized in various ways, but it could be advantageous to change between the main training – that is, service in an allergy clinic – and simultaneous additional training. At the beginning and end of the training, a longer placement at an allergy clinic in order to clarify the objective of the specialist medical training can be beneficial. The main part of service in allergology should be situated at the end of the specialisation.

It is suitable that clinical service in allergology involve placement in a clinic where comprehensive care in allergy medicine is practised. It is, of course, essential that ST doctors be allowed to handle patients reflecting the entire illness panorama of allergy medicine early on in their training. Simultaneous additional training can be individualized based on ST doctors' prior experiences. Service should take place within several of the following areas of knowledge: respiratory medicine, audiology, clinical immunology, dermatology, gastroenterology, child and adolescent allergology, and occupational and environmental medicine, as well as clinical physiology. Placement in various units with operations within allergology is encouraged and a part of the service should be located in a university clinic.

ST doctors should be given opportunities for independent study, and it is recommended that they participate in national and international courses, and other professional assemblies.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To be able to handle acute illnesses within internal medicine and the medical conditions related to internal medicine	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Theoretical studies	

Intermediate objective 2	Teaching methods	Follow-up
To be able to initially handle the most common and frequently occurring illnesses and medical conditions within internal medicine, as well as the most common and frequently occurring conditions within the branch specialties and adjacent base specialties	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To master invasive and non-invasive measures and methods relevant to the internal medicine area of competence	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To master diagnostics, therapy, and follow-up of asthma, allergic and non-allergic rhinitis, functional breathing difficulties, and chronic obstructive lung disease	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To master diagnostics, therapy, follow-up, and prophylaxis of systematic allergic conditions, especially anaphylaxis, hypersensitivity to food products and medicines, and insect allergies To have an understanding of other immunological conditions including non-IgE mediated allergies	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course or large professional assembly	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To master diagnostics, therapy, and follow-up of the allergy-associated skin diseases urticaria and angiooedema, and to be able to handle atopic eczema	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course or large professional assembly	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To be able to evaluate in vivo tests, chiefly skin tests and provocations To be able to evaluate lung function tests, chiefly spirometry, and to be able to evaluate other methods for asthma diagnostics and follow-up	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 8	Teaching methods	Follow-up
To be able to evaluate in vitro tests, especially total and specific IgE in serum, and to be able to evaluate other relevant immunological diagnosis methods	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course or large professional assembly	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To have an understanding of allergens, and to have knowledge of recombinant allergens and hapten mechanisms	Large professional assembly	
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To master treatment of allergic conditions with immunomodulatory therapy, especially allergen-specific immunotherapy	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To master prevention, counselling, and rehabilitation in allergic conditions, and to have an understanding of risk factors in the environment To have knowledge of genetics and epidemiology in allergic illnesses	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Large professional assembly	
	Sitting-in	
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To have an understanding of medico-actuarial science relevant to the specialty, and to master writing a certificate	Clinical service under supervision in a unit that handles these issues	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin	Clinical service under supervision in a unit where such operations are practised	Certificate of approved clinical service and competence achieved, issued by current mentor
	Course or seminar	Certificate of successfully completed course, issued by course leader
	Sitting-in	

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Health care teamwork under supervision	

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Instruction under supervision	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Health care teamwork under supervision	

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management and regulatory systems of health and medical care	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Course	Certificate of successfully completed course, issued by course leader
	Written individual work under supervision according to scientific principles	Certificate of approved written individual work issued by current mentor
	Theoretical studies	

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Course	Certificate of successfully completed course, issued by course leader
	Quality and development work under supervision	Certificate of quality and development work issued by current mentor
	Theoretical studies	

Geriatrics

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Introduction

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In each description of objectives, there is a section headed 'Training structure' which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competence

Definition of area of competence

The specialty of geriatrics covers knowledge and skills in independently being able to investigate, diagnose, treat, and follow up acute and chronic conditions in the elderly, as well as knowledge of normal aging and its consequences for functional ability and vulnerability. Geriatrics also means observing several simultaneous illnesses and impairments, as well as assessing the gains from treatment from an individual perspective. Geriatric health care aims at minimizing the limitations in the ability to stay active that arise as a consequence of illness and aging. Geriatrics implies a focus on the patient's entire situation: medical, functional, psychological, and social. Work on a team with coordination of efforts between various occupational groups is necessary in order to meet the elderly patient's complex needs. The area of competence is further characterised by an interprofessional approach where co-ordination of efforts among various forms of health care and responsible authorities is required. This presupposes knowledge of the organisation and operating methods of health care services.

Competence requirements

Competence requirements for medical competence

Specialist competence in geriatrics requires knowledge and skills in order to be able to handle older patients with multiple illnesses. Furthermore, the ability to understand the older patient's complex clinical profile, with functional handicaps and an impact on their social situation, is required.

Specialist competence in geriatrics also requires basic knowledge in gerontology and understanding of how normal aging impacts the symptoms and course of an illness, as well as effects of treatment.

Moreover, specialist competence in geriatrics requires knowledge in medical ethics, and being able to prioritise primary and secondary preventive measures. It also requires medical knowledge of internal medicine, orthopaedic, neurological, psychiatric, and surgical illnesses. The ability to evaluate rehabilitation needs and the effects of various efforts on an elderly individual is crucial. Beyond that, competence in palliative care is required, as is mastering medicinal treatments for the elderly.

Specialist competence in geriatrics requires the ability to cooperate with various health care providers and professional categories. In addition, knowledge of the organisation of elder care, as well as the relevant laws and ordinances for geriatrics, is required.

Competence requirements for communicative competence, leadership competence and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competences. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and an understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, financial and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

It is best that the main part of the training in geriatrics take place through service within the doctor's own specialty. Simultaneous additional training should cover service within internal medicine and psychiatry and, beyond that, service within one or several other areas of competence.

The best theoretical training would take place in the form of courses, professional assemblies, and studies of the literature. During the introductory part of the service, ST doctors should obtain theoretical training in gerontology and common medical conditions among the elderly. Continued theoretical training should be adjusted to clinical service as regards time and content.

To acquire a scientific outlook and approach, it is of great importance that ST doctors carry out project work. For this work, ST doctors should have the opportunity to choose a scientifically qualified mentor at a university clinic.

The clinical service should be begun at a geriatrics unit with a focus on general geriatrics. The service should provide experience in stroke and fracture rehabilitation, palliative care, cognitive dysfunction, and acute and chronic medical conditions within general geriatrics. Service at individual residences and in other forms of outpatient care should be included in the training.

If any of the above parts of the training cannot be supplied by the parent clinic, that part should preferably be carried out at another clinic. It can be advantageous to complete clinical service within the specialists' own operations, as ST doctors then get the opportunity for more advanced job assignments.

Simultaneous additional training aims at giving ST doctors the necessary knowledge of common conditions in the geriatric patient, but which are mainly handled within other units. During simultaneous additional training in an internal medicine unit, it is suitable for ST doctors to immerse themselves in the medical conditions that are common for the elderly within cardiology, respiratory medicine, stroke, renal medicine, endocrinology, and gastroenterology. Service in an emergency clinic is also important. Simultaneous additional training within psychiatry should include general geriatric psychiatry and cognitive disorders, if they cannot be supplied within the main part of training.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To have an understanding within gerontology in order to be able to evaluate the functions of an aging person, changed symptoms and changed conditions for prevention, diagnostics, treatment, and rehabilitation	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course or large professional assembly	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Theoretical studies	

Intermediate objective 2	Teaching methods	Follow-up
To be able to handle older patients with multiple illnesses from a comprehensive viewpoint and regarding their medical, functional, psychological, and social situations	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To have an understanding of medical ethics and to be able to supply optimal diagnostics and treatment for the older patient	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course or large professional assembly	Certificate of successfully completed course, issued by course leader
	Intraprofessional group reflection	
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To be able to handle common somatic and psychological illnesses and symptoms in the acute and the chronic stage in older patients, with regard to impaired organ function, multiple illnesses, and individual gains from treatment	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course or large professional assembly	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To have an understanding of the effects of aging on pharmacokinetics and pharmacodynamics in the medicinal treatment of the elderly	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course or large professional assembly	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To be able to evaluate the need for rehabilitation, coordinate rehabilitation efforts, and assess rehabilitation results, and to have knowledge of the areas of competence of various team members	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course or large professional assembly	Certificate of successfully completed course, issued by course leader
	Health care team work under supervision	
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To be able to handle older patients with palliative needs	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course or large professional assembly	Certificate of successfully completed course, issued by course leader
	Health care team work under supervision	
	Sitting-in	
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To have an understanding of how common conditions in the elderly are handled within adjacent specialties, and to be able to evaluate when a patient should be referred further to another specialty	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course or large professional assembly	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To be able to handle medical conditions in the elderly within various forms of health care	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 10	Teaching methods	Follow-up
To have an understanding of the health risks and illness panorama for elderly people, and to be able to handle prioritising primary and secondary preventive efforts	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course or large professional assembly	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To have an understanding of the organisation of elder care, and to master cooperation with other health care providers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To master the application of laws and ordinances that concern health care and treatment of the elderly	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin	Clinical service under supervision in a unit where such operations are practised	Certificate of approved clinical service and competence achieved, issued by current mentor

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of approved clinical service and competence achieved, issued by current mentor
	Health care teamwork under supervision	

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Instruction under supervision	
	Theoretical studies	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	
	Large professional assembly	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	
	Large professional assembly	

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management and regulatory systems of health and medical care	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Theoretical studies	

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Course	Certificate of successfully completed course, issued by course leader
	Written individual work under supervision according to scientific principles	Certificate of approved written individual work issued by current mentor
	Large professional assembly	
	Theoretical studies	

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Course	Certificate of successfully completed course, issued by course leader
	Quality and development work under supervision	Certificate of quality and development work issued by current mentor
	Large professional assembly	

Specialties in paediatrics

Paediatrics

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Leadership competence
Competence within medical science and quality work

Introduction

On June 24, 2008, The National Board of Health and Welfare (Socialstyrelsen) decided to issue new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists of a general part with common provisions for all specialties and a specific part with all the descriptions of objectives. The description of objectives for the respective specialties should be understood against the background of the provisions in the general part.

In each description of objectives, there is a section headed 'Training structure', which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competences

Definition of area of competence

The specialty of paediatrics involves knowledge and an understanding of health and ill health in children and young people from 0 to 18 years of age. The specialty involves an understanding of the normal growth of the child. It also involves an understanding of prevention, investigation, diagnostics, treatment, follow-up and development of knowledge with regard to diseases, disorders and injuries related to their different stages.

Paediatrics is the base specialty for the branch specialties of child and adolescent allergology, child and adolescent neurology and habilitation, neonatology, paediatric oncology and paediatric cardiology.

Competence requirements

Competence requirements for medical competence

For specialist competence in paediatrics, an understanding of and skills in diagnostics and the treatment of all commonly occurring diseases and more serious diseases and dysfunctions from the neonatal period until adulthood is required. In addition, an understanding of the child's normal growth, rearing and psychomotor and mental development and also diagnostics for the purposes of being able to diagnose deviations from this at an early stage is necessary.

The capability to work in a preventive and family focused manner on general health information, vaccinations and the prevention of accidents is also required. The capability of taking a comprehensive view of the family with commitment and respect for the child's needs, an understanding of how the disease is affecting the child and its family and the capability to fulfil the child's entitlement to participate in evaluation and treatment on the basis of its level of development is required. In order to achieve this competence, it is necessary to be able to work in multidisciplinary teams and work together with other specialists in hospitals and out-patient clinics and with the social services, child welfare, schools, voluntary associations and society's institutions. For this work, an understanding of and the ability to serve the rights of children and young people in society, both nationally and globally is required. An ethical and professional approach, good skills in child centered clinical care at the centre, and the capability of advocating a healthy lifestyle among children and young people are also required. An understanding of the process for transferring chronically ill young people from paediatric medical treatment to adult medical treatment is also required.

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for the patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competences. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

During the first part of training, the emphasis should be on service within acute and general paediatrics. The training should provide broad basic knowledge. This should be done through clinical service within acute and general paediatric in- and out patient care, at a neonatal unit and within habilitation. The training should also take place at some of the following paediatric units: allergology and pulmonary diseases, cardiology, neurology, endocrinology and diabetes, nephrology, rheumatology, gastroenterology and oncology and haematology.

The training is supplemented with theoretical studies, courses and other pedagogic methods indicated. The training involves service as a primary on-call duty doctor and at the child welfare clinic. Treating and following the progress of chronically ill children over a longer continuous period is also included.

In addition to cross-training in paediatric psychiatry, service within other specialties of value for the training may be included.

During the period of training, it is imperative that a scientific way of thinking is acquired. This should result in ST doctors participating in quality and development work and also in scientific work to such an extent that it can be presented at a national meeting or another scientific gathering.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	**Teaching methods**	**Follow-up**
To master an understanding of the healthy child and young person and the influence that heredity, culture, the environment and society have on their development and health To master diagnostics of deviations from normal growth and development and master health-promoting work To be able to handle psychosocial problems and have an understanding of relevant legislation	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 2	**Teaching methods**	**Follow-up**
To master basic and acute paediatric conditions	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To be able to handle the most common and frequently occurring conditions within the area of neonatology	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To be able to handle the most common and frequently occurring conditions within the areas of allergology and pulmonary diseases	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To be able to handle the most common and frequently occurring conditions within the areas of neurology and habilitation	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To be able to handle the most common and frequently occurring conditions within the areas of endocrinology and metabolic disorders	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To be able to handle the most common and frequently occurring conditions within the area of nephrology	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To be able to handle the most common and frequently occurring conditions within the areas of gastroenterology, hepatology and nutrition	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To be able to handle the most common and frequently occurring conditions within the areas of infectious diseases, immunology and rheumatology	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To be able to handle the most common and frequently occurring conditions within the areas of oncology and haematology	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To be able to handle the most common and frequently occurring conditions within the area of cardiology	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To be able to handle the most common and frequently occurring conditions within the area of paediatric psychiatry	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin with respect for the patient's right to information, influence and participation in decisions and have an understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Intraprofessional group reflection	

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication with other doctors and co-workers, both written and oral, as well as with representatives of the public and various civil authorities	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Health care teamwork under supervision	
	Intraprofessional group reflection	

Intermediate objective 15	Teaching methods	Follow-up
To have a pedagogic capability of instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Instruction under supervision	
	Mentoring under supervision	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Intraprofessional group reflection	

Intermediate objective 17	Teaching methods	Follow-up
To have a capability of leading in collaboration and dialogue with a leadership characterised by participation and activity development	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Intraprofessional group reflection	
	Theoretical studies	

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, administration, finances, and regulatory systems of health care, as well as its governance, in order to make the best use of resources	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To have skill in a medical scientific viewpoint and approach	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor
	Intraprofessional group reflection	
	Theoretical studies	

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work.	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor
	Theoretical studies	

Intermediate objective 21	Teaching methods	Follow-up
To have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing illness	Large professional assembly	
	Theoretical studies	

Child and adolescent allergology

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In each description of objectives, there is a section headed 'Training structure', which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

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the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competences

Definition of area of competence

The specialty of child and adolescent allergology involves an advanced understanding of and skills in handling asthma, other pulmonary diseases, allergic diseases and hypersensitive reactions of a non-allergic nature in children and young people from the ages of 0 to 18 years of age. In addition to investigation, diagnostics, treatment, follow-up and care, individual and general preventive activity, an understanding of the importance of environmental factors for primary and secondary prevention and the development of knowledge within the area are also included.

Child and adolescent allergology is a branch specialty of the base specialty of paediatrics.

Competence requirements

Competence requirements for medical competence

For specialist competence in child and adolescent allergology, the ability to independently investigate, diagnose, treat, and follow-up asthma, allergic rhinoconjunctivitis, acute allergic reactions and anaphylaxis, acute and chronic urticaria, eczema, food allergies and hypersensitivity to medicines and vaccines is required. The capability to initially handle other pulmonary diseases, increased sensitivity to infections and immunodeficiency is also required.

The capability of working in multidisciplinary allergy teams with the most seriously ill allergic children is also required. In addition to this, the capability of working as part of a network of doctors and nurses at paediatric clinics, out-patient, primary health care and nursery and school health services and the capability of training everyone in the care chain and structuring the transfer of teenagers to adult care are also required. For specialist competence in child and adolescent allergology, cooperation with representatives of dermatology, clinical physiology, clinical immunology, pulmonary medicine, allergology, gastroenterology and ear, nose and throat diseases is also required.

For specialist competence in child and adolescent allergology, an understanding of and skills in diagnostics and the treatment of all commonly occurring diseases and more serious diseases and dysfunctions from the neonatal period until adulthood are also required. In addition, an understanding of the child's normal growth, rearing and psychomotor and mental development and also diagnostics for the purposes of being able to diagnose deviations from this at an early stage is necessary. The capability of being able to work in a preventive and family focused manner on general health information, vaccinations and the prevention of accidents is also required. The capability of taking a comprehensive view of the family with commitment

and respect for the child's needs, an understanding of how the disease is affecting the child and its family and the capability to fulfil the child's entitlement to participate in evaluation and treatment on the basis of its level of development are required. In order to achieve such competence, it is necessary to be able to work in multidisciplinary teams and work together with other specialists in hospitals and out-patient clinics and with the social services, child welfare, schools, voluntary associations and society's institutions. For this work, an understanding of and the ability to serve the rights of children and young people in society, both nationally and globally are required. An ethical and professional approach, good skills in child centered clinical care and the capability of advocating a healthy lifestyle among children and young people are also required. An understanding of the process for transferring chronically ill young people from paediatric medical care to adult medical care is also required (intermediate objectives 1–4)

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for the patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competences. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must develop the capability of continually examining and identifying, together with the requirements of the operation, their own need of in-service training in order to be able to meet the demand for the best possible care for the patients.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous

systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

Specialist medical training in child and adolescent allergology can begin before, during, or after specialist medical training in paediatrics and can be integrated with it.

Specialist training in child and adolescent allergology should consist of service in a paediatric allergy clinic. The training should include both theoretical and practical elements in all areas of the field of child and adolescent allergology and should take place over a longish continuous period of time.

In order for ST doctors to be able to acquire the basics of child and adolescent allergology, it is important that the training can begin with a long period of basic training. In order for ST doctors to then be able to acquire an advanced understanding in the area, part of the service should take place at a paediatric allergy clinic at a university clinic or the equivalent. A shorter part of the training can take place through cross-training at one or more of the following units: clinical physiology, clinical immunology, ear nose and throat diseases, skin diseases and adult medical allergy clinic.

It is imperative that ST doctors acquire a scientific way of thinking during the training. This should result in ST doctors participating in quality and development work and also in scientific work to such an extent that it can be presented at a national meeting or another scientific gathering.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To master an understanding of the healthy child and young person and the influence that heredity, culture, the environment and society have on their development and health To master diagnostics of deviations from normal growth and development and master health-promoting work To be able to handle psychosocial problems and have an understanding of the relevant legislation	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 2	Teaching methods	Follow-up
To master basic and acute paediatric conditions	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To be able to handle the most common and frequently occurring conditions in the areas of neonatology, allergology and pulmonary diseases, neurology and habilitation, endocrinology and metabolic disorders, nephrology, gastroenterology hepatology and nutrition, infectious diseases, immunology and rheumatology, oncology and haematology and cardiology	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To be able to handle the most common and frequently occurring conditions within the area of paediatric psychiatry	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To master investigation, diagnostics, treatment and follow-up of asthma and allergic rhinoconjunctivitis	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
To master methods for investigating pulmonary function and evaluating bronchial provocations	Course	Certificate of successfully completed course, issued by course leader
To master inhalation treatment for children of all ages	Health care teamwork under supervision	
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To master investigation, diagnostics, treatment and follow-up of acute allergic reactions and anaphylaxis	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
To master providing instructions for the patient's own acute treatment	Course	Certificate of successfully completed course, issued by course leader
	Health care teamwork under supervision	
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To master investigation, diagnostics, treatment and follow-up of acute and chronic urticaria	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To master investigation, diagnostics, treatment and follow-up of eczema	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Health care teamwork under supervision	
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To master investigation, diagnostics, treatment and follow-up of foodstuff allergies To be able to handle dietetic treatment	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Health care teamwork under supervision	
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To master treatment using allergen-specific immunotherapy, including investigation of indications, procedures for treatment and follow-up	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To master investigation, diagnostics, treatment and follow-up of hypersensitivity to medicines and vaccines and master the vaccination of high-risk patients	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To be able to initially handle the medical investigation, diagnostics and treatment of pulmonary diseases besides asthma, increased sensitivity to infections and immunodeficiency	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin with respect for the patient's right to information, influence and participation in decisions and have an understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Intraprofessional group reflection	

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication with other doctors and co-workers, both written and oral, as well as with representatives of the public and various civil authorities	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Health care teamwork under supervision	
	Intraprofessional group reflection	

Intermediate objective 15	Teaching methods	Follow-up
To have a pedagogic capability of instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Instruction under supervision	
	Mentoring under supervision	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	intraprofessional group reflection	

Intermediate objective 17	Teaching methods	Follow-up
To have a capability of leading in collaboration and dialogue with a leadership characterised by participation and activity development	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Intraprofessional group reflection	
	Theoretical studies	

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, administration, finances, and regulatory systems of health care, as well as its governance, in order to make the best use of resources	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To have skill in a medical scientific viewpoint and approach	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor
	Intraprofessional group reflection	
	Theoretical studies	

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work.	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor
	Theoretical studies	

Intermediate objective 21	Teaching methods	Follow-up
To have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing illness	Large professional assembly	
	Theoretical studies	

Child and adolescent neurology and habilitation

Introduction
Explanation of terms
General definition of competencies
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Introduction

On June 24, 2008, The National Board of Health and Welfare (Socialstyrelsen) decided to issue new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists of a general part with common provisions for all specialties and a specific part with all the descriptions of objectives. The description of objectives for the respective specialties should be understood against the background of the provisions in the general part.

In each description of objectives, there is a section headed 'Training structure', which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

Definition of area of competence

The specialty of child and adolescent neurology and habilitation involves normal and deviating developments in the central nervous system and the peripheral neuromuscular systems from the period as a foetus up through the childhood years and the transition to adulthood, 0 to 18 years of age. The specialty involves prevention, investigation, diagnostics, treatment, follow-up and the development of knowledge with regard to diseases of and injuries to these systems and overall multidisciplinary handling of accompanying dysfunctions.

Child and adolescent neurology and habilitation is a branch specialty of the base specialty of paediatrics.

Competence requirements

Competence requirements for medical competence

For specialist competence in child and adolescent neurology and habilitation, the capability of being able to investigate and treat diseases and conditions in the entire neuropaediatric field independently and in cooperation with multiprofessional teams, in the area of both child and adolescent neurology and habilitation, is required. It is necessary to master coordination work, consultancy functions and multi-professional work.

For specialist competence, it is also necessary to master deviations in mental, cognitive and motor skills development, mental retardation, cognitive disorders, cerebral palsy and epilepsy, which are the most common conditions in the specialty. In addition, it is necessary to be required to be able to handle other conditions, such as inflammatory and degenerative brain disease. Brain tumours, deformities, including neural tube defects and hydrocephalus are rarer or require a higher degree of specialisation. It is also necessary to be able to evaluate and initially handle the extremely rare conditions that require complex investigation at a risk level or international level, which constitute a central part of the neuropaediatric field of knowledge. Common conditions of a paediatric neurological nature, such as headache and benign febrile seizures and also the handling of epileptic attacks belong to the paediatrics area of competence.

For specialist competence in child and adolescent neurology and habilitation, an understanding of and skills in diagnostics and the treatment of all commonly occurring diseases and more serious diseases and dysfunctions from the newborn period until adulthood is also required. In addition, an understanding of the normal growth of the child, rearing and psychomotor and mental development and also diagnostics for the purposes of being able to diagnose deviations from this at an early stage is necessary. The capability of being able to work in a preventive and family focused manner on general health information, vaccinations and the prevention of accidents is also required. The capability of taking a comprehensive view of the family with

commitment and respect for the child's needs, an understanding of how the disease is affecting the child and its family and the capability of fulfilling the child's entitlement to participate in evaluation and treatment on the basis of its level of development are required. In order to achieve such competence, it is necessary to be able to work in multidisciplinary teams and work together with other specialists in hospitals and out-patient clinics and with the social services, child welfare, schools, voluntary associations and society's institutions. For this work, an understanding of and the capability of advocating the rights of children and young people in society, both nationally and globally is required. An ethical and professional approach, good skills in child centered clinical care, and the capability of advocating a healthy lifestyle among children and young people are also required. An understanding of the process for transferring chronically ill young people from paediatric medical care to adult medical care is also required (intermediate objectives 1–4)

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for the patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for the patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competences. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous sys-

tematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

Specialist medical training in child and adolescent neurology and habilitation can begin before, during, or after specialist medical training in paediatrics and can be integrated with it.

The neuropaediatric training should take place through service during connected periods in child and adolescent neurology and paediatric habilitation, integrated with theoretical studies, courses and vocational gatherings.

The paediatric neurological service should be completed with a focus on acute, possibly recurring, conditions and neurological investigation. The service should mainly take place at a regional hospital with a child and adolescent neurology unit.

Service in paediatric habilitation will be completed within the habilitation's multidisciplinary structure, focusing on children and young people with neurological dysfunctions. Special emphasis should be put on the doctor’s training in medically leading a team in paediatric habilitation.

Cross-training should be included in the training, primarily in the form of service in clinical neurophysiology and adult neurology. The training may also include service in clinical genetics, paediatric neuropsychiatry, neurosurgery and neuroradiology.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To master an understanding of the healthy child and young person and the influence that heredity, culture, the environment and society have on their development and health To master diagnostics of deviations from normal growth and development and master health-promoting work {0>Att kunna handlägga psykosociala problem samt att ha kännedom om relevant lagstiftning<}0{>To be able to handle psychosocial problems and have an understanding of relevant legislation	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 2	Teaching methods	Follow-up
To master basic and acute paediatric conditions	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To be able to handle the most common and frequently occurring conditions in the areas of neonatology, allergology and pulmonary diseases, neurology and habilitation, endocrinology and metabolic disorders, nephrology, hepatology and nutrition, infectious diseases, immunology and rheumatology, oncology and haematology and cardiology	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To be able to handle the most common and frequently occurring conditions within the area of paediatric psychiatry	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To master clinical and laboratory supported investigation and treatment of epilepsy and other paroxysmal conditions.	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To master mental, cognitive and social developments and deviations in these To master investigation and habilitation of mental retardation and disorders involving the degree of activity and attentiveness and master autistic spectrum disorders and other cognitive disorders	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor Clinical service under supervision in a unit where such operations are practised
	Course	Certificate of successfully completed course, issued by course leader
	Health care teamwork under supervision	
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To master investigation, treatment and habilitation and deviations in motor skill development, cerebral palsy and neural tube defects as well as in hydrocephalus	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Health care teamwork under supervision	
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To be able to handle clinically and laboratory supported investigations, treatment and rehabilitation of acquired injuries to the nervous system of a vascular, metabolic, inflammatory, infectious or traumatic nature	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Health care teamwork under supervision	
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To be able to handle neurological conditions during the neonatal period, including dysmorphic conditions and genetic syndromes	Auscultation under supervision in a unit that handles these conditions	
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 10	Teaching methods	Follow-up
To be able to handle clinically and laboratory supported diagnostics and habilitation of neuromuscular diseases	Auscultation under supervision in a unit that handles these conditions	
	Course or large occupation related conference	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To be able to handle states of anxiety, painful conditions, complicated headache and be able to handle sleep and wakefulness disorders	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To be able to handle tumour diseases of the central nervous system in children and young people	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin with respect for the patient's right to information, influence and participation in decisions and have an understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Intraprofessional group reflection	

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication with other doctors and co-workers, both written and oral, as well as with representatives of the public and various civil authorities	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Health care teamwork under supervision	
	Intraprofessional group reflection	

Intermediate objective 15	Teaching methods	Follow-up
To have a pedagogic capability of instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Instruction under supervision	
	Mentoring under supervision	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Intraprofessional group reflection	

Intermediate objective 17	Teaching methods	Follow-up
To have a capability of leading in collaboration and dialogue with a leadership characterised by participation and activity development	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Intraprofessional group reflection	
	Theoretical studies	

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, administration, finances, and regulatory systems of health care, as well as its governance, in order to make the best use of resources	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To have skill in a medical scientific viewpoint and approach	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor
	Intraprofessional group reflection	
	Theoretical studies	

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work.	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor
	Theoretical studies	

Intermediate objective 21	Teaching methods	Follow-up
To have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing illness	Large professional assembly	
	Theoretical studies	

Neonatology

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Explanation of terms
General definition of competencies
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Leadership competence
Competence within medical science and quality work

Introduction

On June 24, 2008, The National Board of Health and Welfare (Socialstyrelsen) decided to issue new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists of a general part with common provisions for all specialties and a specific part with all the descriptions of objectives. The description of objectives for the respective specialties should be understood against the background of the provisions in the general part.

In each description of objectives, there is a section headed 'Training structure', which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competences

Definition of area of competence

The specialty of neonatology involves special knowledge and understanding of health and ill health during the neonatal period. It involves an understanding of the unborn, newborn and infant child's normal growth and development and prevention, investigation, diagnostics, treatment, follow up and development of knowledge regarding diseases, disorders and injuries in the newborn child.

Neonatology is a branch specialty of the base specialty of paediatrics.

Competence requirements

Competence requirements for medical competence

For specialist competence in neonatology, an understanding and practical skills in diagnostics and treatment of all common diseases and serious diseases during the neonatal period are required. In addition, an understanding of the newborn child's normal adaptation, growth, rearing and psychomotor development and also diagnostics for the purposes of being able to demonstrate deviations from this at an early stage are necessary.

In addition, the capability of cooperation with obstetrics regarding high-risk pregnancies in order to plan together for an appropriate time and location for the delivery and a suitable means of delivery is required. The capability of taking a comprehensive view of the family with commitment and respect for the newborn's needs and integrity and how the disease is affecting the child and its family is also required. An ethical and professional approach, as well as skills in clinical care, with the newborn's needs at the centre, is also required.

For specialist competence in neonatology, an understanding of and skills in diagnostics and the treatment of all commonly occurring diseases and more serious diseases and dysfunctions from the newborn period until adulthood are required. In addition, an understanding of the child's, normal growth rearing and psychomotor and mental development and also diagnostics for the purposes of being able to diagnose deviations from this at an early stage is necessary. The capability of being able to work in a preventive and family focused manner on general health information, vaccinations and the prevention of accidents is also required. The capability of taking a comprehensive view of the family with commitment and respect for the child's needs, an understanding of how the disease is affecting the child and its family and the capability of fulfilling the child's entitlement to participate in evaluation and treatment on the basis of its level of development are required. In order to achieve this competence, it is necessary to be able to work in multidisciplinary teams and work together with other specialists in hospitals and out-patient clinics and with the social services, child welfare,

schools, voluntary associations and society's institutions. For this work, an understanding of and the ability to serve the rights of children and young people in society, both nationally and globally are required. An ethical and professional approach, good skills in child centered clinical care and the capability of advocating a healthy lifestyle among children and young people are also required. An understanding of the process for transferring chronically ill young people from paediatric medical care to adult medical care is also required (intermediate objectives 1–4)

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for the patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for the patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competences. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

Specialist medical training in neonatology can begin before, during, or after specialist medical training in paediatrics and can be integrated with this.

Specialist training should consist of service at a neonatal unit, including service at a neonatal intensive care ward at a university hospital. It is imperative that there is a continuous period of service at a university hospital. Service as a neonatal on-call duty doctor should be included in the training. The training should be integrated with theoretical studies, courses and regularly recurring further training meetings and conferences. The training should include service at a maternity ward, another intensive care ward and a paediatric cardiology unit. During the training period, it is imperative that a scientific way of thinking is acquired and that it results in ST doctors participating in quality and development work and, preferably, also in a scientific work of such as scope that it can be presented at a national meeting or some other scientific gathering.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To master an understanding of the healthy child and young person and the influence that heredity, culture, the environment and society have on their development and health To master diagnostics of deviations from normal growth and development and master health-promoting work To be able to handle psychosocial problems and have an understanding of relevant legislation	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 2	Teaching methods	Follow-up
To master basic and acute paediatric conditions	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To be able to handle the most common and frequently occurring conditions in the areas of neonatology, allergology and pulmonary diseases, neurology and habilitation, endocrinology and metabolic disorders, nephrology, hepatology and nutrition, infectious diseases, immunology and rheumatology, oncology and haematology and cardiology	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To be able to handle the most common and frequently occurring conditions within the area of paediatric psychiatry	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To master an understanding of the unborn child and be able to handle and plan for optimum delivery conditions	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To master an understanding of the newborn child and the affect and adjustment that birth constitutes and master deviations from normal adaptation	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To master an understanding of the premature child and the affect, adjustment and immaturity of various organ systems that premature birth entails	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To master cardiopulmonary resuscitation of newborn children with asphyxia and the complications this could entail To master an ethical approach in connection with serious asphyxia and to be able to handle the follow-up of these children	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To be able to handle deformities of different organ systems during the neonatal period, including syndromes, neuromuscular and metabolic disorders	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To master infectious diseases and hygiene procedures during the neonatal period	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To master the medical technology equipment used in the specialty and master neonatal transport	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
To master ultrasound diagnostics and the interpretation of information regarding deviations in the CNS and in the heart's anatomy and function	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To master follow-up procedures and evaluation of the development of premature children and children that have been ill during the neonatal period	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin with respect for the patient's right to information, influence and participation in decisions and have an understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor Clinical service under supervision in a unit where such operations are practised
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Intraprofessional group reflection	

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication with other doctors and co-workers, both written and oral, as well as with representatives of the public and various civil authorities	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Health care teamwork under supervision	
	Intraprofessional group reflection	

Intermediate objective 15	Teaching methods	Follow-up
To have a pedagogic capability of instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Instruction under supervision	
	Mentoring under supervision	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor Clinical service under supervision in a unit where such operations are practised
	Course	Certificate of successfully completed course, issued by course leader
	Intraprofessional group reflection	

Intermediate objective 17	Teaching methods	Follow-up
To have a capability of leading in collaboration and dialogue with a leadership characterised by participation and activity development	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Intraprofessional group reflection	
	Theoretical studies	

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, administration, finances, and regulatory systems of health care, as well as its governance, in order to make the best use of resources	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To have skill in a medical scientific viewpoint and approach	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor
	Intraprofessional group reflection	
	Theoretical studies	

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work.	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor
	Theoretical studies	

Intermediate objective 21	Teaching methods	Follow-up
To have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing illness	Large professional assembly	
	Theoretical studies	

Paediatric oncology

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Introduction

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In each description of objectives, there is a section headed 'Training structure', which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

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the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
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seminar
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training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competences

Definition of area of competence

The specialty of paediatric oncology involves an understanding of oncological and haematological diseases in children and young people from 0 to 18 years of age. The specialty involves epidemiology, investigation, diagnostics, treatment and follow-up of cancer and blood diseases in children and young people. The development of knowledge is also part of the area of competence. Late complications that may occur after treating these diseases during the childhood years are also part of the specialty.

Paediatric oncology is a branch specialty of the base specialty of paediatrics.

Competence requirements

Competence requirements for medical competence

For specialist competence in paediatric oncology, an understanding of and skills in diagnostics and therapy covering the cancer diseases and non-malignant haematological diseases that occur in children and young people are required. An understanding of and capability of being able to initially handle haematological malignancies, lymphomas, solid tumours, including neuroblastoma, nephroblastoma, soft tissue sarcoma, skeletal tumours and tumours of the central nervous system are also required. In addition, an understanding of and capability of being able to initially handle non-malignant haematological diseases and coagulation disorders is necessary.

An understanding of the molecular biological background of malignant diseases, the capability of being able to handle suspected malignant diseases and taking responsibility for the differential diagnostic investigation and being able to handle children with leukaemia are also required.

The competence requirement also involves the capability of prescribing cytostatic agents with their special safety requirements and being able to handle acute complications following cytostatic treatment.

An understanding of nutrition, antiemetic treatment and pain treatment for the patient group in question is also required.

For specialist competence, capability of working in multidisciplinary teams and cooperating with representatives of related specialties is also required. For specialist competence, skill in a medical scientific view and approach, which is relevant to the specialty, and the capability of cooperating nationally and internationally in the field of knowledge are also required.

For specialist competence in paediatric oncology, an understanding of and skills in diagnostics and the treatment of all common diseases and more serious diseases and dysfunctions from the neonatal period until adulthood are also required. In addition, an understanding of the child’s normal growth,

rearing and psychomotor and mental development and also diagnostics for the purposes of being able to diagnose deviations from this at an early stage is necessary. The capability of being able to work in a preventive and family focused manner on general health information, vaccinations and the prevention of accidents is also required. The capability of taking a comprehensive view of the family with commitment and respect for the child's needs, an understanding of how the disease is affecting the child and its family and the capability of fulfilling the child's entitlement to participate in evaluation and treatment on the basis of its level of development are required. In order to achieve this competence, it is necessary to be able to work in multidisciplinary teams and work together with other specialists in hospitals and outpatient clinics and with the social services, child welfare, schools, voluntary associations and society's institutions. For this work, an understanding of and the ability to serve the rights of children and young people in society, both nationally and globally, are required. An ethical and professional approach, good skills in child centered clinical care and the capability of advocating a healthy lifestyle among children and young people are also required. An understanding of the process for transferring chronically ill young people from paediatric medical care to adult medical care is also required (intermediate objectives 1–4)

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for the patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for the patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competences. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work and quality work.

Training structure

Specialist medical training in paediatric oncology can begin before, during, or after specialist medical training in the specialty of paediatrics and can be integrated with this.

In addition to cross-training during service in paediatric psychiatry, service in other areas of knowledge may be of value for the training, primarily in a haematological laboratory, a radiotherapy and oncology unit or other activities relevant to the specialty.

It is very important that service in paediatric oncology takes place at a university hospital at a paediatric oncology centre. This service should take place over longer continuous periods and include participation in the handling of children with oncological and haematological diseases and should result in practical skills in diagnostics, treatment and follow-up of children with oncological and haematological diseases. It is also very important that the service develops the competence of being able to work in a team and the capability of being able to participate in national and international collaboration projects.

During the training period, it is imperative that ST doctors acquire a scientific way of thinking. This should result in a scientific work and also in quality and development work.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To master an understanding of the healthy child and young person and the influence that heredity, culture, the environment and society have on their development and health To master diagnostics of deviations from normal growth and development and master health-promoting work To be able to handle psychosocial problems and have an understanding of relevant legislation	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 2	Teaching methods	Follow-up
To master basic and acute paediatric conditions	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To be able to handle the most common and frequently occurring conditions in the areas of neonatology, allergology and pulmonary diseases, neurology and habilitation, endocrinology and metabolic disorders, nephrology, hepatology and nutrition, infectious diseases, immunology and rheumatology, oncology and haematology and cardiology	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of passed course issued by mentor
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To be able to initially handle the most common and frequently occurring conditions within the area of paediatric psychiatry	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To master ordinary and serious conditions in non-malignant haematology in children and young people	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To be able to evaluate children and young people with haemoglobinpathies, coagulation disorders and uncommon non-malignant haematological diseases and their chronic sequelae	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Auscultation under supervision in a unit that handles these conditions	
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To master handling of leukaemia and lymphoma in children and young people and their acute treatment complications To master the carrying out of bone marrow aspiration and bone marrow biopsies and intrathecal cytostatic treatment To have an understanding of late complications of diseases and treatment	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To be able to initially handle the medical investigation and treatment of children and young people with tumours of the central nervous system and their acute complications To have an understanding of late complications of diseases and treatment	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To be able to handle neuroblastoma and renal tumours in children and young people To have an understanding of late complications of diseases and treatment	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To be able to handle soft tissue sarcoma and skeletal tumours in children and young people To have an understanding of late complications of diseases and treatment	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To master the supporting treatment in children and young people with cancer diseases in cytostatic and radiation treatment and master acute complications in this kind of treatment To have an understanding of late complications of diseases and treatment	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To have an understanding of allogeneic and autologous stem cell transplantation in children and young people and have an understanding of immunosuppresssive treatment following allogeneic stem cell transplantation	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
To have an understanding of late complications of diseases and treatment	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin with respect for the patient's right to information, influence and participation in decisions and have an understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Intraprofessional group reflection	

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication with other doctors and co-workers, both written and oral, as well as with representatives of the public and various civil authorities	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Health care teamwork under supervision	
	Intraprofessional group reflection	

Intermediate objective 15	Teaching methods	Follow-up
To have a pedagogic capability of instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Instruction under supervision	
	Mentoring under supervision	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Intraprofessional group reflection	

Intermediate objective 17	Teaching methods	Follow-up
To have a capability of leading in collaboration and dialogue with a leadership characterised by participation and activity development	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Intraprofessional group reflection	
	Theoretical studies	

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, administration, finances, and regulatory systems of health care, as well as its governance, in order to make the best use of resources	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To have skill in a medical scientific viewpoint and approach	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor
	Intraprofessional group reflection	
	Theoretical studies	

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work.	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor
	Theoretical studies	

Intermediate objective 21	Teaching methods	Follow-up
To have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing illness	Large professional assembly	
	Theoretical studies	

Paediatric cardiology

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General definition of competencies
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Introduction

On June 24, 2008, The National Board of Health and Welfare (Socialstyrelsen) decided to issue new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists of a general part with common provisions for all specialties and a specific part with all the descriptions of objectives. The description of objectives for the respective specialties should be understood against the background of the provisions in the general part.

In each description of objectives, there is a section headed 'Training structure', which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competences

Definition of area of competence

The specialty of paediatric cardiology involves an advanced understanding of and skills in cardiac diseases and circulatory diseases in children and young people from 0 to 18 years of age, with prevention, investigation, diagnostics, treatment and follow-up of congenital and acquired diseases of the circulatory organs and the development of knowledge within the area. The specialty involves a further understanding of diagnostics of and about the circulatory organs' development during the foetal period and late complications and dysfunctions in adults as a result of congenital and acquired diseases of the circulatory organs during the years of childhood.

Paediatric cardiology is a branch specialty of the base specialty of paediatrics.

Competence requirements

Competence requirements for medical competence

For specialist competence in paediatric cardiology, an understanding is required of the circulatory organs' normal function and the development of the normal physiology of the foetal circulation. An understanding of and skills in physical diagnostics and relevant diagnostics methods and an understanding of and skills in diagnostics, investigation, treatment and follow-up of all the most common and frequently occurring congenital and acquired disorders of the circulatory organs from the neonatal period to adulthood is also required. An understanding of how to be able to initially handle the medical investigation, diagnostics and treatment of uncommon congenital and acquired disorders of the circulatory organs and of circulatory organ disorders during the foetal period is also required. The capability of working in a multi-disciplinary manner through close cooperation with representatives of thoracic surgery, anaesthesia and intensive care and also representatives of paediatrics, medical imaging and technology, clinical physiology, cardiology, obstetrics and gynaecology and psychologists, dieticians, welfare officers and physiotherapists is also required.

For specialist competence in paediatric cardiology, an understanding of and skills in diagnostics and the treatment of all common diseases and more serious diseases and dysfunctions from the neonatal period until adulthood are also required. In addition, an understanding of the child's normal growth, rearing and psychomotor and mental development and also diagnostics for the purposes of being able to diagnose deviations from this at an early stage is necessary. The capability to work in a preventive and family focused manner on general health information, vaccinations and the prevention of accidents is also required. The capability to take a comprehensive view of the family with commitment and respect for the child's needs, an

understanding of how the disease is affecting the child and its family and the capability of fulfilling the child's entitlement to participate in evaluation and treatment on the basis of its level of development are required. In order to achieve this competence, it is necessary to be able to work in multidisciplinary teams and work together with other specialists in hospitals and outpatient clinics and with the social services, child welfare, schools, voluntary associations and society's institutions. For this work, an understanding of and the ability to serve the rights of children and young people in society, both nationally and globally, are required. An ethical and professional approach, good skills in child centered clinical care and the capability of advocating a healthy lifestyle among children and young people are also required. An understanding of the process for transferring chronically ill young people from paediatric medical care to adult medical care is also required (intermediate objectives 1–4)

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for the patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for the patients' involvement in, and responsibility for, their own care.

Gender and multicultural aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competences. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, pa-

tient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

Specialist medical training in paediatric cardiology can begin before, during, or after specialist medical training in paediatrics and can be integrated with this.

Specialist training in paediatric cardiology should take place at a paediatric cardiology unit at a university hospital over longish continuous periods of time. The training should provide a broad basic knowledge of paediatric cardiology and take place through clinical service in both in- and out-patient care. For this reason, it is imperative that part of the service takes place at an operative unit. A shorter part of the training can take place through service primarily at a ward for medical imaging and technology, thoracic surgery or cardiology.

The training should contain both theoretical and practical elements in all areas of paediatric cardiology. Training in the handling of relevant diagnostic and therapeutic methods should be introduced at an early stage and continue continuously as an integral part of the clinical work during training.

Quality and development work should be carried out during the training and preferably result in a presentation at a national or international scientific meeting.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To master an understanding of the healthy child and young person and the influence that heredity, culture, the environment and society have on their development and health To master diagnostics of deviations from normal growth and development and master health-promoting work To be able to handle psychosocial problems and have an understanding of relevant legislation	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 2	Teaching methods	Follow-up
To master basic and acute paediatric conditions	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To be able to handle the most common and frequently occurring conditions in the areas of neonatology, allergology and pulmonary diseases, neurology and habilitation, endocrinology and metabolic disorders, nephrology, hepatology and nutrition, infectious diseases, immunology and rheumatology, oncology and haematology and cardiology	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 4	Teaching methods	Follow-up
To be able to initially handle the most common and frequently occurring conditions within the area of paediatric psychiatry	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To master the normal function and development of the circulatory organs and the normal physiology of the foetal circulation and adjustment on birth. To master physical diagnostics and diagnostic methods for evaluation of the circulatory organs' function in the area of competence	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To master investigation, diagnostics, medical treatment and follow-up of the most common and frequently occurring congenital heart diseases To master investigation, diagnostics, medical treatment and follow-up of uncommon and complex congenital heart disease	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To master investigation, diagnostics, medical treatment and follow-up of the most common and frequently occurring acquired heart diseases To be able to handle the medical investigation, diagnostics, treatment and follow-up of uncommon acquired heart diseases	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To master investigation, diagnostics, medical treatment and follow-up of the most common and frequently occurring cardiac dysrhythmia To be able to handle the medical investigation, diagnostics, treatment and follow-up of uncommon cardiac dysrhythmia	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To master investigation, diagnostics, treatment and follow-up of heart failure To master diagnostics, investigation, treatment and follow-up of acute circulatory conditions within the area of competence	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor Clinical service under supervision in a unit where such operations are practised
	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To master investigation, diagnostics, medical treatment and follow-up of the most common and frequently occurring cardiomyopathies To have an understanding of diagnostics, investigation, treatment and follow-up of uncommon cardiomyopathies and genetic and metabolic heart diseases	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To have an understanding of investigation, diagnostics, treatment and follow-up of diseases of the circulatory organs during the foetal period	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To have an understanding of investigation, diagnostics, treatment and follow-up of terminal heart failure, pulmonary hypertension and transplantation of thoracic organs To have an understanding of late complications and dysfunction in congenital heart disease in children, young people and adults	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin with respect for the patient's right to information, influence and participation in decisions and have an understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Intraprofessional group reflection	

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication with other doctors and co-workers, both written and oral, as well as with representatives of the public and various civil authorities	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Health care teamwork under supervision	
	Intraprofessional group reflection	

Intermediate objective 15	Teaching methods	Follow-up
To have a pedagogic capability of instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
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	Instruction under supervision	
	Mentoring under supervision	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
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Intermediate objective 17	Teaching methods	Follow-up
To have a capability of leading in collaboration and dialogue with a leadership characterised by participation and activity development	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Intraprofessional group reflection	
	Theoretical studies	

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, administration, finances, and regulatory systems of health care, as well as its governance, in order to make the best use of resources	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To have skill in a medical scientific viewpoint and approach	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor
	Intraprofessional group reflection	
	Theoretical studies	

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work.	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor
	Theoretical studies	

Intermediate objective 21	Teaching methods	Follow-up
To have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing illness	Large professional assembly	
	Theoretical studies	

Psychiatric specialties

Psychiatry

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Introduction

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Explanation of terms

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the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

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reflection done in a group together with other doctors, chiefly for the purpose of further education and training

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course
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training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competences

Definition of area of competence

Psychiatry is a medical specialty involving investigation, evaluation, diagnostics, treatment, and follow-up, as well as care and rehabilitation, of mental illness in adults where the degree of severity is of the nature that it requires the coordinated resources of specialised psychiatry.

Here, the term mental illness also refers to the terms personality disorder and addiction. It means a mental dysfunction with an affliction and/or function restriction.

Psychiatry is the base specialty for the branch specialty of forensic psychiatry.

Competence requirements

Competence requirements for medical competence

Specialist competence in psychiatry requires being able to handle all common mental illnesses and being able to handle less common mental illnesses. The ability to handle acute psychiatric conditions and to initiate psychiatric measures in the event of catastrophes are also required.

Specialist competence in psychiatry also requires mastering psychopharmacological and electroconvulsive therapy, and having an understanding of underlying mechanisms of the origin of mental illness and its treatment. An understanding of differential diagnostics between internal medicine and neurological or mental illnesses, and being able to initially handle somatic conditions in patients with mental illnesses, are also required.

It is also necessary to be able to handle illnesses in the areas of addiction medicine and geriatric psychiatry. An understanding of child and adolescent psychiatry is also required for specialist competence. An understanding of the theoretical basis for the different psychological treatment methods, an ability to evaluate suitable psychological methods for the treatment of different mental illnesses and an ability to handle patients with psychological treatment methods are also necessary.

Mastering the application of the laws and statutes that regulate governance within psychiatry, and having an understanding of other legislation that is of relevance for psychiatry, is also required.

Finally, it is necessary to have an understanding of the methods for investigating and determining patients' cognitive function and of the coordination and follow-up of treatment and rehabilitation measures.

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for the patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competences. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership distinguished by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

Work within the area of in- and out-patient adult psychiatry forms the basis for specialist medical training. Early experience in the areas of acute psychiatry and compulsory care are important. Service in addiction medicine and at units that investigate and treat geriatric psychiatry patients, as well as service in child and adolescent psychiatry, should also be included in specialist medical training. Service in forensic psychiatry is also recommended. Service is also recommended at units that handle a mixed clientele of patients, as well as at subspecialised units.

A course in psychotherapy where ST doctors can acquire an understanding of different psychological treatment methods is very important. During the course, it is important that theory and practical skills are integrated under the supervision of a licensed psychotherapist who is a trained mentor. The course should be alternated with clinical service so that ST doctors can apply the knowledge in their everyday activities as doctors.

In addition, service in related specialties should form part of specialist medical training. Service within some area of neurological specialty, preferably neurology or rehabilitation, and in an internal medicine specialty is particularly valuable. Service within general medicine can, to some extent, replace internal medicine service. As a conclusion, ST doctors should be given a placement in adult psychiatry so that the transition to independent work as a specialist is facilitated.

ST doctors should play an active part in regular local further training meetings. The exchange of knowledge and experiences internationally is also recommended.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their specialties. The recommendations concern such issues as how specialist medical training can be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To master the handling of common and serious mental illnesses with emphasis on the major endemic illnesses	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar	
	Sitting-in	
	Theoretical studies	

Intermediate objective 2	Teaching methods	Follow-up
To be able to handle different mental illnesses	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar	
	Sitting-in	
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To be able to handle acute psychiatric conditions and be able to initially handle emergency psychiatric situations	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar	
	Sitting-in	
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To master psychopharmacological and electroconvulsive therapy and have an understanding of underlying mechanisms for the origin of mental illness and its treatment.	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar	
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To have an understanding of differential diagnostics between internal medicine and neurological or mental illnesses and to be able to initially handle somatic conditions in patients with mental illnesses	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar	
	Sitting-in	
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To be able to handle ordinary substance addictions and have an understanding of their comorbidity with internal medicine conditions and other mental illnesses	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar	
	Sitting-in	
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To have an understanding of neurodegenerative diseases and be able to handle mental illness in the elderly	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar	
	Sitting-in	
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To have an understanding of development-related mental illness and knowledge of the ways that child and adolescent psychiatry works and of deviant versus normal psychological and neurological development in the childhood years.	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar	
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To have an understanding of the theoretical basis for the different psychological treatment methods, to be able to evaluate suitable psychological methods for the treatment of different mental illnesses and to be able to handle patients by means of– psychological treatment methods	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To master the application of laws and statutes that regulate governance within the area of competence and to have an understanding of other legislation that is of relevance for psychiatry and also have knowledge of the organisation and duties of forensic psychiatry	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar	
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To have an understanding of cognitive functional disorders, their importance in the patient's care and treatment and to have an understanding of testing methods for these	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar	
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To have an understanding of the coordination and follow-up of patients over a long period of time.	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Seminar	
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin and to be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Health care teamwork under supervision	

Intermediate objective 14	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Instruction under supervision	

Intermediate objective 15	Teaching methods	Follow-up
To be capable of working continuously on a professional and medical ethical approach	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	
	Theoretical studies	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team and an understanding of one's own role in the organisation	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by current course leader
	Health care teamwork under supervision	

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management, and regulatory systems of health care	Course	Certificate of successfully completed course, issued by current course leader
	Theoretical studies	

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Course	Certificate of successfully completed course, issued by course leader
	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor
	Seminar	
	Large professional assembly	
	Theoretical studies	

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor

Intermediate objective 21	Teaching methods	Follow-up
To have an understanding of the factors determining health and other aspects of public health, as well as methods for promoting health and efforts to prevent illness	Course	Certificate of successfully completed course, issued by current course leader
	Seminar	
	Theoretical studies	

Forensic psychiatry

Introduction
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Introduction

On June 24, 2008, The National Board of Health and Welfare (Socialstyrelsen) decided to announce new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists of a general part with common provisions for all specialties and a specific part with all the descriptions of objectives. The description of objectives for the respective specialties should be understood against the background of the provisions in the general part.

In each description of objectives, there is a section headed 'Training structure', which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competences

Definition of area of competence

Forensic psychiatry is a medical specialty based on the field of psychiatry field and the legal control of mentally disturbed law-breakers. The aim of forensic psychiatry is to investigate, evaluate, diagnose, treat, habilitate or rehabilitate, and follow-up on mentally disturbed law-breakers. This includes an assessment of the risk of patients harming themselves or others, and how these risks should be managed. A central task in the forensic psychiatry specialty is analysing and managing the connection between mental disturbance, criminal tendencies, and social adaptation.

Forensic psychiatry is a branch specialty of the base specialty of psychiatry.

Competence requirements

Competence requirements for medical competence

Specialist competence in forensic psychiatry requires being able to perform forensic psychiatric evaluations of mentally disturbed law-breakers on behalf of the courts. It also requires being responsible for diagnostics, treatment, habilitation or rehabilitation, and follow-up of patients in forensic psychiatric care and correctional care. It is also necessary to be able to identify and manage situations that are important with regard to the risk over time of the patients or the people being examined harming themselves or others.

An understanding of the ethical and professional difficulties that ensue from working with patients who have been deprived of their liberty and are in compulsory care is also required. Knowledge of and skills in cooperating with the authorities and organisations needed for evaluation, treatment, and habilitation or rehabilitation of mentally disturbed law-breakers is also required.

Medical competence in accordance with the description of objectives for psychiatry is also required for specialist competence in forensic psychiatry.

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for the patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competences. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership distinguished by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

Specialist medical training in forensic psychiatry can begin before, during, or after specialist medical training in psychiatry and can be integrated with it.

Clinical service in both investigation and a forensic psychiatry unit providing care is the basis for specialist training in forensic psychiatry.

Investigative forensic psychiatry includes service at the investigation unit and active participation in the unit's investigation work. ST doctors should attend court proceedings.

In forensic psychiatric care, it is imperative that the prospective specialist serves in both in- and out-patient care, preferably at units with different security classifications. An important element in this work is participation in county administrative court negotiations and in meetings with municipalities and other care providers prior to leave of absence and discharges being granted. It is also important to formulate care plans, including risk and needs analyses.

It is also important for prospective specialists to gain practical experience in work with mentally disturbed law-breakers who are subject to care at open corrective training and prison establishments. This may take place in the form of auscultation or as clinical service.

The sequence between, and the possibility of integrating, investigative and care unit service can be organised on the basis of local conditions. The same applies to service at non-institutional authorities and prison establishments.

ST doctors should actively participate in training programmes that are threaded throughout training with instruction in the different areas concerning forensic psychiatry. ST doctors should also be given the opportunity for study visits and auscultations abroad during the training period.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their specialties. The recommendations concern such issues as how specialist medical training can be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To master the carrying out of forensic psychiatric investigations on behalf of courts	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 2	Teaching methods	Follow-up
To have an understanding of the connection between the degree of mental disturbance, transgressions of the law and the risk of reoffending	Seminar	
	Intraprofessional group reflection	
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To have an understanding of deviant and normal development during the childhood years, particularly with regard to norm transgressions and offences	Seminar	
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To have an understanding of criminology and criminal empires	Course	Certificate of successfully completed course, issued by course leader
	Seminar	

Intermediate objective 5	Teaching methods	Follow-up
To master the application of laws and statutes that regulate governance within the area of competence and to have an understanding of other legislation that is of relevance for psychiatry	Clinical service under supervision in a unit that handles these issues	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar	
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To master forensic psychiatric care, both institutional and non-institutional	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 7	Teaching methods	Follow-up
To master the identification and management of static and dynamic factors that are importance for the risk over a period of time of harming oneself and others	Clinical service under supervision in a unit that handles these issues	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To have an understanding of the different roles and functions of forensic psychiatry in relation to patients or inmates	Clinical service under supervision in a unit that handles these issues	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Seminar	

Intermediate objective 9	Teaching methods	Follow-up
To have an understanding of professional approach towards mentally disturbed law-breakers	Clinical service under supervision in a unit that handles these issues	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Seminar	

Intermediate objective 10	Teaching methods	Follow-up
To have an understanding of correctional care's organisation, regulatory systems and conditions for providing psychiatric care	Clinical service under supervision in a unit where such operations are practised or auscultation under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor or Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 11	Teaching methods	Follow-up
To have an understanding of consultation work with regard to psychiatry, correctional care, social services and other current care providers	Clinical service under supervision in a unit where such operations are practised or auscultation under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor or certificate of approved auscultation and competence achieved, issued by current mentor

Intermediate objective 12	Teaching methods	Follow-up
To be able to handle ethical problems that are linked to correctional treatment and forensic psychiatric work	Clinical service under supervision in a unit that handles these issues	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Intraprofessional group reflection	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin and to be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Health care teamwork under supervision	

Intermediate objective 14	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Instruction under supervision	

Intermediate objective 15	Teaching methods	Follow-up
To be capable of working continuously on a professional and medical ethical approach	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team and to have an understanding of one's individual role in the organisation	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Health care teamwork under supervision	

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management, and regulatory systems of health care	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Course	Certificate of successfully completed course, issued by course leader
	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor
	Seminar	
	Large professional assembly	
	Theoretical studies	

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor

Intermediate objective 21	Teaching methods	Follow-up
To have an understanding of the factors determining health and other aspects of public health, as well as methods for promoting health and efforts to prevent illness	Course	Certificate of successfully completed course, issued by course leader
	Seminar	

Child and adolescent psychiatry

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In each description of objectives, there is a section headed 'Training structure', which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

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the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competences

Definition of area of competence

The specialty of child and adolescent psychiatry is a multidisciplinary medical discipline in which biological, psychological, pedagogic, and social knowledge is integrated. It is the specialty that involves an understanding of and skills in recognising, investigating, diagnosing, treating, and following up on, as well as preventing, mental illness and disturbances in children and young people. The specialty also involves a detailed understanding of how psychopathological symptoms in young people are affected by age, gender, development level, and physical health, as well as by psychological and social factors. The specialty involves the child and adolescent psychiatric conditions described in international psychiatric classification systems and which are combined with serious suffering or a serious prognosis. The area of competence includes children and young people as well as their families.

Competence requirements

Competence requirements for medical competence

Specialist competence in child and adolescent psychiatry requires being capable of handling relevant acute conditions, being capable of evaluating and prioritising the need for care, and being capable of investigating, diagnosing, treating, and following up in the area of common and serious conditions.

A capability of distinguishing between normal and deviant development during the childhood years, and of adapting conversations and communications in connection with care so that optimum consideration is taken of the young patient's circumstances and needs, are also required.

Specialist competence also requires knowledge and skills in pharmacological treatment, an understanding of psychological and psychotherapeutic treatment, an understanding of child and adolescent psychiatry's cooperation with other civil authorities, and an understanding of and skills in the laws that affect the physical health and welfare of children and young people.

Specialist competence also requires an understanding of the comorbidity between drug abuse and child and adolescent psychiatric conditions, and an understanding of relevant adult psychiatry, paediatrics, and forensic psychiatry.

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for the patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competences. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership distinguished by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

The main training should begin with service at a child and adolescent psychiatric unit. Cross-training should then follow, through service in the areas of child, adolescent and adult psychiatry The specialist training should be concluded with service at a child and adolescent psychiatric unit to facilitate the transition to independent work as a specialist.

A course in psychotherapy where ST doctors can acquire an understanding of psychological treatment methods is very important. During the course, it is important that theory and practical skills are integrated under the supervision of a licensed psychotherapist who is a trained mentor. The course should be alternated with clinical service so that ST doctors can apply the knowledge in their everyday activities as doctors.

During the main training, a longer, uninterrupted period of service will be of great importance. This is so that ST doctors can be given good opportunities to follow up patients over a longer period of time. ST doctors should also be assured of extensive experience in acute care and child and adolescent psychiatric in-patient care during training.

In its entirety, the training should give ST doctors the opportunity to acquire both broad and in-depth competence. The training should, therefore, be supplemented with service at a university clinic or the equivalent where appropriate.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their specialties. The recommendations concern such issues as how specialist medical training can be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To master evaluation and handling of acute child and adolescent psychiatric conditions	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar	
	Sitting-in	
	Theoretical studies	

Intermediate objective 2	Teaching methods	Follow-up
To master evaluation and prioritisation of children and young people's psychiatric care needs in light of biological, psychological and social factors that lead to an increased risk of mental illness	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Seminar	
	Sitting-in	
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To master investigation, diagnostics, medical treatment and follow-up of common and serious child and adolescent psychiatric conditions	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar	
	Diagnostics and treatment conference	
	Sitting-in	
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To master evaluation of deviant and normal development during the childhood years To master the capability of being able to converse and communicate with children and young people, taking account of their needs and development level	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar	
	Sitting-in	
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To master pharmacological treatment of child and adolescent psychiatric conditions	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar	
	Sitting-in	
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To have an understanding of psychological and psychotherapeutic treatment methods with regard to child and adolescent psychiatric conditions	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To have an understanding of child and adolescent psychiatry's cooperation with other civil authorities	Clinical service under supervision in a unit that handles these issues	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Health care teamwork under supervision	
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To have an understanding of legislation on medical care and treatment, social services and handicapped care relevant to the specialty and of the application of this legislation To master handling in accordance with the Compulsory Psychiatric Care Act	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar	
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To have an understanding of drug abuse and its comorbidity with child and adolescent psychiatric conditions	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar	
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To have an understanding of psychiatric conditions at an adult age, particularly in young adults	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar	
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To have an understanding of paediatrics, particularly paediatric neurology and habilitation	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar	
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To have an understanding of forensic psychiatry's organisation and duties	Auscultation under supervision in a unit where such operations are practised	
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin and to be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Health care teamwork under supervision	

Intermediate objective 14	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Instruction under supervision	

Intermediate objective 15	Teaching methods	Follow-up
To be capable of working continuously on a professional and medical ethical approaches	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team and to have an understanding of one's individual role in the organisation	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Health care teamwork under supervision	

Intermediate objective 18	Teaching methods	Follow-up
To have understanding of the organisation, management, and regulatory systems of health care	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Course	Certificate of successfully completed course, issued by current mentor
	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current course leader
	Seminar	
	Large professional assembly	
	Theoretical studies	

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor

Intermediate objective 21	Teaching methods	Follow-up
To have an understanding of the factors determining health and other aspects of public health, as well as methods for promoting health and efforts to prevent illness	Seminar	
	Theoretical studies	

Specialties in radiology

Radiology

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Introduction

On June 24, 2008, The National Board of Health and Welfare (Socialstyrelsen) decided to announce new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists of a general part with common provisions for all specialties and a specific part with all the descriptions of objectives. The description of objectives for the respective specialties should be understood against the background of the provisions in the general part.

In each description of objectives, there is a section headed 'Training structure', which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competences

Definition of area of competence

Radiology is a clinical specialty that diagnoses, divides into stages, forecasts, evaluates therapy, and treats or rules out diseases by means of imaging morphology and technical methods. The result of the work is communicated through clinically responsible doctors and affects the handling of the patient.

The area of competence includes the main responsibility for how the methods involved in the specialty are used in all organ systems. The specialty plays a crucial advisory role in how investigations employing these methods will be carried out.

Work in radiology takes place in cooperation with, by and large, all other specialties.

Radiology involves understanding the originating mechanisms and course of diseases and applying this understanding using the methods and techniques involved in radiology.

The area of competence also includes describing and understanding the methods and techniques involved in radiology, using a scientific approach, and being intimate with its strengths, limitations, risks and development. It also includes a responsibility for training co-workers both in and outside of the area of radiology in the strengths, limitations and risks of the method.

Radiology is the base specialty for the branch specialties of clinical physiology, neuroradiology, and nuclear medicine.

Competence requirements

Competence requirements for medical competence

Specialist competence in radiology, requires being able to evaluate and document the results of investigations using the most common radiology analyses in the areas of clinical radiology, clinical physiology, neuroradiology, and nuclear medicine; being familiar with how they are performed, and having an understanding of treatment and intervention within the area. Specialists must be able to document and communicate knowledge, results and evaluations, and master medical image processing in the field of knowledge. Being able to initially handle common diagnostic and therapeutic issues in order to decide which methods in the field of knowledge are optimal and, in addition, being able to prioritise patients and investigations on the basis of medical benefits, safety and the degree of urgency is required. Specialists must know how investigation results and therapy can influence medical handling and its consequences for the individual patient and for society. They must also have an understanding of the risks of the diagnostic and therapeutic methods involved in the field of knowledge, be familiar with phys-

ics related to the area, including radiation physics and protection against radiation, and also have knowledge of relevant legislation that touches upon the operations. Also required is an understanding of physical, technical, mathematical, and statistical principles with regard to the most common methods, of the strengths and weaknesses of the methods, and of medical and technical quality assurance of investigation data. It is necessary to master the anatomy, physiology and pathophysiology of relevance for radiology (intermediate objectives 1-6).

Specialist competence in radiology also requires the knowledge and skills in the radiology area of competence necessary to be able to independently practice the specialty. This involves theoretical knowledge and practical skills in existing investigative and treatment methods.

Mastering the most common radiology analyses and being able to initially handle other radiology examinations of the thorax, including the chest organs, abdominal organs, musculoskeletal system, nervous system including the spine, the head and throat organs, the pelvic and urogenital organs and the vascular system, and examinations in the field of general acute operations in children and adults within the area of competence, are also necessary for specialist competence in radiology.

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for the patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competences. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership distinguished by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

In order for the prospective specialist to be given the opportunity during training to develop in all the intermediate objectives, it is essential that the training can be carried out both at university hospitals or similar units that have extensive and specialised activities, and at units with more general activities. It is important that the specialist training provides logical, clear and continuous professional development with sufficiently long uninterrupted periods of training in the respective units. In order to provide the opportunity to obtain knowledge in a structured fashion, the placement at a university hospital should be for a continuous period of time. Cooperation with other clinical specialties is necessary and, for this reason, simultaneous additional training through service in another specialty closely involved with patients should be carried out. It is of great importance that the prospective specialist be trained in quality and development work. It is also of the greatest importance that research and development work and participation in instruction be included in the training.

The training should be based on the practical application of theoretical knowledge that has been obtained. The theoretical training should consist of both private studies and obtaining knowledge externally. ST doctors should, therefore, be allowed to take part in national and international courses and conferences during training. In order to be able to build up applied knowledge within the area of radiology on a theoretical basis and create conditions for an evidence-based working method, it is also imperative that, in relation to clinical work, advanced theoretical training take place in direct connection with practical work.

The training should be planned in such a way that a basic understanding of the methods involved in radiology and the most common illnesses in both elective and acute activities are featured at an early stage of the training in the common competence base.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their specialties. The recommendations concern such issues as how specialist medical training can be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To be able to evaluate and document the result of investigations using the most common radiology analyses and have an understanding of treatment and intervention that occurs within the radiology field of knowledge	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 2	Teaching methods	Follow-up
To be able to initially handle common diagnostic and therapeutic issues in order to decide which methods in the field of knowledge are optimal and have an understanding of risks in the diagnostic and therapeutic methods involved in the field of knowledge To have an understanding of prioritising patients and investigations on the basis of medical benefits, safety and the degree of urgency	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To have an understanding of how radiology investigation results and therapeutic operations may affect medical handling and its consequences for the individual patient and to master documentation and communication in the field of knowledge of knowledge, results and evaluation.	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To have an understanding of how common investigations are carried out to have knowledge of how other investigations and therapeutic measures in the field of knowledge are carried out and have an understanding of medical and technical quality assurance of investigation data To master medical image processing in the area of radiology	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To master anatomy, physiology and pathophysiology relevant to radiology	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 6	**Teaching methods**	**Follow-up**
To have an understanding of physical, technical, mathematical and statistical principles regarding the most common methods in the area of radiology, as well as their strengths and weaknesses and have an understanding of the physics related to the area of competence, including radiation physics and protection against radiation To have knowledge of relevant legislation regarding radiology	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 7	**Teaching methods**	**Follow-up**
To master the most common investigations and be able to initially handle other investigations of the thorax including the chest organs of children and adults	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 8	**Teaching methods**	**Follow-up**
To master the most common investigations and be able to initially handle other investigations of the abdominal organs of children and adults	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To master the most common investigations and be able to initially handle other investigations of the musculoskeletal system of children and adults	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To master the most common investigations and be able to initially handle other investigations of the nervous system, including the spine and head and throat organs, of children and adults	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To master the most common investigations and be able to initially handle investigations within the pelvic and urogenital organs and vascular system of children and adults	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To master the most common investigations and be able to initially handle other investigations in the area of acute activity involving children and adults	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Large professional assembly	
	Diagnostics and treatment conference	

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Instruction under supervision	
	Large professional assembly	
	Diagnostics and treatment conference	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	
	Large professional assembly	
	Diagnostics and treatment conference	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading in collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor Clinical service under su-
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Diagnostics and treatment conference	

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management, and regulatory systems of health care	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor
	Large professional assembly	
	Diagnostics and treatment conference	

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor
	Large professional assembly	
	Diagnostics and treatment conference	

Neuroradiology

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Introduction

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In each description of objectives, there is a section headed 'Training structure', which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competences

Definition of area of competence

Neuroradiology is a clinical specialty that diagnoses, divides into stages, forecasts, evaluates therapy, and treats diseases of the central nervous system and ear, nose and throat area in children and adults by means of imaging morphology and technology methods. The result of this work is communicated through clinically responsible doctors and affects the handling of the patient. The neuroradiology area of competence involves the main responsibility for how the specialty's methods are used in the brain, back, head, and throat, as well as competence in being a central adviser as to how neuroradiological investigations are carried out. The work is done in cooperation with specialists in many other specialties.

The clinical neuroradiology area of competence includes knowledge and an understanding of the originating mechanisms and course of diseases, and of how this understanding is applied in work using the methods and techniques of neuroradiology.

The neuroradiology area of competence also includes understanding and mastering the methods and techniques of the specialty, and being familiar with their development, strengths, limitations, and risks. Finally, the clinical neuroradiology area of competence includes training specialists and prospective specialists in other specialties in the strengths, limitations and risks of neuroradiological methods.

Neuroradiology is a branch specialty of the base specialty of radiology.

Competence requirements

Competence requirements for medical competence

Specialist competence in neuroradiology requires a fundamental understanding of and skills in the field of neuroradiology, which means being able to individually handle, evaluate and provide advice on the most common diagnostic neuroradiological methods. An understanding of existing therapeutic neuro-radiological methods, their indications, limitations, risks, and complications is also required.

Specialist competence in neuroradiology, also requires being able to evaluate and document the results of investigations using the most common radiology analyses in the areas of clinical radiology, clinical physiology, neuroradiology and nuclear medicine, and being familiar with how they are performed; and also having an understanding of treatment and intervention within the area. It is necessary to be able to document and communicate knowledge, results and evaluations and master medical image processing in the field of knowledge. Being able to handle common diagnostic and therapeutic issues in order to decide which methods in the field of knowledge are

optimal and, in addition, being able to prioritise patients and investigations on the basis of medical benefits, safety and the degree of urgency is also required. It is necessary to know how examination results and therapy can influence medical handling, and their consequences for the individual patient and for society. It is also necessary to have an understanding of the risks of the diagnostic and therapeutic methods involved in the field of knowledge, be familiar with physics related to the area including radiation physics and protection against radiation, and also to have knowledge of relevant legislation touching on the activity. It is necessary to have an understanding of physical, technical, mathematical and statistical principles with regard to the most common methods, of the strengths and weaknesses of the methods, and of medical and technical quality assurance of investigation data. It is necessary to master anatomy, physiology and pathophysiology of relevance for radiology (intermediate objectives 1-6).

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for the patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competences. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership distinguished by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous

systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

There is basically a great deal of freedom regarding the reciprocal arrangement of training elements in radiology and neuroradiology and the specialised training in neuroradiology may, in principle, take place during all parts of the training period. Specialist medical training in neuroradiology can, therefore, begin before, during, or after specialist medical training in radiology and can be integrated with it.

The specific service in neuroradiology should be carried out at neuroradiological units at university hospitals that provide care to adults and children in the areas of neurology, neurosurgery and otorhinolaryngology. Clinical training at another unit is imperative in order to ensure continuous contact with other specialties in those cases where this kind of training cooperation is a prerequisite for the scope and quality of the training. For cooperation with other clinical specialties, it is important to have cross-training through service in another specialty that is of relevance for the training, primarily in one or more of the following specialties: clinical neurophysiology, neurology and neurosurgery. It is also important that the prospective specialist can be trained in quality and development work. It is also of the greatest importance that research and development work and participation in instruction can form part of the training.

Training should be based on the practical application of the theoretical knowledge obtained. Theoretical training should consist of both private studies and obtaining knowledge externally. ST doctors should, therefore, be given the opportunity to take part in national and international courses and conferences during training. These courses in clinical neuroradiology and also theoretical advanced private studies should, if possible, be arranged in direct connection with the current placement. In order for the training to achieve satisfactory depth, the training period should be utilised in such a way that ST doctors are given the opportunity for a sufficiently long continuous period in each defined work operation.

During the training period, time should be set aside for individual work that may include cross-training through service in other clinical or theoretical specialties with a link to neuroscientific subjects or private research work.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their specialties. The recommendations concern such issues as how specialist medical training can be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To be able to evaluate and document the result of investigations using the most common radiology analyses and have an understanding of treatment and intervention that occurs within the radiology field of knowledge	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by current mentor
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 2	Teaching methods	Follow-up
To be able to initially handle common diagnostic and therapeutic issues in order to decide which methods in the field of knowledge are optimal and have an understanding of risks in the diagnostic and therapeutic methods involved in the field of knowledge To have an understanding of prioritising patients and investigations on the basis of medical benefits, safety and the degree of urgency	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by current mentor
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To have an understanding of how radiology investigation results and therapeutic operations may affect medical handling and its consequences for the individual patient and to master documentation and communication in the field of knowledge of knowledge, results and evaluation.	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by current mentor
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To have an understanding of how common investigations are carried out and to have knowledge of how other investigations and therapeutic measures in the field of knowledge are carried out and have an understanding of medical and technical quality assurance of investigation data To master medical image processing in the area of radiology	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by current mentor
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To master the anatomy, physiology and pathophysiology relevant to radiology	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by current mentor
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To have an understanding of physical, technical, mathematical and statistical principles with regard to the most common methods in radiology and their strengths and weaknesses and also have an understanding of physics related to the area of competence, including radiation physics and protection against radiation. To have knowledge of relevant legislation regarding radiology	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by current mentor
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To master neuroanatomy and have an understanding of neuropathology and neurophysiology To have an understanding of the most common relevant diseases in related clinical specialties	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by current mentor
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To have an understanding of diseases, injuries and deformities in the brain, head, throat, back and spinal marrow of adults and children	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by current mentor
	Seminar	
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To master neuroradiological diagnostics and its importance in the handling and care of the patient and also be able to handle and make decisions in matters of a medical ethical nature in clinical neuroradiology	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by current mentor
	Seminar	
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To master neuroradiological diagnostics in post-therapeutic conditions and be able to handle follow-up treatment. To be able to evaluate surgical and medical treatment results, including interventional neuroradiology and be able to handle diagnostics and treatment complications	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by current mentor
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To master neuroradiological techniques by having an understanding of indications, counterindications and limitations, complications and side effects of the most common diagnostic methods and have knowledge of similar aspects in interventional and functional neuroradiology	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by current mentor
	Instruction under supervision	
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To master special paediatric applications in neuroradiology, particularly with regard to the development of the brain, child abuse and protection against radiation	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by current mentor
	Diagnostics and treatment conference	
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Large professional assembly	
	Diagnostics and treatment conference	

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by current mentor
	Instruction under supervision	
	Large professional assembly	
	Diagnostics and treatment conference	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	
	Large professional assembly	
	Diagnostics and treatment conference	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading in collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Diagnostics and treatment conference	

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management, and regulatory systems of health care	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor
	Large professional assembly	
	Diagnostics and treatment conference	

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor
	Large professional assembly	
	Diagnostics and treatment conference	

Nuclear medicine

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Introduction

On June 24, 2008, The National Board of Health and Welfare (Socialstyrelsen) decided to announce new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists of a general part with common provisions for all specialties and a specific part with all the descriptions of objectives. The description of objectives for the respective specialties should be understood against the background of the provisions in the general part.

In each description of objectives, there is a section headed 'Training structure', which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competences

Definition of area of competence

Nuclear medicine is a clinical specialty in which one monitors physiological and pathophysiological processes in all organs and organ systems by means of special detectors after adding radiopharmaceuticals. This is in order to diagnose, divide into stages, forecast and treat or rule out diseases and evaluate therapy. Biochemical processes can be visualised at a cellular and subcellular level and pathological processes can be established before they manifest themselves in morphological changes.

The results are communicated through clinically responsible doctors and form the basis for the handling of the patient. This work is carried out in close cooperation with other specialties.

The competence also covers how all methods involved in the specialty are used in all organ systems and advice on how these methods should be investigated. It also covers responsibility for developing and managing scientific and quality work in the specialty.

Nuclear medicine is a branch specialty of the base specialty of radiology.

Competence requirements

Competence requirements for medical competence

Specialist competence in nuclear medicine requires having an understanding of and the skills in the nuclear medicine area of competence necessary to be able to independently practice the specialty. This involves broad theoretical knowledge and practical skills in the investigative and treatment methods available in nuclear medicine. An understanding of the physics related to the area, including radiation protection, and legislation relevant to the area is also required.

Specialist competence in nuclear medicine also requires being able to evaluate and document the results of investigations using the most common radiology analyses in the areas of clinical radiology, clinical physiology, neuroradiology and nuclear medicine, being familiar with how they are performed, and also having an understanding of treatment and intervention within the area. Specialists must be able to document and communicate knowledge, results and evaluations and master medical image processing in the field of knowledge. They must also be able to handle common diagnostic and therapeutic issues in order to decide which methods in the field of knowledge are optimal and, in addition, be able to prioritise patients and investigations on the basis of medical benefits, safety and the degree of urgency. Specialists must know how investigation results and therapy can influence medical handling, and their consequences for the individual patient and for society. They must also have an understanding of the risks of the diagnostic and therapeutic methods involved in the field of knowledge, be

familiar with physics related to the area, including radiation physics and protection against radiation, and have knowledge of relevant legislation that affects the activity. Specialists must have an understanding of physical, technical, mathematical and statistical principles with regard to the most common methods, of the strengths and weaknesses of the methods and of medical and technical quality assurance of investigation data. They must also master anatomy, physiology and pathophysiology of relevance for radiology (intermediate objectives 1-6).

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for the patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competences. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership distinguished by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

Specialist medical training in nuclear medicine can begin before, during, or after specialist medical training in radiology and can be integrated with it.

In order for prospective specialists to be given the opportunity during training to develop in all the intermediate objectives, it is essential that the training be carried out both at university hospitals or similar units that have extensive and specialised activities, and at units with more general activities. It is important that the specialist training involves logical, clear and continuous professional development with sufficiently long uninterrupted periods of training in the respective units. Cooperation with other clinical specialties is necessary and simultaneous additional training within another specialty that is relevant to the training should, therefore, be carried out. The prospective specialist should be trained in quality and development work and it is of the utmost importance that research and development work and participation in instruction can form part of the training.

In order to be able to base the applied knowledge of nuclear medicine in an evidence-based working method, it is important that, in relation to clinical work, advanced theory be included in direct connection with practical work. Theoretical training should consist of both private studies and obtaining knowledge externally. ST doctors should, therefore, be given the opportunity to take part in national and international courses and conferences during training.

A great deal of scope can be given to individually adapted requirements regarding where in the training the various training objectives are carried out.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their specialties. The recommendations concern such issues as how specialist medical training can be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To be able to evaluate and document the result of investigations using the most common radiology analyses and have an understanding of treatment and intervention that occurs within the radiology field of knowledge	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by current mentor
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 2	Teaching methods	Follow-up
To be able to initially handle common diagnostic and therapeutic issues in order to decide which methods in the field of knowledge are optimal and have an understanding of risks in the diagnostic and therapeutic methods involved in the field of knowledge To have an understanding of prioritising patients and investigations on the basis of medical benefits, safety and the degree of urgency	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by current mentor
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To have an understanding of how radiology investigation results and therapeutic operations may affect medical handling and its consequences for the individual patient and to master documentation and communication in the field of knowledge of knowledge, results and evaluation.	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by current mentor
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To have an understanding of how common investigations and to have knowledge of how other investigations and therapeutic measures in the field of knowledge are carried out and have an understanding of medical and technical quality assurance of investigation data To master medical image processing in the area of radiology	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by current mentor
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To master anatomy, physiology and pathophysiology relevant to radiology	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by current mentor
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To have an understanding of physical, technical, mathematical and statistical principles with regard to the most common methods in radiology and their strengths and weaknesses and also have an understanding of physics related to the field of knowledge, including radiation physics and protection against radiation. To have knowledge of relevant legislation regarding radiology	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by current mentor
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To master the most common investigations and be able to initially handle other nuclear medicine investigations of the thorax including the chest organs of children and adults	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by current mentor
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To master the most common investigations and be able to initially handle other nuclear medicine investigations of the abdomen, pelvis and urogenital organs of children and adults	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by current mentor
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To master the most common investigations and be able to initially handle other nuclear medicine investigations of the musculoskeletal system of children and adults	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by current mentor
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To master the most common investigations and be able to initially handle other nuclear medicine investigations of the nervous system, including the spine and ear, nose and throat organs, of children and adults	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by current mentor
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To master the most common investigations and be able to initially handle other nuclear medicine therapeutic measures with regard to children and adults	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by current mentor
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To have an understanding of physical, technical, mathematical and statistical principles with regard to the most common methods and their strengths and weaknesses and have an understanding of nuclear medicine, including radiation physics and protection against radiation. To have an understanding of relevant legislation affecting nuclear medicine	Course	Certificate of successfully completed course, issued by current mentor
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Large professional assembly	
	Diagnostics and treatment conference	

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by current mentor
	Instruction under supervision	
	Large professional assembly	
	Diagnostics and treatment conference	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	
	Large professional assembly	
	Diagnostics and treatment conference	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading in collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Diagnostics and treatment conference	

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management, and regulatory systems of health care	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor
	Large professional assembly	
	Diagnostics and treatment conference	

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor
	Large professional assembly	
	Diagnostics and treatment conference	

Clinical physiology

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Introduction

On June 24, 2008, The National Board of Health and Welfare (Socialstyrelsen) decided to announce new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists of a general part with common provisions for all specialties and a specific part with all the descriptions of objectives. The description of objectives for the respective specialties should be understood against the background of the provisions in the general part.

In each description of objectives, there is a section headed 'Training structure', which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competences

Definition of area of competence

Clinical physiology is a clinical specialty in which the physiological and pathophysiological course of the patient's illness is measured, analysed and evaluated in an integrative and scientific manner. This is done using radiology methods for diagnostics, forecasting, and treatment purposes. The core of any clinical physiological evaluation and assessment of the investigation results is observing dynamics and periods of time. The common characteristic of the work is problem-solving and it takes place in close cooperation with other specialties. The specialty of clinical physiology also includes an understanding of measuring equipment and its underlying physical, technical, mathematical and statistical principles. Methods development and scientific problem-solving with the patient at the centre is also part of the area of competence.

Clinical physiology is a branch specialty of the base specialty of radiology.

Competence requirements

Competence requirements for medical competence

Specialist competence in clinical physiology requires understanding and skills in order to master work involving the most common investigations in clinical physiology. This involves mastering indications and initial prioritisation in the most common examinations in clinical physiology and also having an understanding of evaluating the examination results. In addition, an understanding of treatment and intervention in the field of knowledge is required. An understanding of the practical execution of the most common radiology analyses in clinical physiology is also required, along with an understanding of methods, primarily with the focus on the advantages and limitations of the analyses, which leads to an understanding of medical benefits and risks.

Specialist competence in clinical physiology also requires an understanding of the medical handling, care and treatment of the patients undergoing investigations in clinical physiology, which provides a perspective of what consequences the results of the investigation will have for the patient. Specialists should also master documenting and communicating the results of examinations in a suitable and medically correct manner and to be able to put the results into a physiological and pathophysiological context and thereby provide a basis for the optimisation of the medical evaluation and the care of patients.

Specialist competence in clinical physiology also requires being able to evaluate and document the results of investigations using the most common

radiology analyses in the subject fields of radiology, clinical physiology, neuroradiology and nuclear medicine, being familiar with how they are performed, and also having an understanding of treatment and intervention within the area. Specialists must be able to document and communicate knowledge, results and evaluations and master medical image processing in the field of knowledge. They must also be able to handle common diagnostic and therapeutic issues in order to decide which methods in the field of knowledge are optimal and, in addition, they must be able to prioritise patients and investigations on the basis of medical benefits, safety and the degree of urgency. Specialists must know how examination results and therapy can influence medical handling, and their consequences for the individual patient and for society. They must also have an understanding of the risks of the diagnostic and therapeutic methods involved in the field of knowledge, to be familiar with physics related to the area including radiation physics and protection against radiation, and also have knowledge of relevant legislation that affects the activity. Specialists must have an understanding of physical, technical, mathematical and statistical principles with regard to the most common methods, of the strengths and weaknesses of the methods, and of medical and technical quality assurance of investigation data. They must master the anatomy, physiology and pathophysiology of relevance for radiology (intermediate objectives 1-6).

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for the patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing re-

spect for their professional knowledge and competences. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership distinguished by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

Specialist medical training in clinical physiology can begin before, during, or after specialist medical training in radiology and can be integrated with it.

Specialist training in clinical physiology should mainly be carried out through clinical service at units practicing clinical physiology, at units using clinical physiology skills, through theoretical studies, and through project-oriented work. The different training elements in the ST training in clinical physiology can be organised among themselves very flexibly.

The specialist training should be set out logically and professional development should, as far as possible, take place gradually and continually. In order for the training to be of a satisfactorily advanced level, sufficiently long and uninterrupted training periods should are desirable, and the clinical service should include a longer period of service at a university hospital. In order to acquire good proficiency in the field of knowledge, ST doctors should also be given placements in units that are particularly proficient and modern in specific areas, methodologically or regarding subject. Theoretical training elements should include regular in-depth theoretical training in connection with the clinical work, and also participation in national and international courses and conferences. It is desirable that courses and conferences are planned for suitable stages of the specialist training.

As a result of the nature of the specialty, where a critical and analytical working method is essential, ST doctors should carry out project work, where medical scientific work is chiefly recommended. This is also important due the rapid pace of development of methodology in radiology diagnostics. The project may also deal with other subject areas, such as quality de-

velopment, method development, patient safety work or organisation of health care.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their specialties. The recommendations concern such issues as how specialist medical training can be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To be able to evaluate and document the results of investigations using the most common radiology analyses and have an understanding of treatment and intervention that occurs within the radiology field of knowledge	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 2	Teaching methods	Follow-up
To initially handle common diagnostic and therapeutic issues in order to decide which methods in the area of knowledge are optimal and have an understanding of risks in the diagnostic and therapeutic methods involved in the field of knowledge To have an understanding of prioritising patients and investigations on the basis of medical benefits, safety and the degree of urgency	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To have an understanding of how radiology investigation results and therapeutic operations may affect medical handling and its consequences for the individual patient and to master documentation and communication in the field of knowledge of knowledge, results and evaluation.	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To have an understanding of how common investigations are carried out and to have knowledge of how other investigations and therapeutic measures in the field of knowledge are carried out and have an understanding of medical and technical quality assurance of investigation data To master medical image processing in the area of radiology	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To master the anatomy, physiology and pathophysiology relevant to radiology	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To have an understanding of physical, technical, mathematical and statistical principles with regard to the most common methods in radiology and their strengths and weaknesses and also have an understanding of physics related to the field of knowledge, including radiation physics and protection against radiation. To have knowledge of relevant legislation regarding radiology	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To master the choice of methods within the clinical physiology area of competence for distinct diagnostic and therapeutic issues taking into account the methods' advantages, limitations and risks	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To be able to evaluate investigation results obtained through the most common medical imaging and analyses in clinical physiology and have knowledge of treatment and intervention in the field of knowledge.	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To master the practical execution of the most common radiology analyses in clinical physiology and have knowledge of the practical execution of other investigations in clinical physiology	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To master documentation of investigation results from the most common radiology analyses in clinical physiology and master communication of investigation results to the parties concerned	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To have an understanding of how diagnostics, intervention and therapy in clinical physiology can affect the medical care of the individual patient To master initial prioritisation of patients and investigations on the basis of medical benefits, safety and the degree of urgency	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To master anatomy, physiology and pathophysiology as well as an understanding of physics, technology, mathematics, statistics medical image processing and quality assurance of investigation results of relevance for clinical physiology	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Large professional assembly	
	Diagnostics and treatment conference	

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Instruction under supervision	
	Large professional assembly	
	Diagnostics and treatment conference	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	
	Large professional assembly	
	Diagnostics and treatment conference	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading in collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Diagnostics and treatment conference	

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management, and regulatory systems of health care	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor
	Large professional assembly	
	Diagnostics and treatment conference	

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor
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Specialties in laboratory medicine

Clinical immunology and transfusion medicine

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Introduction

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In each description of objectives, there is a section headed 'Training structure' which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

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a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
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clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
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or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competence

Definition of area of competence

The specialty of clinical immunology and transfusion medicine encompasses laboratory diagnostics and therapy based on immunological principles. The area of competence covers all age groups and has broad interfaces with other medical specialties. The field of knowledge is linked to and dependent on research and development within this area.

Competence requirements

Competence requirements for medical competence

Specialist competence in clinical immunology and transfusion medicine requires knowledge and proficiency in being able to independently interpret and evaluate laboratory results, and handle treatments and investigations arising from various clinical issues within the field. A further requirement is the capability of guidance in clinical immunology and transfusion medicine, and for serving as a consultant regarding such issues across the entire medical field. This also includes the management of queries and contacts to do with donors of blood and other tissue.

More specifically, knowledge and proficiency in providing medical advice, in laboratory diagnostics, donor management, bloodletting, the production of components for haemotherapy, infection immunology, transplant, and immune modulation as well as therapeutic aphaeresis are required. The type of laboratory diagnostics in the requirement comprises blood group serology testing, diagnostics and follow-up of immunodeficiencies, autoimmunity, inflammations, and allergies, as well as transplant studies.

Competence requirements for communicative competence, leadership competence and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin, as well as blood donors. Contact must be characterised by empathy and trust, as well as respect for patients' right to information, influence, and participation in decisions. It must also be characterised by cooperation and sensitivity to patients' needs, wishes and right to self-determination, and must stimulate patients' commitment to and responsibility for their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competencies. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and an understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be able to mentor other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must have a capability for leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, financial and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

It is important that training and service be based at a unit within clinical immunology and transfusion medicine. In drawing up the training programme, comparable service time is to be scheduled within clinical immunology and transfusion medicine. Training should be planned in such a way that ST doctors are able to acquire essential knowledge and skills early on, so that he or she can handle emergencies as well as common issues. Service periods in the various areas of activity within the specialty should be continuous. Simultaneous additional training through courses designed for the specialist doctor target group will supplement this. It is appropriate for simultaneous additional training to be held at a patient care unit in close contact with clinical immunology and transfusion medicine operations.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	**Teaching methods**	**Follow-up**
To have an understanding of the structure and function of the immune system	Course	Certificate of successfully completed course, issued by course leader
	Seminar or large professional assembly	
	Theoretical studies	

Intermediate objective 2	**Teaching methods**	**Follow-up**
To master methods, testing and equipment for determining humoral, cellular, inflammatory and genetic parameters	Clinical service under super-vision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar or large professional assembly	
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To be able to handle laboratory testing and results relating to allergies	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Auscultation under supervision in a unit that handles such conditions or diagnostics and treatment conference	Certificate of successfully completed course, issued by course leader
	Course	
	Seminar or large professional assembly	
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To be able to handle laboratory testing and results relating to autoimmune conditions	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Auscultation under supervision in a unit that handles such conditions or diagnostics and treatment conference	
	Course	Certificate of successfully completed course, issued by course leader
	Seminar or large professional assembly	
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To be able to handle laboratory testing and results relating to immune deficiency and infection conditions	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Auscultation under supervision in a unit that handles such conditions or diagnostics and treatment conference	
	Course	Certificate of successfully completed course, issued by course leader
	Seminar or large professional assembly	
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To master reception and care of blood donors	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar or large professional assembly	
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To be able to handle transplant immunology investigations	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Auscultation under supervision in a unit that handles such conditions or diagnostics and treatment conference	
	Course	Certificate of successfully completed course, issued by course leader
	Seminar or large professional assembly	
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To master the collection, production, storage, control, and transfusion of components for haemotherapy, transplant, and immune modulation	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar or large professional assembly	
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To master analyses of immune haematology preceding transfusion and in pregnancy	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar or large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To master treatments using blood components and complications related to transfusion and transplant	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar or large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To master indications of therapeutic aphaeresis and other haemotherapeutic treatments	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar or large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To have an understanding of humoral and cellular immune modulated treatments including vaccinations	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Auscultation under supervision in a unit that handles such conditions or diagnostics and treatment conference	Certificate of successfully completed course, issued by course leader
	Course	
	Seminar or large professional assembly	
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin, and to be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 14	Teaching methods	Follow-up
To be capable of dialogue and open contact with blood donors	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Instruction under supervision	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management, and regulatory systems of health care	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor

Clinical bacteriology and virology

Introduction
Explanation of terms
General definition of competencies
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Medical competence
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Competence within medical science and quality work

Introduction

On June 24, 2008, The National Board of Health and Welfare (Socialstyrelsen) decided to issue new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists of a general part with common provisions for all specialties and a specific part with all the descriptions of objectives. The description of objectives for each specialty should be understood against the background of the provisions in the general part.

In each description of objectives, there is a section headed 'Training structure' which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competence

Definition of area of competence

The specialty of clinical bacteriology and virology encompasses fundamental knowledge about microbes that cause infectious diseases, the spread of microbes in the population, and the risks posed by microbes to the individual, the community and to health care. The specialty further encompasses fundamental knowledge of the genetics and taxonomy of microbes, and of the host's defence mechanisms. The specialty also includes knowledge about the immune system, mechanisms for antimicrobial treatment and the development of resistance, the protection and effect mechanisms of vaccines, and about normal flora.

The area of competence further includes working as a consultant, using and interpreting methods of diagnostic microbiology, communicating analysis results to clinically responsible doctors, providing advice on diagnostics, treatment and prevention of infectious diseases from a national, a European and a global perspective, following the health care services' prescriptions of antibiotics, antivirals and antimycotics, treating invasion disease, and monitoring, reporting on and drawing up strategies in the case of resistance development.

Other important parts of the area of competence include the identification and prevention of infections that spread within the health care services, infectious disease prevention and control in the local region and nationally, research and development in the areas of microbiology, infectious disease prevention and control and infection control, and teaching.

Competence requirements

Competence requirements for medical competence

Specialist competence in clinical bacteriology and virology requires knowledge about the pathogenesis of infectious diseases and their natural course, the genetics and taxonomy of microbes, microbial metabolism and replication, the host's defence mechanisms, mechanisms for antimicrobial treatment, the development of resistance in microbes, and the geno- and phenotyping of microbes.

The specialist competence further requires the ability to choose relevant microbiological analysis methods, on the basis of the patient's clinical symptoms, and the ability to interpret analysis results in the areas of clinical bacteriology, clinical virology, clinical mycology and clinical parasitology. Knowledge is also required of diagnostics of unusual infectious diseases, which is only offered at regional or national reference laboratories.

The specialist competence further requires knowledge about the management, treatment and prevention - including vaccination where possible - of common infectious diseases, opportunistic infections and health care-related infections. Knowledge of contact tracing of notifiable diseases is also required.

Finally, the specialist competence requires knowledge about the fundamental principles of microbiological diagnostics in accordance with current quality and accreditation norms, as well as knowledge about systematic evaluation and development of new analysis methods from a patient benefit perspective, and of analytical and statistical processing of analysis results.

Competence requirements for communicative competence, leadership competence and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for the patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competencies. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students. Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and an understanding of their own functions and roles in the organisation. Mentoring skills Doctors with specialist competence must be able to mentor other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must have a capability for leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, financial and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts as well as of methods for evidence-based medicine and critical examination of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for

promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

During the course of the specialist training programme, ST doctors should acquire a broad knowledge of the area of microbiology. This is achieved by means of clinical service at units practising clinical bacteriology, clinical virology, clinical parasitology, clinical mycology, infectious disease prevention and control, and infection control. Placements should be planned such that all diagnostics areas in the description of objectives for the specialty are met, but the emphasis should be on clinical bacteriology and virology, divided into essentially equal parts, and on infection control.

Within the framework of the specialist training programme, ST doctors should have some opportunity for advanced studies in one of the following areas: clinical bacteriology, clinical virology, clinical mycology and clinical parasitology. ST doctors should also acquire knowledge about the management, diagnostics and treatment of patients with common infectious diseases and opportunistic infectious diseases during the specialist training programme. This is achieved by means of clinical service and consultancy at clinics where frequent contact with such patients occur.

Early on in the training, emphasis should be on a basic introduction to the elements common to all aspects of the specialty, such as the taking of specimens, logistics, quality assurance and routine methods for the determination of common microbiological agents. When ST doctors are placed in the various laboratory units, great importance should be attached to the choice of relevant analysis methods based on the patient's clinical symptoms, the registering of methods results, and the interpretation of the clinical significance of obtained analysis results. When necessary, a risk assessment should also be made based on obtained results.

Around the middle of the specialist training programme, ST doctors should be offered service in a microbiology laboratory at a university clinic, or in a reference laboratory if the local unit is unable to offer complete training in clinical bacteriology, clinical virology, clinical mycology or clinical parasitology. In order to achieve a breadth of knowledge, ST doctors should also pursue advanced studies through service or auscultation in a laboratory that deals with rare diagnostics and diagnoses of rare infectious diseases caused by bacteriological, virological, mycological and parasitological agents requiring biological safety level 3 and possibly 4.

During the specialist training programme, it is important that ST doctors undergo simultaneous additional training through service in infection or another knowledge area with frequent patient contact and infection issues. Additionally, in parallel with the whole specialist training programme, ST doctors should regularly participate in clinical consultancy at different types of units that handle patients with infectious diseases. ST doctors should also receive training in infectious disease prevention and control, and infection control, through clinical service in an infectious disease unit and an infection control unit.

It is appropriate to obtain knowledge about the pathogenesis and natural course of infectious diseases, the biology and characteristics of micro-organisms and their mechanisms for dealing with antimicrobial substances, the theoretical background to microbiological analysis methods, national guidelines on management and treatment of infectious diseases, and care programmes about infectious diseases, as well as existing statutes and laws, through courses and theoretical studies.

ST doctors should further be provided the opportunity to practice teaching. ST doctors should also carry out scientific work under supervision. This should be begun early on in specialist medical training. Additionally, ST doctors should be offered leadership training, and supervision training, in order to be able to lead teamwork as well as the medical, clinical and financial work at a microbiology laboratory.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	**Teaching methods**	**Follow-up**
To master the knowledge area of infectious diseases, their pathogenesis, natural course and diagnostics	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 2	**Teaching methods**	**Follow-up**
To master the knowledge area of microbe genetics and taxonomy, microbial metabolism and replication, the host's defence mechanisms including the immune system, mechanisms for antimicrobial treatment and the development of resistance, and the possibility of prevention by means of vaccination	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 3	**Teaching methods**	**Follow-up**
To master the choice of analysis method for culture, molecular biology methodology, morphological determination, immunological methodology and tests for typing and contact tracing, as well as to master the interpretation of analysis results for diagnostics of medically relevant bacterial infections	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To master the choice of analysis method for culture, molecular biology methodology, morphological determination, immunological methodology and tests for typing and contact tracing, as well as to master the interpretation of analysis results for diagnostics of medically relevant viral infections	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To master the choice of analysis method for culture, molecular biology methodology, morphological determination, immunological methodology and tests for typing and contact tracing, as well as to master the interpretation of analysis results for diagnostics of medically relevant parasitic infections	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To master the choice of analysis method for culture, molecular biology methodology, morphological determination, immunological methodology and tests for typing and contact tracing, as well as to master the interpretation of analysis results for diagnostics of medically relevant fungal infections	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To master effects mechanisms for antimicrobial treatment and methods for determining the resistance of microbes	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To master the fundamental principles of microbiological diagnostics in accordance with current quality norms To master systematic evaluation and development of new analysis methods from a patient benefit perspective To master statistical processing of analysis results	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To have an understanding of unusual microbiological analyses at reference laboratories	Clinical service under supervision in a unit where such operations are practised or auscultation under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor or certificate of successfully completed auscultation and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To master principles of prevention of health care-related infections To master management of occurring health care-related infections	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To master principles of infectious disease prevention and control, including notifiable diseases in the Communicable Diseases Act To have knowledge of infection epidemiology	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To master diagnostics and be able to handle investigation and treatment of common and opportunistic infectious diseases	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin, and to have the ability to communicate, both in writing and orally, with other doctors, co-workers and students, as well as with various civil authorities	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 14	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 15	Teaching methods	Follow-up
To be capable of making independent decisions in matters of medical ethics	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management, and regulatory systems of health care	Course	Certificate of successfully completed course, issued by course leader

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor
	Theoretical studies	

Intermediate objective 21	Teaching methods	Follow-up
To have an understanding of methods for the review of scientific information	Large professional assembly	
	Theoretical studies	

Clinical chemistry

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Introduction

On June 24, 2008, The National Board of Health and Welfare (Socialstyrelsen) decided to issue new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists of a general part with common provisions for all specialties and a specific part with all the descriptions of objectives. The description of objectives for each specialty should be understood against the background of the provisions in the general part.

In each description of objectives, there is a section headed 'Training structure' which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competence

Definition of area of competence

The specialty of clinical chemistry encompasses biochemical and medical knowledge and skills in the use of various laboratory methods for analysing biological material in order to diagnose diseases, establish indications of illness, evaluate risks of disease, and monitor the effects of treatment. Clinical chemistry is the expert skill intended to promote optimal and evidence-based use of clinical chemical laboratory activities in health care.

Competence requirements

Competence requirements for medical competence

Specialist competence in clinical chemistry requires knowledge and skills within clinical chemical laboratory activities. This involves competence in the use of commonly occurring clinical chemical analyses in medical investigation, and theoretical skills in the use of less common clinical chemical analyses in medical investigation. The competence includes knowledge about the principles underlying existing methods of clinical chemical analysis. Additionally, expertise in the role played by clinical chemical laboratory operations in patient work, as well as good knowledge about logistics, from taking specimens to issuing results, is required.

Additionally, expertise is required in following and applying information from relevant medical literature, as well as expertise in evaluating, introducing and providing medical advice about new analyses. Specialist competence in clinical chemistry also requires good knowledge of the principles underlying quality, as well as of the ethical and legal principles that govern clinical chemical laboratory activities.

Competence requirements for communicative competence, leadership competence and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for the patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin must be characterised by understanding of and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competencies. The same applies to contacts with representatives of the general public, various civil authorities, and other important parties for the area of competence.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students. Professional approach and ethics Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and an understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be able to mentor other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must have a capability for leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, financial and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in and be responsible for continuous systematic quality improvement, with emphasis on a holistic perspective, patient safety, patient benefit, measurability and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

Most of the specialist training programme should be held at a unit for clinical chemistry. During the introductory period, the emphasis should be on a general insight into elements common to all aspects of the specialty, such as the taking and handling of specimens, logistics, quality assurance and routine activities. ST doctors should then be given the opportunity of advanced study in the various knowledge areas of the field through clinical service in each area, at laboratories that carry out such activities. Various knowledge areas that should be covered during the course of the training include general chemistry, haematology, protein chemistry, coagulation, molecular biology, abuse, endocrinology, metabolic diseases and patient analysis. Through the various placements, ST doctors should obtain knowledge of the various common analysis methods and their medical use. For ST doctors whose principal placements are at a smaller unit for clinical chemistry, this may mean that they should do part of their training at a university or regional hospital, or at a similar unit.

Over the course of the training, the demands on ST doctors should gradually increase in respect of the independent introduction of new analysis methods, quality assessment of methods and processes, and the preparing of

information for clinics. In parallel with training in medical elements, ST doctors should also be given the opportunity to learn leadership and communication through mentoring and courses. Additionally, ST doctors should, under supervision, plan, carry out and present a scientific project or a development project. The timing of this project will be determined by the conditions governing the activity. During the latter part of the training, ST doctors should also carry out supplementary service within an internal medicine or similar specialty.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	**Teaching methods**	**Follow-up**
To have an understanding of clinical chemical laboratory methods	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 2	**Teaching methods**	**Follow-up**
To master the most common clinical chemical analyses	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 3	**Teaching methods**	**Follow-up**
To have an understanding of the less common clinical chemical analyses	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To master the evaluation and introduction of new analysis methods	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To have an understanding of logistics, from ordering analyses to issuing results	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 6	Teaching methods	Follow-up
To master the principles underlying quality, including statistics, within clinical chemical laboratory activities	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To master giving advice regarding clinical chemical analyses in connection with medical investigations	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To master the requirements and conditions for analysis methods when working with patients	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor

Intermediate objective 9	Teaching methods	Follow-up
To master the role of clinical chemical analysis activities in work with patients	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 10	Teaching methods	Follow-up
To master the most important ethical and legal principles that apply to clinical chemical laboratory activities	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To have knowledge of the activities of other specialties of laboratory medicine	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Auscultation under supervision in a unit where such operations are practised	

Intermediate objective 12	Teaching methods	Follow-up
To master routines for systematically following relevant medical literature in order to be able to make use of that knowledge in practical work	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of communication, both oral and written, with doctors and co-workers, as well as with patients and next of kin	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Large professional assembly	

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication with representatives of the general public, civil authorities and other important parties for the field	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing other doctors and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Instruction under supervision	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management, and regulatory systems of health care	Course	Certificate of successfully completed course, issued by course leader

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Written individual work under supervision according to scientific principles	Certificate of successfully completed course, issued by course leader
	Large professional assembly	

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor

Clinical pharmacology

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Medical competence
Communicative competence
Leadership competence
Competence within medical science and quality work

Introduction

On June 24, 2008, The National Board of Health and Welfare (Socialstyrelsen) decided to issue new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists of a general part with common provisions for all specialties and a specific part with all the descriptions of objectives. The description of objectives for each specialty should be understood against the background of the provisions in the general part.

In each description of objectives, there is a section headed 'Training structure' which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work

work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competence

Definition of area of competence

The specialty of clinical pharmacology encompasses the evaluation of the effects and safety of medicines at the individual, patient group and community levels. It further includes the provision of both objective medicinal information and the production of new knowledge about the effects and side effects of medicines. Clinical pharmacology thus represents expertise in medicine within health care, promoting evidence-based and rational medicinal treatments.

Competence requirements

Competence requirements for medical competence

Specialist competence in clinical pharmacology requires knowledge and skills enabling the independent practice of the profession. This involves expertise in critically evaluating medicine from the perspective of both effects and safety, which assumes fundamental pharmacological, medical, statistical and epidemiological knowledge. It also involves the ability to use this expertise in the choice of medicines for both individual patients and for patient or diagnosis groups. The choice and follow-up of medicines must further be based on pharmacokinetic principles and the results of medicinal and abuse analyses.

Specialist competence further requires knowledge in order to work for the rational and socially beneficial use of medicine, e.g. by means of objective, producer-independent medicinal information, orally and in writing. Knowledge about the development of medicines and about the national organisation for medicines is also essential.

Besides broad expertise in the field of clinical pharmacology, competence in a patient-oriented, medicine-intensive specialty is required.

Competence requirements for communicative competence, leadership competence and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for the patients' right to information, influence, and participation in decisions. It must also be characterised by cooperation and sensitivity to patients' needs, wishes and right to self-determination, and must stimulate patients' commitment to and responsibility for their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competencies. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and an understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be able to mentor other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must have a capability for leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead work in a team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, financial and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

It is important that most of the necessary competence is obtained at a clinical pharmacology unit. Specialist medical training should begin with an introduction to the various activities within clinical pharmacology, after which ST doctors will actively participate in the various activities. The individual elements of service can vary depending on the operational circumstances of the activity, but it is essential that ST doctors receive gradually increasing responsibility and become increasingly independent during their specialist medical training.

In order for ST doctors to obtain clinical experience in medicinal treatment of patients, it is important that service at a clinical pharmacological unit is supplemented with extended service within a patient oriented, drugs-intensive specialty for a lengthier period. In order to reap the greatest benefit from the supplementary service, ST doctors should perform service within clinical pharmacology, following supplementary training, in order to be able to use his or her clinical expertise in clinical pharmacological practice. Service at a drugs authority, drugs unit or in the drugs industry may also be considered.

During specialist medical training it is of great value that ST doctors are able to plan and carry out a research or development project within the field of clinical pharmacology, and that this project be presented at a scientific assembly or in a science periodical. The timing of this project will be determined by the conditions governing the activity.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	**Teaching methods**	**Follow-up**
To master evaluation of the effects of medicines	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 2	**Teaching methods**	**Follow-up**
To master evaluation of the safety of medicines	Clinical service under supervision in a unit that handles these issues	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 3	**Teaching methods**	**Follow-up**
To master fundamental statistical and epidemiological methods in the field of medicine	Clinical service under supervision in a unit that handles these issues	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 4	**Teaching methods**	**Follow-up**
To master giving advice to individual patients regarding medicinal treatment	Clinical service under supervision in a unit that handles these issues	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To master giving advice to patient or diagnosis groups regarding medicinal treatment	Clinical service under supervision in a unit that handles these issues	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To have an understanding of pharmacokinetics, medicinal analyses, and abuse analyses	Clinical service under supervision in a unit that handles these issues or auscultation under supervision in a unit that handles these issues	Certificate of successfully completed clinical service and competence achieved, issued by current mentor or certificate of successfully completed auscultation and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To master promoting the rational and socially beneficial use of medicines	Clinical service under supervision in a unit that handles these issues	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To master the provision of objective, producer-independent medicine information, orally and in writing	Clinical service under supervision in a unit that handles these issues	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Instruction under supervision	
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To have an understanding of all phases of the clinical development of medicine	Clinical service under supervision in a unit that handles these issues or auscultation under supervision in a unit that handles these issues	Certificate of successfully completed clinical service and competence achieved, issued by current mentor or certificate of successfully completed auscultation and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To have an understanding of the national organisation for medicines	Clinical service under supervision in a unit that handles these issues	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To have an in-depth understanding of at least one therapy area	Clinical service under supervision in a unit that handles these issues	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Mentoring under supervision	
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To have an understanding of investigation, diagnostics and treatment within one specialty	Clinical service under supervision in a unit that handles such conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin, and with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 14	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Instruction under supervision	

Intermediate objective 15	Teaching methods	Follow-up
To be capable of a professional, medically ethical approach	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as in a team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management, and regulatory systems of health care	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor

Clinical pathology

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Introduction

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In each description of objectives, there is a section headed 'Training structure' which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competence

Definition of area of competence

The specialty of clinical pathology encompasses knowledge and skills in diagnosing or ruling out illness in cell and tissue specimens from patients and screening populations, as well as in clinical autopsies. Diagnoses are based on macroscopic and microscopic observations, and on findings that emerge through the use of various supplementary methods. All types of somatic illness fall within the area of clinical pathology. However, diagnostics of precancerous conditions and malignant oncogenesis constitute a central task. The field includes a major responsibility for experimental and clinical research, and for training of doctors, biomedical analysts and other medical personnel.

Competence requirements

Competence requirements for medical competence

Specialist competence in clinical pathology requires the ability to carry out independent diagnostic work based on histopathological and cytological material, as well as on investigations in connection with clinical autopsies. This also encompasses knowledge about how tissue should be collected, handled and readied for the production of histopathological and cytological preparations, how immunological and molecular biology methods are used in diagnostics, and the ability to evaluate quality aspects of produced preparations.

Further, knowledge is required about the laws and regulations that regulate the activities at a laboratory of clinical pathology, and of laws and regulations that regulate the practical application of the Autopsy Act. Knowledge is also required of macroscopic and microscopic anatomy, pathophysiology, tumour biology and digital image processing, as well as of the role of pathology and cytology in screening activities, and knowledge of diagnosis registers.

Competence requirements for communicative competence, leadership competence and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for the patients'

right to information, influence, and participation in decisions. It must also be characterised by cooperation and sensitivity to patients' needs, wishes and right to self-determination, and must stimulate patients' commitment to and responsibility for their own care.

Gender and multicultural aspects

Communication with patients and their next of kin must be characterised by understanding of and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competencies. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and an understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be able to mentor other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must have a capability for leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, financial and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perceptive, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

Specialist medical training in clinical pathology should begin with a brief period of orientation service to give ST doctors a general understanding of the roles of the pathologist and the function and place of pathology laboratories in the health care chain, as well as knowledge about the expertise and areas of responsibility of other professional categories. In parallel with this, ST doctors should begin macroscopic and microscopic diagnostics and autopsy work, and participate in clinical conferences.

During the first half of the training programme, the emphasis should be on ST doctors obtaining a thorough knowledge of basic diagnostics. The objective should be ST doctors becoming well versed in morphological evaluation and investigation of the majority of common cases in the most

common areas of diagnostics. It is further recommended that ST doctors be allowed to evaluate cytological preparations early during training, since such preparations often form an important part of the investigation and diagnostics of many groups of tumours. It is advisable that ST doctors achieve some degree of independence in their work within both macroscopic and microscopic diagnostics during this period, and that they are given the opportunity to respond independently to cases.

During the second half of specialist medical training, a number of interests should be seen to. ST doctors should broaden their diagnostic capabilities to include handling of the entire spectrum of preparations that routinely occur in histopathological and cytological material. The opportunity for advanced study in one or several areas is also important. Such advanced study should not only include purely morphological methods; during this period ST doctors should also become familiar with how tissue can be used for complementary and molecular biology investigations. As during the first years, cytological diagnostics should be included as an important part of everyday tasks. During the second half of the training, ST doctors should be given the opportunity to participate in or lead administrative commissions.

During the entire course of the programme, ST doctors should be given the opportunity to pursue studies of the literature and to choose courses well adapted to training needs and the skill in question. It will be a clear advantage if the service has involved work both at university units and at other units.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	**Teaching methods**	**Follow-up**
To master histopathological diagnostics and managing preparations for cytological diagnostics	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 2	**Teaching methods**	**Follow-up**
To master managing fixed and unfixed samples for histopathological, cytological and non-morphological diagnostics	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 3	**Teaching methods**	**Follow-up**
To have an understanding of the preparation, production and colouring of histopathological and cytological preparations, including knowledge of puncture techniques	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 4	**Teaching methods**	**Follow-up**
To master quality assessment of histopathological and cytological samples, and to be able to evaluate aspiration cytology material regarding technique and quality	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To master carrying out clinical autopsies and microscopic diagnostics based on autopsy findings	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To be able to handle cases in which the issue of forensic autopsy may emerge	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Auscultation under supervision in a unit where such operations are practised	
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To master the use and interpretation of immunochemical investigations, and to have an understanding of supplementary methods and how these can be used in diagnostics	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To have an understanding of the statutes regulating the activities at a pathology and cytology laboratory, and to have an understanding of their application	Clinical service under supervision in a unit that handles such conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To have an understanding of the organ systems' macro- and microscopic anatomy, physiology and pathophysiology, and to have an understanding of general tumour biology	Clinical service under supervision in a unit that handles such conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To have knowledge of and understanding of general principles and methods of screening for pathological conditions with the use of pathological and cytological techniques	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 11	Teaching methods	Follow-up
To have an understanding of digital image processing	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 12	Teaching methods	Follow-up
To have an understanding of diagnosis registers, tumour registers, and of patient and laboratory data registers	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Diagnostics and treatment conference	

Intermediate objective 14	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Instruction under supervision	

Intermediate objective 15	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management, and regulatory systems of health care	Course	Certificate of successfully completed course, issued by course leader

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor
	Large professional assembly	
	Theoretical studies	

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor
	Theoretical studies	

Forensic medicine

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Introduction

On June 24, 2008, The National Board of Health and Welfare (Socialstyrelsen) decided to issue new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists of a general part with common provisions for all specialties and a specific part with all the descriptions of objectives. The description of objectives for each specialty should be understood against the background of the provisions in the general part.

In each description of objectives, there is a section headed 'Training structure' which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competence

Definition of area of competence

Forensic medicine encompasses diagnostics of illness or injury or other external impact on a living or dead person, with opinions on legal issues. The specialty also includes aid to judicial authorities in the form of other medical expertise required for these authorities' evaluation.

In view of the judicial implications it is of particular importance that conclusions conveyed are at the cutting edge of science and that they express a neutral and objective attitude. The relationship with examined subjects, their next of kin, and other interested parties cannot be regarded in the light of a traditional doctor-patient relationship.

The area of competence includes responsibility for the training of doctors, lawyers, and police officers in medico-legal matters, as well as a research responsibility.

Competence requirements

Competence requirements for medical competence

The specialist competence of forensic medicine requires the ability to independently carry out forensic examinations of living and dead persons, and the ability to document and interpret examination findings, as well as to issue opinions. Further, it requires the capability of providing assistance during crime scene investigations, participating in identification, and appearing as an expert in a court of law.

In order to achieve this, very good oral and written communicative competence is required, as well as active participation in quality management and development within the field of activity. It is also a requirement that ST doctors apply a scientific outlook in all aspects of routine practice. Critical review of both one's own work and evaluations, as well as that of colleagues, is a natural part of this.

Competence requirements for communicative competence, leadership competence and competence within medical science and quality work

Communicative competence

The citizen's perspective

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with the persons being examined, and of approaching them in a professional and respectful manner. In examining the deceased, doctors with specialist competence must be capable of combining

impartiality and precision with involvement and empathy, in order to offer the customer professional support. Contacts must be characterised by service-mindedness and expertise.

Multicultural and gender aspects

Communication with examinees and their next of kin must be characterised by understanding of and respect for cross-cultural and diversity aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communication, both written and oral, with other doctors and co-workers, and with representatives of public authorities, while respecting their professional knowledge and expertise. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have the pedagogical skills to inform and instruct others, primarily examinees, their families and representatives of public authorities, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible investigations.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and an understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be able to mentor other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must have a capability for leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead work in a team is essential.

System knowledge

Doctors with specialist competence must have an understanding of public authorities with a connection to forensic medicine, their organisation, administration, finances, regulatory framework, as well as their areas of responsibility and competence, for the best collaboration and use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

It is recommended that specialist medical training in forensic medicine begin with a brief period of orientation service to give ST doctors a general understanding of the role of the medico-legal expert and the function and place of forensic medicine in the judicial process. In parallel with this, ST doctors should begin examination under supervision of both living and deceased persons.

During the first part of training, ST doctors should obtain a thorough knowledge of basic forensic medicine, in particular with respect to the relevant legal regulation and to good and efficient examination techniques. It is important that ST doctors acquire knowledge about the examination and

evaluation of commonly occurring cases, including the taking of samples and additional examinations, during this period. It is important throughout the training programme that ST doctors pursue theoretical studies, and that they are trained in the critical review of their own and others' evaluations.

It is important that ST doctors are well schooled early on in training, in terms of language as well as facts, in recording and in writing forensic opinions and expert advice. ST doctors should further be trained in communication with examinees, their next of kin and colleagues, and in evaluating, together with the supervisor, analysis results regarding additional examinations, so that ST doctors achieve a satisfactory degree of independence in these respects.

During the second part of specialist training, it is important that skills are deepened and broadened by including confident handling of the entire spectrum of evaluations that routinely occur in the forensic expert's work. During this period, ST doctors should regularly take part in evaluations of complex matters, e.g. sexual assault of children, murder or manslaughter, deaths in connection with suspected errors or negligence in health care, and crime scene investigations. During the latter part of the training programme, ST doctors should also be trained in advanced dissection techniques, and be given the opportunity of appearing independently as an expert before a court of law. It is important that ST doctors be given the opportunity to pursue advanced studies in one or several specialist areas, and to participate in or lead administrative tasks.

Service in forensic medicine should include work at more than one forensic department, of which several should ideally be outside Sweden. Supplementary training should further include service at a clinical pathology laboratory, and can include service within activities with frequent patient contact as well, e.g. clinical radiology, paediatrics, dermatology, anaesthesiology, orthopaedics or gynaecology.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	**Teaching methods**	**Follow-up**
To master forensic examination of a living person	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course or large professional assembly	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 2	**Teaching methods**	**Follow-up**
To master forensic examination of a deceased person	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course or large professional assembly	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 3	**Teaching methods**	**Follow-up**
To master serving as an expert before a court of law	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Sitting-in	

Intermediate objective 4	Teaching methods	Follow-up
To master knowledge of statutes and other regulations governing forensic operations	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To be capable of evaluating toxicological analysis results	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Auscultation under supervision in a unit where such operations are practised or course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To be capable of evaluating histological preparations	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To be able to handle classification of illnesses and injuries, as well as registration in the authority's database	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To be able to handle photography and digital image processing	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To be able to handle tasks at discovery and crime scenes	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Auscultation under supervision in a unit where such operations are practised or course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To have an understanding of various additional examinations and how these may be used in diagnostics	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To have an understanding of fixing, production and colouring of histopathological preparations	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course or theoretical studies	Certificate of successfully completed course, issued by course leader

Intermediate objective 12	Teaching methods	Follow-up
To be able to evaluate the results of radiological examinations relevant to the field of knowledge	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of communication with examinees and their next of kin in an impartial, precise and empathic manner	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers, and with representatives of public authorities	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Instruction under supervision	
	Large professional assembly	

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing examinees, their next of kin, and representatives of public authorities	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Instruction under supervision	Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors, co-workers and students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management, and regulatory systems of health care	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach, and to have an understanding of methods for evidence-based medicine and the review of scientific information	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Seminar	
	Theoretical studies	

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor

Neurological specialties

Neurology

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Introduction

On June 24, 2008, the Board of Health and Welfare decided to issue new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists of a general part with common provisions for all specialties and a specific part with all the descriptions of objectives. The description of objectives for the respective specialties should be understood against the background of the provisions in the general part. In each description of objectives, there is a section headed 'Training structure' which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

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a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

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training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competence

Definition of area of competence

The neurology specialty comprises illness and injuries to the central and peripheral nervous systems in adults.

The nervous system is the body's most complex and extensive organ. Consequently, the illness panorama is especially multifaceted and is characterised by a considerable degree of variation, even among patients suffering from the same illness. The majority of patients undergo a neurological examination with no established diagnosis. The basis of neurology is therefore the skill of being able to clinically analyse and evaluate the symptom array, especially disorders of muscle power, sensation, balance, coordination, movement, levels of consciousness, intellect and personality, as well as symptoms of seizures, headaches and other pain conditions.

Improved diagnostic methods within imaging diagnostics and molecular genetics have expanded, and will continue to expand, the neurological illness panorama.

Opportunities for both emergency and long term therapeutic efforts to combat neurological illnesses have increased radically. Many neurological illnesses manifest as an acute condition and require emergency treatment. It is then necessary to intervene early in the course of the illness and follow the effects of treatment.

As neurological illnesses can cause cognitive and linguistic disorders, and affect the autonomy of the patient, good communicative competence is essential.

Competence requirements

Competence requirements for medical competence

For specialist competence in neurology, knowledge and proficiencies that enable the practitioner to independently master the investigation, diagnostics, treatment and follow-up of illnesses of, and injuries to, the nervous system in its wider sense are necessary. This includes the mastery of neurological, clinical diagnostics and complementary examination methods.

In addition, specialist competence requires that the practitioner masters the diagnostics and treatment of acute, dangerous conditions and injuries of the nervous system, epilepsy and other neurological seizure illnesses, movement disorders, basal ganglia illnesses and serious dementia conditions, neuromuscular illnesses and illnesses of the peripheral nervous system, demyelinating and inflammatory illnesses of the nervous system, neurovascular illnesses and forms of headache. In addition it is necessary that the practitioner is able to deal with neurological trauma, tumours and infections of the nervous system.

Finally, knowledge is necessary concerning neurophysiological, neuroradiological, neuroopthalmological, neurourological and neuropsychiatric aspects as well as opportunities for neurological rehabilitation after neurological injuries and illnesses.

Competence requirements for communicative competence, leadership competence and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for patients' right to information, influence, and participation in decisions. Contact should also be characterised by cooperation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must have the ability to communicate, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competences. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addi-

tion to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and an understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be able to mentor other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness and dialogue with co-workers. Leadership must further be characterised by participation and operational development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, financial and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical competence

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and activities aimed at preventing injury and illness, in

order to be able to take this understanding into account in medical scientific work.

Training structure

At an early stage of specialist training, emphasis should be placed on examination techniques, analysis of neurological phenomenology, and good levels of familiarity with neurological diagnostics plus primary treatment of acute, common and dangerous illnesses and injuries to the nervous system.

It is desirable that ST doctors, early on in their training, achieve a certain independence in their clinical work. Over this period it is suitable that ST doctors work within operations that treat all the major neurological illnesses. Concentrated periods, focussing on the various intermediate objectives should be the aim, as should opportunities for more in-depth experience. In addition, course, seminar and participation in larger, professional meetings are an important complement which, as far as possible, should be harmonised as far as timing with the rest of the training course is concerned.

The operations of the units at which specialist training is carried out should be of such scope and breadth within all the major areas of clinical neurology that ST doctors have the background to achieve the relevant competence level within all the competence areas. These units should be led by neurologists with specialist competence.

The hospital should be an emergency ward, and the practical service should include ward, clinical and on-call duties at the neurological unit.

In order to ensure that ST doctors are able to gain experience of unusual and rare neurological illnesses that are not available at their own units, a certain period of the later part of the specialist medical training should be spent in a unit that deals with such conditions.

Simultaneous additional training through service should be carried out primarily within the following areas: neurological surgery, clinical neurophysiology, psychiatry, and internal medicine. The ST doctor is also expected to pursue theoretical studies throughout the entire training period.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. These recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	**Teaching methods**	**Follow-up**
To master the diagnostics and treatment of severe and dangerous illnesses and injuries to the nervous system	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Teaching under supervision	
	Seminar	
	Large professional assembly	
	Theoretical studies	

Intermediate objective 2	**Teaching methods**	**Follow-up**
To master the diagnostics, and the acute and long-term treatment, of epilepsy and other seizure illnesses	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Teaching under supervision	
	Seminar	
	Large professional assembly	
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To master diagnostics, and the acute and long-term treatment, of neurological degenerative illnesses with special emphasis on movement problems and basal ganglia illnesses plus serious dementia conditions	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Teaching under supervision	
	Seminar	
	Large professional assembly	
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To master the diagnostics, and the acute and long-term treatment, of neurological muscular illnesses and illnesses of the peripheral nervous system	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Teaching under supervision	
	Seminar	
	Large professional assembly	
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To master the diagnostics, and the acute and long-term treatment, of the nervous system's inflammatory and demyelinating illnesses	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Teaching under supervision	
	Seminar	
	Large professional assembly	
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To master the diagnostics, and the acute and long-term treatment, of tumours in the nervous system	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar	
	Large professional assembly	
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To master diagnostics, and the acute and long-term treatment, of neurovascular illness	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Teaching under supervision	
	Seminar	
	Large professional assembly	
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To master diagnostics, and the acute and long-term treatment, of neurological trauma	Clinical service under supervision in a unit that treats these conditions alternatively auscultation under supervision at a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor or certificate of approved auscultation and competence achieved, issued by current mentor
	Seminar	
	Large professional assembly	
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To master diagnostics plus the acute and long-term treatment of headaches	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Teaching under supervision	
	Seminar	
	Large professional assembly	
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To be able to initially handle diagnostics and the acute and long-term treatment of infections of the nervous system	Clinical service under supervision in a unit that treats these conditions alternatively auscultation under supervision at a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor or certificate of approved auscultation and competence achieved, issued by current mentor
	Seminar	
	Large professional assembly	
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To master neurological clinical diagnostics with additional investigative methods especially lumbar puncture and the diagnosis of brain death	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Teaching under supervision	
	Seminar	
	Large professional assembly	
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To have knowledge of neuro-physiological, neuroradiological, neuroopthalmological, neurooto-logical, neurourological and neuropsychiatric aspects and neurorehabilitation opportunities for neurological injuries and illnesses	Clinical service under super-vision in a unit that treats these conditions alternatively auscultation under supervi-sion at a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor or certificate of approved aus-cultation and competence achieved, issued by current mentor
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin	Clinical service under super-vision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communica-tion, both oral and written, with other doctors and co-workers	Clinical service under super-vision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under super-vision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Teaching under supervision	
	Theoretical studies	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management and regulatory systems of health and medical care	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medical scientific outlook and approach	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor
	Large professional assembly	
	Theoretical studies	

Intermediate objective 20	Teaching methods	Follow-up
To develop an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of successful completion of quality and development work, issued by current mentor
	Theoretical studies	

Neurological surgery

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Introduction

On June 24, 2008, the Board of Health and Welfare decided to issue new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists of a general part with common provisions for all specialties and a specific part with all the descriptions of objectives. The description of objectives for the respective specialties should be understood against the background of the provisions in the general part.

In each description of objectives, there is a section headed 'Training structure' which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competence

Definition of area of competence

The specialty of neurosurgery encompasses in-depth knowledge and proficiencies in the treatment of congenital and acquired illnesses, and injuries to the nervous system that are treated with neurological surgical methods. Consequently, surgical operating skills are crucial.

The profile of this specialty extends from acute, lifesaving procedures to highly qualified elective surgery using minimally invasive methods and neurological intensive care. The patient group includes all ages.

Competence requirements

Competence requirements for medical science

Specialist competence in neurosurgery requires the ability to treat all forms of emergency neurological surgery, a good level of knowledge of the treatment of elective neurological surgical issues, and having performed standard operations. It is also necessary that doctors have received an orientation in extremely unusual neurological surgical conditions and advanced neurological surgical procedures.

Competence requirements for communicative competence, leadership competence and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for patients' right to information, influence, and participation in decisions. Contact should also be characterised by cooperation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must have the ability to communicate, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competences. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and an understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be able to mentor other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness and dialogue with co-workers. Leadership must further be characterised by participation and operational development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, financial and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology including the basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and activities aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

At an early stage of service, emphasis should be placed on neurological surgical examination techniques and primary treatment of acute neurological surgical conditions. The ST doctor should regularly, and as an integrated participant, participate as an assistant in emergency and elective operations.

As time passes, the ST doctor's service should be in concentrated periods, focusing on the various partial areas.

At the end of specialist medical training, the ST doctors should have achieved such a level of competence that they can independently carry out standard surgical procedures in accordance with the stipulations in the intermediate objectives.

During the entire course of their service, ST doctors should pursue relevant theoretical studies and participate in course planned jointly with their mentors.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. These recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical science

Intermediate objective 1	Teaching methods	Follow-up
To master neurological surgical investigation and examination techniques	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 2	Teaching methods	Follow-up
To master basic surgical techniques	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To be able to initially handle neurotraumatic injuries	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Auscultation under supervision at a unit that treats these conditions	
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To master basic neurological intensive care and to gain knowledge of neuroanaesthetics	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To be able to handle tumour conditions within the central nervous system	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To be able to handle neurovascular conditions	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Auscultation under supervision at a unit that treats these conditions	Certificate of successfully completed course, issued by course leader
	Course	
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To be able to handle degenerative spinal conditions	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To be able to handle neuropaediatric and congenital conditions	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To be able to handle liquor circulation disorders	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To be able to handle primary and secondary neurological surgical infections	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To be able to initially handle and gain knowledge of functional neurological surgical conditions	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Diagnostics and treatment symposiums	
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To be able to handle neurological surgical complications	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of maintaining dialogue and open contact with the patient and their next of kin	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Care team operations under supervision	

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Teaching under supervision	
	Seminar	
	Large professional assembly	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management and regulatory systems of health and medical care	Course	Certificate of successfully completed course, issued by course leader

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor

Intermediate objective 20	Teaching methods	Follow-up
To develop an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of successful completion of quality and development work, issued by current mentor

Clinical neurophysiology

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Introduction

On June 24, 2008, the Board of Health and Welfare decided to issue new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists of a general part with common provisions for all specialties and a specific part with all the descriptions of objectives. The description of objectives for the respective specialties should be understood against the background of the provisions in the general part.

In each description of objectives, there is a section headed 'Training structure' which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competence

Definition of area of competence

The specialty of clinical neurophysiology demonstrates and evaluates changes and functional impairments, primarily using electrophysiological methods, within the central and peripheral nervous systems, muscles and sensory organs. Patient-based diagnostics covers all age groups.

Clinical neurophysiology offers diagnostic support not only to other neurological specialties but also to a number of other specialties. Important elements of operations include emergency activities, intensive care, intraoperative monitoring and distance consultations. Clinical neurophysiology also includes the ability to plan and implement investigation programmes for mapping, analysis and prognosis assessment of the conditions causing the patient's problems. Methodological development and research form an important element of the activities in this area of competence.

Competence requirements

Competence requirements for medical science

For specialist competence in clinical neurophysiology it is necessary to gain in-depth knowledge of the development, anatomy, and physiology of the nervous system, as well as of illnesses and injuries to the nervous system, muscles and sensory organs. In addition, theoretical knowledge of, and practical proficiencies in, neurophysiological methods are essential. Relevant knowledge of digital and IT technology is required, as well as knowledge of other neurofunctional examination techniques, for example within radiology and nuclear medicine. Additionally, being capable of evaluating neurophysical results in their medical context, establishing neurophysiological opinions, and presenting and discussing results are required. Knowledge of research methodology and methodological development is also necessary.

Competence requirements for communicative competence, leadership competence and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for patients' right to information, influence, and participation in decisions. Contact should also be characterised by cooperation and sensitivity to the patients' needs, de-

sires and right to self-determination, as well as providing incentive for patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must have the ability to communicate, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competences. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and an understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be able to mentor other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness and dialogue with co-workers. Leadership

must further be characterised by participation and operational development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, financial and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and activities aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

Training should be initiated with clinical service aimed at providing theoretical knowledge as well as training proficiencies in basic EEG, EMG and neurographical methods. ST doctors should participate in the treatment of emergency examinations early on. ST doctors should also, on a continuous basis, participate in rounds and clinical conferences and have the opportunity to lead such operations.

During the course of continued training, competence should be developed so that ST doctors, at the end of their training period, have mastered the most common forms of neurophysiological examination methods. In addition, ST doctors must learn to master other neurophysiological examination methods such as magnet stimulation and sleep registration. They must also gain good levels of knowledge of brain reaction potential and methods of examining the autonomous nervous system.

During the latter part of the training period, ST doctors should obtain knowledge of special neurophysiological activities such as epilepsy surgery and intraoperative monitoring. It is also important that ST doctors gain knowledge of other neurophysiological examination methods within radiology as well as nuclear medicine.

ST doctors should undertake simultaneous additional training through service in neurology, something that can advantageously be scheduled early on in the training period. Additional in-service training is aimed at providing the knowledge and skills necessary to be able to plan and implement relevant neurophysiological investigations, based on a referral. Consequently the emphasis should be placed on training the capability of carrying out and evaluating patient histories, and the neurological status of children and adults, as well as providing improved competence within the neurological knowledge field. Additional in-service training or auscultation, primarily within child and adolescent neurology but also within other areas of neurology, form valuable complements. The same can be said for additional in-service training at other neurophysiological units.

ST doctors should be given the opportunity, during the entire course of their training, to pursue theoretical studies parallel with their practical training, and after the initial service period to acquire competence in communications and leadership as well as in medical science and quality work.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. These recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical science

Intermediate objective 1	Teaching methods	Follow-up
To have knowledge of the anatomy, physiology and development of the nervous system	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar	
	Theoretical studies	

Intermediate objective 2	Teaching methods	Follow-up
To have knowledge of illnesses and injuries of the nervous system, sensory organs and in the muscles, as well as of underlying pathophysiological mechanisms	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar	
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To have knowledge of theoretical neurophysiology and of measuring techniques, electronics, signal analysis, digital technology and network communications, to the relevant degree	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar	
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To master the most common examination methods within clinical neurophysiology	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To be able to handle the application of the less-common examination methods within clinical neurophysiology	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Auscultation under supervision in a unit where such operations are practised	Certificate of successfully completed course, issued by course leader
	Course	
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To gain knowledge of neurofunctional examination methods within other specialties	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Auscultation under supervision in a unit where such operations are practised	Certificate of successfully completed course, issued by course leader
	Course	
	Sitting-in	

Intermediate objective 7	Teaching methods	Follow-up
To be able to evaluate medical conditions relevant to this specialty	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Diagnostics and treatment symposium	
	Sitting-in	

Intermediate objective 8	Teaching methods	Follow-up
To master neurophysiological investigations based on various issues	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Diagnostics and treatment symposium	
	Sitting-in	

Intermediate objective 9	Teaching methods	Follow-up
To be able to handle the prioritisation of patients and examinations based on medical benefit and security plus degree of urgency	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Health care teamwork under supervision	
	Diagnostics and treatment symposium	

Intermediate objective 10	Teaching methods	Follow-up
To be able to evaluate neurophysiological results in their medical context and how they affect medical treatment	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Health care teamwork under supervision	
	Diagnostics and treatment symposium	

Intermediate objective 11	Teaching methods	Follow-up
To be able to handle evaluation and testing of new methods in clinical neurophysiology praxis	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor
	Quality and development work under supervision	Certificate of approved quality and development activities, issued by current mentor
	Large professional assembly	

Intermediate objective 12	Teaching methods	Follow-up
To have knowledge of the limitations and risks of neurophysiological methods	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar	
	Theoretical studies	

Communicative competence

Intermediate objective 13	**Teaching methods**	**Follow-up**
To be capable of dialogue and maintaining open contact with patients and their next of kin	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Seminar	
	Sitting-in	

Intermediate objective 14	**Teaching methods**	**Follow-up**
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Teaching under supervision	
	Large professional assembly	
	Diagnostics and treatment symposiums	

Intermediate objective 15	**Teaching methods**	**Follow-up**
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Teaching under supervision	
	Health care teamwork under supervision	
	Sitting-in	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Health care teamwork under supervision	

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management and regulatory systems of health and medical care	Course	Certificate of successfully completed course, issued by course leader

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor

Intermediate objective 20	Teaching methods	Follow-up
To develop an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of successful completion of quality and development work, issued by current mentor

Intermediate objective 21	**Teaching methods**	**Follow-up**
To have an understanding of research methods as well as methods for evidence-based medicine and review of scientific information	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor
	Seminar	
	Large professional assembly	
	Theoretical studies	

Physiotherapy and rehabilitation

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Introduction

On June 24, 2008, the Board of Health and Welfare decided to issue new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists of a general part with common provisions for all specialties and a specific part with all the descriptions of objectives. The description of objectives for the respective specialties should be understood against the background of the provisions in the general part. In each description of objectives, there is a section headed 'Training structure' which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competence

Definition of area of competence

The specialty of physiotherapy and rehabilitation encompasses in-depth knowledge and skills in investigating patients with considerable functional impairments and in leading, coordinating, and implementing qualified rehabilitation activities based on a bio-psycho-social approach. The point of departure for both investigation and rehabilitation measures is a holistic approach including an analysis of function, capabilities and participation, taking into consideration both personal factors and factors affecting the patient's surroundings. The general term rehabilitation stands for complex, up-to-date, coordinated activities of the medical, psychological, pedagogical and social type. The aim is to eliminate, reduce or compensate for serious impairments to function and activity ability caused by illnesses and injuries.

Competence requirements

Competence requirements for medical science

For specialist competence in physiotherapy and rehabilitation it is essential to master the rehabilitation of traumatic, vascular, and other injuries and illnesses within the central and peripheral nervous systems resulting in extensive functional impairment as a result, using the relevant knowledge of anatomy, neurobiology and physiology as the point of departure. This includes long-term pain conditions. In addition knowledge concerning rehabilitation of functional impairments of the locomotory organs and chronic neurological illnesses is necessary.

Specialist competence in physiotherapy and rehabilitation also requires knowledge of the treatment of internal medical complications and conditions that may occur during rehabilitation, plus knowledge of adult habilitation. In addition it is necessary to master the psychological consequences of these illnesses for the patients and their next of kin, plus the effects of psychiatric illnesses on rehabilitation.

Special emphasis is to be placed on the interdisciplinary working method that characterises physiotherapy and rehabilitation, which includes knowledge of different professions and actors and their methods.

Competence requirements for communicative competence, leadership competence and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for the patients' involvement in and responsibility for their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must have the ability to communicate, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competences. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students. Professional approach and ethics Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and an understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be able to mentor other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness and dialogue with co-workers. Leadership must further be characterised by participation and operational development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, financial and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and activities aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

ST doctors in physiotherapy and rehabilitation should initially be trained in interdisciplinary team work in a specialised rehabilitation unit. The objective is that ST doctors will eventually be able to lead their teams in the evaluation, prioritisation and planning of rehabilitation activities. This also includes training in the keeping of documentation and also in various forms

of contacts with other rehabilitation partners inside and outside the medical care system.

When basic knowledge of the primary areas in the specialty of neurological and pain rehabilitation has been acquired, it is suitable that the ST doctors begin their in-service training through clinical service primarily within internal medical, psychiatric and neurological operations. Suitable areas for other service or auscultation could include adult habilitation, orthopaedics, rheumatology, neurophysiology, neurosurgery plus occupational and environmental medicine. Specialist training should be concluded with a period in which the ST doctors are given the opportunity to independently lead a rehabilitation team. It is important that ST doctors are given the opportunity to participate in course within the primary areas of the specialty as an integrated element of their specialist medical training. In addition, ST doctors should participate in further training both internally at the clinics and externally throughout their entire period of specialist training, as well as being allocated time for knowledge acquisition and in-depth study of the literature.

In consultation with their mentors, ST doctors should also carry out an independent development or exploration project, as well as being afforded the opportunity to instruct patients and their next of kin, as well as co-workers, under supervision.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. These recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical science

Intermediate objective 1	**Teaching methods**	**Follow-up**
To master anatomy, neurobiology, and neurophysiology as a theoretical foundation for clinical evaluation and handling	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course or large professional assembly	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 2	**Teaching methods**	**Follow-up**
To master the investigation of function, capabilities, and participation and to be able to evaluate rehabilitation potential, prioritise activities and formulate a rehabilitation plan, based on these assessments	Clinical service under supervision in a unit that handles these issues	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Health care team work under supervision	
	Theoretical studies	

Intermediate objective 3	**Teaching methods**	**Follow-up**
To have knowledge of the methods of investigation and rehabilitation used by all the professions in the interdisciplinary rehabilitation team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Health care teamwork under supervision	
	Sitting-in	
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To have knowledge of how psychological factors and psychiatric illnesses affect the rehabilitation process and on how these conditions can be treated	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Seminar	
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To have knowledge about other rehabilitation partners both inside and outside the medical and health care systems and to collaborate with them	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Diagnostics and treatment symposiums	
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To master rehabilitation of brain damage in a patient	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course Health care team work under supervision	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To master rehabilitation of spinal cord injuries	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Health care team work under supervision	
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To be able to handle rehabilitation of peripheral nerve damage and chronic neurological conditions	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Health care team work under supervision	
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To master rehabilitation of patients suffering from long-term pain	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Health care team work under supervision	
	Diagnostics and treatment symposium	
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To be able to handle rehabilitation of injuries and illnesses in locomotor and support organs	Clinical service under supervision in a unit that treats these conditions alternatively auscultation under supervision at a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor or certificate of approved auscultation and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To be able to handle rehabilitation	Clinical service under supervision in a unit that treats these conditions alternatively auscultation under supervision at a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor or certificate of approved auscultation and competence achieved, issued by current mentor
	Sitting-in	
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To be able to handle internal medical conditions in connection with rehabilitation	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and maintaining open contact with patients and their next of kin	Clinical service under supervision in a unit where such operations are practised	Certificate of approved clinical service and competence issued by current mentor
	Sitting-in	

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Diagnostics and treatment symposiums	
	Sitting-in	

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Teaching under supervision	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	
	Sitting-in	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Theoretical studies	

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management and regulatory systems of health and medical care	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Competence within medical science and quality work

Intermediate objective 19	**Teaching methods**	**Follow-up**
To be capable of a medically scientific outlook and approach	Written individual work under supervision according to scientific principles	Certificate of approved written individual work issued by current mentor
	Theoretical studies	

Intermediate objective 20	**Teaching methods**	**Follow-up**
To develop an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of successful completion of quality and development work, issued by current mentor
	Seminar	
	Theoretical studies	

Separate base specialties

Family medicine

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Introduction

On June 24, 2008, The National Board of Health and Welfare (Socialstyrelsen) decided to issue new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists of a general part with common provisions for all specialties and a specific part with all the descriptions of objectives. The description of objectives for the respective specialties should be understood against the background of the provisions in the general part.

In each description of objectives, there is a section headed 'Training structure' which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competence

Definition of area of competence

Family medicine is a medical specialty that emphasizes interaction with patients. The specialty involves the ability to meet people of all ages with all kinds of health-related problems, and independently to evaluate and treat them, including experiences and complaints not caused by a definable illness.

The practice of family medicine also requires the ability to follow the various health problems of an individual over a long period of time, and the consequent ability to consider his or her overall life situation when evaluating these health problems.

Competence requirements

Competence requirements for medical competence

Specialist competence in family medicine requires knowledge and skills within the entire area of competence of general medicine, focusing on individuals and illnesses, as well as an awareness of ethical issues. Further requirements include being capable of a holistic view – being able to consider the patient's overall situation in medical assessments and treatment – and being capable of working with continuity – that is, being able to follow and evaluate changes to an individual's state of health over an extended period of time.

Capability in prioritising based on the degree of medical urgency and being able to collaborate with other entities within health care, as well as being able to switch between short emergency visits, longer consultations, and house calls are all essential for specialist competence.

Specialist competence in general medicine further requires knowledge of diagnostics and treatment of health-related complaints in people of all ages, knowledge of basic paediatric and maternity care, knowledge of preventive and rehabilitation measures, and mastering the types of public authority assignments that occur in general medical practice.

Specialist competence in family medicine also requires being able to continuously evaluate one's own expertise, and to supplement and develop it based on the result.

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact must be characterised by empathy and trust, as well as respect for patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation and religion, as well as gender.

Intraprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competences. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and an understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to critically review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

Specialist training is intended to provide a common qualification for all family medical practitioners, which can later be supplemented depending on the circumstances of the work to carried out.

Most of the expertise necessary for specialist competence in family medicine should be acquired at a local health care centre. It is therefore of the utmost importance that the training begin with extended, continuous service at the care centre where the training is principally to be held. Training in emergency medicine should be held early on in specialist medical training.

In order for ST doctors to gain experience of the continuity of the doctor-patient relationship, which is a cornerstone of competence in family medicine, a long, continuous period of clinical service at the training care centre is required, as well as the possibility of regular contact with that centre during periods of service in other units. At the same time, it is important to gain experience of different ways of working in family medicine. This is best achieved by supplementing the main clinical service with shorter periods of service, auscultations or study visits to other medical care centres, within or outside of the country. Clinical service at a care centre is to be supplemented with other service, as necessary.

The opportunity for feedback and training which occurs in most specialties, for example in the form of participation in various types of medical rounds, is usually not present in family medical practice, as this is most often carried out in private with the patient. To achieve specialist competence in general medicine, intraprofessional discussion and reflection is therefore necessary, for instance in FQ groups – a special form of regularly recurring collegial training and quality development – or in special seminars for ST doctors. Balint groups are another example of a method for such professional development.

In order for ST doctors to achieve satisfactory communicative competence, it is of the utmost importance that recurring mutual sitting-in is carried out, as that way they get the chance to see how an experienced colleague - preferably the mentor - deals with patients, as well as the opportunity of being seen in their own work with patients.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	**Teaching methods**	**Follow-up**
To master evaluating and managing health problems that occur in Sweden, based on a professional and ethical approach	Clinical service under supervision at a medical care centre	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Intraprofessional group reflection	
	Theoretical studies	

Intermediate objective 2	**Teaching methods**	**Follow-up**
To master determining the degree of medical urgency and prioritising among those seeking care in an ethically satisfactory way	Clinical service under supervision in a health care centre	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Intraprofessional group reflection	
	Theoretical studies	

Intermediate objective 3	**Teaching methods**	**Follow-up**
To master following a patient over an extended period of time, taking the patient's whole life situation into consideration, and when meeting the patient, to be capable of taking his or her perceptions, expectations, and fears into account	Clinical service under supervision in a health care centre	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Intraprofessional group reflection	

Intermediate objective 4	Teaching methods	Follow-up
To master diagnosing, treating, and following patients of all ages with health problems and common widespread diseases	Clinical service under supervision in a health care centre	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Intraprofessional group reflection	
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To master initially evaluating, referring, and following individuals with medical conditions requiring care beyond the capacities of ST doctors's own unit	Clinical service under supervision in a health care centre	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Intraprofessional group reflection	
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To master practising health care for children and youth	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To master commonly occurring gynaecological complaints and illnesses in women of various ages, and in maternity care for normal pregnancies	Clinical service under supervision in a health care centre	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Clinical service at a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To master the special health problems of elderly people, and to master home care and palliative care in the final stages of life for people of all ages	Clinical service under supervision in a health care centre	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Clinical service at a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Intraprofessional group reflection	
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To master house calls as an instrument of diagnostics and treatment, and in order to gain a complete picture of a patient's situation	Clinical service under supervision in a health care centre	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Intraprofessional group reflection	

Intermediate objective 10	Teaching methods	Follow-up
To master initiating and participating in medical rehabilitation and occupational rehabilitation, in collaboration with other social resources	Clinical service under supervision in a health care centre	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Intraprofessional group reflection	
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To master the public authority assignments that are included in general medical practice, including the prevention and control of infection	Clinical service under supervision in a health care centre	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Intraprofessional group reflection	
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To have an understanding of how to discover, identify and prevent injuries and other health problems in the local community	Clinical service under supervision in a health care centre	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Intraprofessional group reflection	
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of maintaining dialogue and open contact with patients and their next of kin, and to be capable of communication, both written and oral, with other doctors and co-workers, representatives of the general public and of various civil authorities	Clinical service under supervision at a medical care centre	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Intraprofessional group reflection	

Intermediate objective 14	Teaching methods	Follow-up
To be capable of informing and instructing in a pedagogic manner	Clinical service under supervision in a health care centre	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Instruction under supervision	
	Intraprofessional group reflection	
	Theoretical studies	

Intermediate objective 15	Teaching methods	Follow-up
To be capable of continually examining and identifying one's own needs for professional development, together with operational requirements	Clinical service under supervision in a health care centre	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Intraprofessional group reflection	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers, as well as students	Clinical service under supervision at a medical care centre	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of self-awareness and have an understanding of one's own function and role in the organisation, and to be capable of leadership	Clinical service under supervision in a health care centre	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Intraprofessional group reflection	

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, administration, finances, and regulatory systems of health care, as well as its governance, in order to make the best use of resources	Course	Certificate of successfully completed course, issued by course leader
	Intraprofessional group reflection	
	Theoretical studies	

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medical scientific outlook and approach	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Intraprofessional group reflection	
	Theoretical studies	

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor
	Intraprofessional group reflection	
	Theoretical studies	

Intermediate objective 21	Teaching methods	Follow-up
To have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work	Intraprofessional group reflection	
	Theoretical studies	

Oncology

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Introduction

On June 24, 2008, The National Board of Health and Welfare (Socialstyrelsen) decided to issue new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists of a general part with common provisions for all specialties and a specific part with all the descriptions of objectives. The description of objectives for the respective specialties should be understood against the background of the provisions in the general part.

In each description of objectives, there is a section headed 'Training structure' which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competence

Definition of area of competence

The specialty of oncology involves in-depth knowledge of the management of patients with cancer including lymphoma, as well as general knowledge of haematologic and gynaecological malignancies. This requires an overall view of the problems of oncology, which includes knowledge of epidemiology, tumour biology, prevention, targeted health controls, tumour diagnostics, medical and radiotherapeutic treatment, follow-up and management of side effects of the illness and treatment, rehabilitation, psychosocial care and palliative measures as well as care during the final stages of life. The area of competence incorporates a multidisciplinary work approach.

Oncology is the base specialty of the branch specialty gynaecological oncology.

Competence requirements

Competence requirements for medical competence

Specialist competence in oncology requires fundamental theoretical knowledge of epidemiology, aetiology, tumour biology, genetics, diagnostic methods, basic radiation physics and radiation biology, as well as oncological pharmacology. Mastering medical oncological treatment methods and radiotherapy is a further requirement. The qualified specialist must also be able to manage acute and chronic complications, and master care during the final stages of life based on a holistic view of the patient (intermediate objectives 1-7).

Specialist competence in oncology further requires being able to independently investigate, treat, and follow up patients with common forms of cancer in the curative and palliative phases, as well as being able to initially handle unusual forms of cancer. Additionally, knowledge of the side effects of illness and treatment is required. The ability to initially evaluate gynaecological and haematological malignancies is also a requirement, as is having knowledge of nuclear medicine treatments.

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact must be characterised by empathy and trust, as well as respect for patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competences. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and an understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to critically review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

An uninterrupted period spent in inpatient oncological care should come early on in the training programme, to give ST doctors a comprehensive picture of the panorama of cancer and of the complications of the conditions as well as their treatment. In order to benefit from the specialist training in the best possible way, ST doctors should receive an early introduction to

medical oncological treatment and radiotherapy. Courses in pain management and palliative medicine should also be included during this period.

In the following stage, the service should take place at units treating the major forms of cancer. Courses in chemotherapy and other pharmacological oncological treatment should be included at this stage, as well as tumour-specific courses.

Radiation treatment is one of the cornerstones of oncological treatment. Training in radiation treatment should ideally occur during the middle of the training programme. It should take the form of an extended and uninterrupted placement at a radiation treatment unit. This period should include courses in radiation physics, radiation biology and radiation treatment.

During later stages of the training programme, ST doctors should be placed at units treating less common tumour forms.

Simultaneous additional training through service is particularly important within units that handle gynaecological cancers, and should ideally be held during the first half of the training programme with a view to commonly occurring haematological diseases and joint emergency duty. Other appropriate simultaneous additional training could be in one or more of the following: pain unit and palliative unit, pathology and cytology, radiology diagnostics, infectious diseases, and an organ-specific medical or surgical specialty.

Generally speaking it is important to try to achieve the most coherent placements possible. Communicative competence, leadership competence and competence within medical science and quality work should be initiated early on and should continue to feature as a natural and integrated element throughout the training.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	**Teaching methods**	**Follow-up**
To master the principles of chemotherapy and other forms of medical treatment of cancer	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 2	**Teaching methods**	**Follow-up**
To master external radiation treatment for common cancers, and to have an understanding of the physical and biological principles of radiation treatment	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 3	**Teaching methods**	**Follow-up**
To have knowledge of other radiation treatment modalities and techniques, as well as their theoretical foundations	Clinical service under supervision at a unit that handles these conditions or auscultation under supervision at a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor or certificate of successfully completed auscultation and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To be able to handle acute oncological conditions, common complications of cancer, and to be able to manage acute side effects of treatment	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To master diagnostics and the medical treatment of pain and other symptoms related to cancer, in the curative and the palliative phases	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To have an understanding of clinically relevant tumour biology, carcinogenesis and genetics	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To have an understanding of diagnostic methods including pathology, cytology and radiology diagnostics for investigation, diagnostics and follow-up of cancer	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To master the investigation and diagnostics of cancer to have an understanding of its aetiology and epidemiology and to master the principles of prevention and screening	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To master managing patients with common cancers, and the ability to initially manage other cancers, in the curative and the palliative phases	Clinical service under supervision at a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To be able to manage the follow-up of patients treated for cancer, after-effects of treatment, and initial rehabilitation	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To have an understanding of, and to be able to initially evaluate, gynaecological and haematologic malignancies, including common complications associated with them	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To have knowledge of techniques of nuclear medicine and their application	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of communication, both oral and written, with patients and their next of kin, as well as with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Seminar	

Intermediate objective 14	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Instruction under supervision	

Intermediate objective 15	Teaching methods	Follow-up
To be capable of professional development based on one's own requirements as well as those of the operation	Seminar	
	Large professional assembly	
	Theoretical studies	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management, and regulatory systems of health care	Course	Certificate of successfully completed course, issued by course leader

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor

Gynaecological oncology

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Introduction

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In each description of objectives, there is a section headed 'Training structure' which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competence

Definition of area of competence

Gynaecological oncology is a specialty with collected medical expertise in treating women with gynaecological cancers. A defining characteristic of the specialty is that diagnostics and treatment are based on the integration of gynaecological and oncological methods and skills. This requires an overall view involving knowledge of aetiology, epidemiology, tumour biology, prevention, targeted health controls, tumour diagnosis, treatment, follow-up and management of side effects of the illness and treatment including aspects concerning sexuality and fertility, rehabilitation, psychosocial care, and palliative measures, as well as care during the final stages of life. The area of competence incorporates a multidisciplinary work approach.

Gynaecological oncology is a branch specialty of the base specialty of oncology.

Competence requirements

Competence requirements for medical competence

Specialist competence in gynaecological oncology requires being able to independently investigate, treat and follow up on patients with gynaecological cancers in the curative and palliative phases. In order to achieve this the specialist must master gynaecological examination techniques and diagnostics, minor gynaecological surgery, and brachytherapy. Additionally, knowledge of the side effects of gynaecological oncological illness and treatment, including effects on sexuality and fertility, is required.

Specialist competence in gynaecological oncology additionally requires fundamental theoretical knowledge of epidemiology, aetiology, tumour biology, genetics, diagnostic methods, basic radiation physics and radiation biology, and oncological pharmacology. Mastering medical oncological treatment methods and radiotherapy is a further requirement. The qualified specialist must also be able to manage acute and chronic complications, and master care during the final stages of life based on a holistic view of the patient (intermediate objectives 1-7).

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact must be characterised by empathy and trust, as well as respect for patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competences. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and an understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to critically review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

Specialist medical training in gynaecological oncology can begin before, during or after specialist medical training in oncology, and may be integrated with it.

An uninterrupted period spent in inpatient oncological care should come early on in training, to provide a comprehensive picture of the panorama of cancers and of the complications of the illnesses as well as their treatment.

In order to benefit from the specialist training in the best possible way, ST doctors should receive an early introduction to medical oncological treatment and radiotherapy. Courses in pain management and palliative medicine should also be included during this period.

In the following stage, the service should be located at units treating the major forms of cancer. Courses in chemotherapy and other pharmacological oncological treatment should be included at this stage, as well as tumour-specific courses.

Radiation treatment is one of the cornerstones of oncological treatment and can ideally be dealt with around the middle of the training. It should take the form of an extended and uninterrupted placement at a radiation treatment unit. This period should include courses in radiation physics, radiation biology and radiation treatment.

Beginning the training in gynaecological oncology in the joint programme within a field that includes the common curative and palliative aspects can be advantageous.

In the training programme for gynaecological oncologists, simultaneous additional training through service in gynaecology should be held early, with the emphasis on common gynaecological diseases, gynaecological examination techniques, and minor surgical procedures, as well as placement at a unit where gynaecological tumour surgery is carried out.

Towards the end of the programme, the emphasis should be on training in brachytherapy at a unit where such therapy is practised.

Generally speaking it is important to try to achieve the most coherent placements possible. Communicative competence, leadership competence and competence within medical science and quality work should be initiated early on and should continue to feature as a natural and integrated element throughout the training programme.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	**Teaching methods**	**Follow-up**
To master the principles of chemotherapy and other forms of medical treatment of cancer	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 2	**Teaching methods**	**Follow-up**
To master external radiation treatment for common cancers, and to have an understanding of the physical and biological principles of radiation treatment	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 3	**Teaching methods**	**Follow-up**
To have knowledge of other radiation treatment modalities and techniques, as well as their theoretical foundations	Clinical service under supervision at a unit that handles these conditions or auscultation under supervision at a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor or certificate of successfully completed auscultation and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To be able to handle acute oncological conditions, common complications of cancer, and to be able to manage acute side effects of treatment	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To master diagnostics and the medical treatment of pain and other symptoms related to cancer, in the curative and the palliative phases	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To have an understanding of clinically relevant tumour biology, carcinogenesis and genetics	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To have an understanding of diagnostic methods including pathology, cytology and medical imaging and technology diagnostics for investigation, diagnostics and follow-up of cancer	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To master the investigation and diagnostics of gynaecological cancer, and to have an understanding of its aetiology and epidemiology, as well as of the principles of prevention and screening	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To master managing patients with gynaecological cancers in the curative and the palliative phases	Clinical service under supervision at a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To be able to manage follow-up of patients treated for gynaecological cancer and the after-effects of treatment, as well as being able to initiate rehabilitation while taking reproductive, endocrine and sexual aspects into account	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To master the technique of gynaecological brachytherapy, and the ability to evaluate the extent of the treatment area	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To master gynaecological examination techniques and minor gynaecological procedures, and to have an understanding of gynaecological tumour surgery and postoperative complications	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of communication, both oral and written, with patients and their next of kin, as well as with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Seminar	

Intermediate objective 14	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised Instruction under supervision	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 15	Teaching methods	Follow-up
To be capable of professional development based on one's own needs and the requirements of the operation	Seminar	
	Large professional assembly	
	Theoretical studies	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management, and regulatory systems of health care	Course	Certificate of successfully completed course, issued by course leader

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor

Infectious diseases

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Introduction

On June 24, 2008, The National Board of Health and Welfare (Socialstyrelsen) decided to issue new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists of a general part with common provisions for all specialties and a specific part with all the descriptions of objectives. The description of objectives for the respective specialties should be understood against the background of the provisions in the general part.

In each description of objectives, there is a section headed 'Training structure' which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competence

Definition of area of competence

The specialty of infectious diseases encompasses in-depth knowledge of prevention, investigation, diagnostics, treatment, and follow-up of infections from a national and an international perspective. The specialty encompasses both acute and chronic infections. It serves as support to other specialties regarding complicated infection issues.

The area of competence involves in-depth knowledge of the care and isolation of patients with infectious diseases, the rational use of antimicrobial therapy, and knowledge of the epidemiological situation. This presupposes close cooperation with disease prevention and control agencies, infection control and clinical microbiology.

Competence requirements

Competence requirements for medical competence

Specialist competence in infectious diseases requires the medical competence necessary to be able to work independently in the area and offer expert assistance on infection issues to other specialties.

Specialist competence requires knowledge of investigation, diagnostics, treatment, follow-up and prevention of infectious diseases contracted both in Sweden and abroad. This includes the initial management of acute, life-threatening infections. Additionally, sound knowledge is required of microbiology, epidemiology, care-related infections, prevention of infections and the spreading of infections, disease control, the rational use of antibiotics, and problems related to resistance.

Specialist competence further requires knowledge of how to manage and prevent infection in patients with an increased risk of infection. Additionally, knowledge of how to individualise treatment in consideration of age and other conditions is required.

Further, expertise in being able initially to manage acute, life-threatening non-infectious conditions, as well as being able to manage relevant illnesses within the field of internal medicine, is required.

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact must be characterised by empathy and trust, as well as respect for patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin must be characterised by understanding of and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competences. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional ethics and approach

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and an understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must have developed the capability of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to critically review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

Training in infectious diseases should be held at a unit with both inpatient and outpatient care of infectious diseases. Since the objective is to acquire comprehensive expertise, the service may need to be supplemented with placement at another infection clinic in order for ST doctors to acquire more in-depth knowledge of special areas or a broader knowledge of common infectious diseases. Uninterrupted periods of service should be the goal in the various clinical service placements.

In the early stages of training, emphasis should be on managing common acute infectious diseases. This includes initial management of seriously ill patients and participation in emergency duty. Training should then become more in-depth and be supplemented with service in other sections or activities. Within the operations, service as general infection consultant should be offered at the end of the training, as well as service through which ST doctors will obtain insight into specialised clinic and consultancy activities. Supplementary service abroad may provide valuable knowledge and perspectives.

Simultaneous additional training through service in the microbiology area is important for obtaining more in-depth knowledge of diagnostic methods and microbiological agents.

Internal medicine issues are common within the specialty, which means that simultaneous additional training through service in internal medicine and its branch specialties is very important. Paediatrics and intensive care are suitable for simultaneous additional training through service, but other supplementary programmes may also be considered. Infection prevention and control are other activities with which the infectious disease specialist often comes into contact, and where more in-depth knowledge is required.

Theoretical training is done partly through individual study and through the host clinic's internal training programme, where ST doctors are expected to participate and contribute actively. ST doctors are also expected to attend several national courses. Essential courses in this category include antimicrobial therapy and tropical diseases. During training, ST doctors should be given the opportunity to participate in a large professional assembly. It is also important that doctors acquire the ability to evaluate scientific articles, as well as knowledge of scientific methods and routines. This may be achieved in various ways, ranging from projects and quality management within the clinic's area of activity to research projects tied to universities.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To master investigation and treatment of endemic, community-acquired infections	Clinical service under supervision at a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar	
	Theoretical studies	

Intermediate objective 2	Teaching methods	Follow-up
To master the investigation and treatment of infections acquired abroad, and to have knowledge of the global infection panorama	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To master the initial reception and care of acute life-threatening infections	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To master the prevention of infections, and disease control	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To master the treatment of infectious agents, and to have an understanding of their resistance	Clinical service under supervision in a unit that handles these issues	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To master the selection of diagnostic methods for infectious agents, and to be able to evaluate diagnostics results	Clinical service under supervision at a unit that handles these issues	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To master work as an expert on infection issues concerning patients being managed within another specialty	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Auscultation under supervision in a unit where such operations are practised	
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To be able to handle treatment and prevention of infections in patients with an increased infection risk	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To be able to handle patients with care-related infections and infectious complications of surgery	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To be able to initially handle acute life-threatening non-infectious conditions	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To be able to handle relevant illnesses within the field of internal medicine	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To be able to handle infections in an individualised manner, taking age and other conditions into account	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin	Clinical work under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communicating with, informing, and instructing patients, their next of kin, other doctors and co-workers, and students, both in writing and orally	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 15	Teaching methods	Follow-up
To be capable of a professional and ethical approach	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management, and regulatory systems of health care	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medical scientific outlook and approach	Course	Certificate of successfully completed course, issued by course leader
	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor
	Seminar	

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Course	Certificate of successfully completed course, issued by course leader
	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor
	Seminar	

Intermediate objective 21	Teaching methods	Follow-up
To have an understanding of research methodology	Course or seminar	Certificate of successfully completed course, issued by course leader

Clinical genetics

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Introduction

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In each description of objectives, there is a section headed 'Training structure' which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

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the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competence

Definition of area of competence

The specialty of clinical genetics encompasses diagnostics and management of genetically conditioned diseases, as well as genetic guidance in the event of such diseases. The activity encompasses all age groups and addresses all medical specialties in which genetic issues occur.

Competence requirements

Competence requirements for medical competence

Specialist competence in clinical genetics requires knowledge of medical genetics and competence in the interpretation of laboratory analyses, in clinic, consultancy and training operations, and in development work. More specifically, the clinical genetics specialist must be well versed in the principles of genetic diagnostics in order to be able to use various diagnostic methods, to be able to interpret the results, and have practical skill in the management of genetic investigations regarding both hereditary and acquired genetic conditions, and in prenatal diagnostics.

The medical specialist must also have the ability to provide genetic guidance and to serve as consultant regarding genetic issues across the entire field of medicine. Additionally, the specialist must be well versed in genealogical tree analysis and database management, and must have overall knowledge of complex genetics.

The specialist must further be capable of speaking with patients about life-determining issues while taking ethical principles and values into account. An additional requirement is the ability to follow the development of knowledge and be up to date about current research in the field, as well as the ability to use new knowledge and methods to change forms and content in professional practice.

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact must be characterised by empathy and trust, as well as respect for patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competences. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and an understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to critically review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

Specialist training is carried out principally at a health care unit for clinical genetics. In order to achieve broad knowledge of genetic diagnostics, ST doctors should acquire laboratory diagnostics competence in both cytogenetics and molecular genetics. Management of genetic investigations, of both hereditary and acquired genetic conditions, should be done with increasing independence during training. Genetic guidance of increasing complexity is also an important part of training. The order in which individual ST doctors do in-depth studies for the various intermediate objectives within the area of competence will depend on previous experience and current focus.

Certain elements of service may need to be done at another clinical genetics unit in order for ST doctors to achieve particular intermediate objectives. It is further important to do supplementary service or auscultation in other specialty areas in order for ST doctors to deepen their expertise in clinical genetics. This is important in patient care activities such as paediatrics, gynaecology and obstetrics, neurology, oncology and haematology, as well as in laboratory activities such as clinical pathology and clinical chemistry. Research experience should also form a natural part of the training programme.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	**Teaching methods**	**Follow-up**
To have an understanding of medical genetics, cytogenetics and molecular biology	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 2	**Teaching methods**	**Follow-up**
To master genetic diagnostics and investigation, and to have an understanding of the treatment and prevention of hereditary genetic conditions	Clinical service under supervision at a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 3	**Teaching methods**	**Follow-up**
To master genetic diagnostics and investigation, and to have an understanding of the treatment and prevention of acquired genetic conditions	Clinical service under supervision at a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To master genetic laboratory diagnostics	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To be able to initially handle syndrome investigation	Clinical service under supervision in a unit where such operations are practised or auscultation under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor or certificate of successfully completed auscultation and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To master prenatal diagnostics, and to have an understanding of preimplantation genetic diagnostics	Clinical service under supervision in a unit where such operations are practised or auscultation under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor or certificate of successfully completed auscultation and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To master genetic guidance for individuals and families	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To master genealogical tree analysis and risk assessment	Clinical service under supervision in a unit that handles these issues	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 9	Teaching methods	Follow-up
To master using databases as a diagnostic aid	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 10	Teaching methods	Follow-up
To be able to manage genetic consultation in health care	Clinical service under supervision in a unit where such operations are practised or auscultation under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor or certificate of successfully completed auscultation and competence achieved, issued by current mentor
	Large professional assembly	
	Diagnostics and treatment conference	

Intermediate objective 11	Teaching methods	Follow-up
To have an understanding of complex genetic relationships	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To have an understanding of how research results can be clinically applied	Clinical service under supervision in a unit where such operations are practised or auscultation at a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor or certificate of successfully completed auscultation and competence achieved, issued by current mentor
	Large professional assembly	
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Sitting-in	
	Theoretical studies	

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Large professional assembly	

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Instruction under supervision	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	
	Theoretical studies	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as in a team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management, and regulatory systems of health care	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	
	Theoretical studies	

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor
	Seminar	
	Theoretical studies	

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor
	Large professional assembly	
	Theoretical studies	

Intermediate objective 21	Teaching methods	Follow-up
To have an understanding of research methodology	Course	Certificate of successfully completed course, issued by course leader
	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor
	Theoretical studies	

Occupational and environmental medicine

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Competence within medical science and quality work

Introduction

On June 24, 2008, The National Board of Health and Welfare (Socialstyrelsen) decided to issue new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists of a general part with common provisions for all specialties and a specific part with all the descriptions of objectives. The description of objectives for the respective specialties should be understood against the background of the provisions in the general part.

In each description of objectives, there is a section headed 'Training structure' which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competence

Definition of area of competence

The specialty of occupational and environmental medicine encompasses in-depth knowledge of and proficiency in how factors in the physical environment in general and in the work environment affect the health and functional and occupational abilities of individuals and groups within the population, as well as investigation, treatment and follow-up of certain environment-related illnesses and injuries. The specialty focuses on evaluating connections between the environment and health, and also includes prevention, occupational rehabilitation, evaluation of work capacity and other health promotion work. This means that the area of competence covers a wide area which includes occupational and environmental medicine as well as occupational health care. The activity is characterised by the integration of medical knowledge with knowledge of work organisation, behavioural science, ergonomics, chemistry, technology and toxicology, and by the coordination of resources and knowledge from various areas of medical activity with those of other sectors of society.

Competence requirements

Competence requirements for medical competence

Specialist competence in occupational and environmental medicine requires being capable of mastering the evaluation of connections, for groups as well as for individuals, between ill health and exposure to biological, ergonomic, physical, chemical, organisational and psychosocial factors in the work environment, and between ill health and exposure in the environment in general. Another requirement is the ability to carry out statutory medical controls and employability assessments, as well as to devise and carry out group examinations with the aim of charting connections between ill health and exposure. Being capable of mastering the evaluation of individual work capacity is further required.

This in turn requires knowledge of the evaluation, investigation and treatment of common illnesses in the working population, as well as of occupational rehabilitation. Skill is further required in health promotion and preventive work at the organisational, group and individual levels. To master evaluating connections between ill health and exposure, knowledge of the identification, evaluation, and control of risk factors in the work environment and in the general environment, as well as of all applicable legislation, is additionally required.

Further, a high level of competence in acting as an independent and advisory expert is required. The specialist must additionally master such medical ethical issues as may arise in the relationship with employers or with other parties outside of health and medical care.

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact must be characterised by empathy and trust, as well as respect for patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competences. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have the pedagogical ability to inform and instruct not only patients and their next of kin, but also other doctors, co-workers and students, as well as the various groups in working life, and the general public.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for

the best possible patient care, as well as being able to correctly evaluate the influence of various environmental factors on health.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and an understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the team or health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health care, as well as its governance, in order to make the best use of resources. The doctor with specialist competence must also have an understanding of public authorities and organisations in the areas of environment and health.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to critically review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

Ideally, the specialist training programme begins and ends with service within the two main areas of the specialty, i.e. occupational and environmental medicine and occupational health care.

During service at an occupational and environmental medicine unit, it is important that ST doctors independently manage a number of clinical patient investigations and also take part in workplace visits.

Additionally, ST doctors should participate in various investigations into exposure and morbidity in workplaces, as well as in environmental medicine investigations that include risk assessment and providing risk information to the affected parties. In this part of the clinical service, ST doctors should also carry out projects that can be presented as scientific reports. It is also important that ST doctors are able to take part in the clinic's training and information activities.

During clinical service in occupational health care, ST doctors should independently manage a number of clinical patient investigations and work with occupational rehabilitation and evaluations of work capacity. During service, it is of the utmost importance that ST doctors participate in the client company's work environment efforts and contribute actively to its training activities. ST doctors should also take part in carrying out statutory medical controls and requisite employability assessments. Additionally, ST doctors should carry out, compile, and report on a group investigation.

The specialty requires broad basic medical competence. For this reason, simultaneous additional training through clinical service in family medicine, internal medicine and psychiatry is of the utmost importance. Other simultaneous additional training through clinical service which can be valuable for ST doctors includes dermatology, clinical physiology, neurology, orthopaedics, orthopaedic medicine and physiotherapy and rehabilitation.

ST doctors should acquire knowledge of other relevant areas not covered by the aforementioned clinical service by means of various separate course elements. Courses and theoretical studies are suitably integrated with the current clinical service in order to spread these elements out over the course of the training.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	**Teaching methods**	**Follow-up**
To master evaluating connections between ill health and exposure in the work environment and in the environment in general	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 2	**Teaching methods**	**Follow-up**
To master evaluation of individual work capacity and occupational rehabilitation	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 3	**Teaching methods**	**Follow-up**
To master carrying out statutory medical controls and, where applicable, employability assessments	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	

Intermediate objective 4	Teaching methods	Follow-up
To master medical ethical issues in relation to both employers and other parties outside of health and medical care	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Sitting-in	

Intermediate objective 5	Teaching methods	Follow-up
To master carrying out group investigations and to master reporting back to the affected parties	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor

Intermediate objective 6	Teaching methods	Follow-up
To master devising medical examinations or other charting of ill health based on current exposure	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor
	Teamwork under supervision	

Intermediate objective 7	Teaching methods	Follow-up
To be able to manage clinical investigations of patients with conditions related to exposure in the work environment or the general environment	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To be able to initially handle common medical conditions in the working population	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Diagnostics and treatment conference	

Intermediate objective 9	Teaching methods	Follow-up
To be able to evaluate investigations of exposure conditions in different environments, and measures to influence them	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To have an understanding of the organisation's effect on individuals and groups, and of health promotion and preventive work	Clinical service under supervision in a unit that handles these issues	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To have an understanding of the identification, evaluation and control of risk factors in work and wider environments	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To have an understanding of work environment and health and safety legislation, and of other applicable legislation	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin	Clinical work under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Teamwork under supervision	

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing patients, their next of kin, other doctors, co-workers, and students, as well as the various groups in working life and the general public	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Instruction under supervision	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as in a team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Teamwork under supervision	

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management, and regulatory systems of health care, as well as of public authorities and organisations within the environment and health sectors	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor
	Seminar	

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of research methods, including basic concepts of epidemiology, and of methods for evidence-based medicine and the review of scientific information	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor
	Seminar	

Intermediate objective 21	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor

Dermatology and venereology

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Introduction

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In each description of objectives, there is a section headed 'Training structure' which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competence

Definition of area of competence

The specialty of dermatology and venereology encompasses in-depth knowledge of aetiology, pathomechanisms, epidemiology, investigation, diagnostics, treatment, follow-up and rehabilitation of skin and venereal diseases in children and adults. This also includes preventive measures against the emergence and spread of such diseases.

The specialty covers treatment of both acute and chronic diseases in patients of all ages. Diagnostics are largely based on case history and clinical examination, supplemented with histopathological, physiological, chemical, microbiological, allergological, immunological and genetic examinations. Treatment methods comprise drugs, light and surgery. Contact tracing, psychosocial measures, and prevention play essential roles.

Knowledge of how skin and venereal diseases affect the individual and society is important, as is the capability of collaborating with other professional groups in health care, social services, the Social Insurance Office, public authorities in occupational care, occupational health care, and primary care. Further, collaboration with other specialties is necessary.

Competence requirements

Competence requirements for medical competence

Specialist competence in dermatology and venereology requires all-round, broad knowledge of skin biology, epidemiology, pathophysiology, and of diagnostics and treatment of diseases of the skin and genitals. Another requirement is a good level of practical skill in the majority of existing examination and treatment methods.

Further, the specialist must be able independently to manage psoriasis, eczema, skin tumours, dyshidrosis, other autoimmune diseases of the skin and photodermatoses, age-related skin complaints, skin infections, varicose ulcers and vascular diseases, drug allergies and urticaria, occupation-related skin problems, skin manifestations in inflammatory system diseases, internal diseases, mental illness, the most common genetic dermatoses, and sexually transmitted infections including initial handling of HIV infection.

Specialist competence further requires good knowledge and experience of medical conditions on the borders of other specialties, including experience of consulting work in a hospital, current legislation on infectious disease prevention and control and current social insurance legislation, as well as being informed about rare skin diseases, advanced diagnostic and operative methods, and about the socio-economic aspects of skin and venereal diseases. Finally, in-depth knowledge of the opportunities for preventing disease and injury is required.

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact must be characterised by empathy and trust, as well as respect for patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competences. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and an understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to critically review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

The service should be planned in such a way that ST doctors initially have the opportunity of evaluating most patients in close consultation with a specialist. In the outpatient placement, particular emphasis should be placed on training in skin surgery. The specialist medical training service should also include clinical service in dermatological inpatient care, in order to meet the training requirements regarding investigation and treatment of rare and serious conditions, advanced treatment methods, and familiarity with conditions within internal medicine. It is suitable for the inpatient placement to fall during the first half of clinical service.

The second half of clinical service should include placement at a unit where occupational medicine or occupational dermatology is practised.

It is important that ST doctors continually be given opportunities to train in the skill of making independent evaluations as a hospital consultant throughout the training programme.

Theoretical studies should be pursued in parallel with the clinical service. ST doctors should also participate in supplementary training in the form of courses and conferences. Training may be supplemented with simultaneous additional training through service in adjacent fields of knowledge: internal medicine, surgery, infection, rheumatology or pathology. Courses in histopathology and dermatoscopy, dermatological surgery, STI and dermatology in adjacent fields should be included, as should courses in occupational skin and sores, and skin and psyche.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To have an understanding of the skin's basic biology, pathophysiology and morphology	Seminar	
	Theoretical studies	

Intermediate objective 2	Teaching methods	Follow-up
To have an understanding of the occurrence and distribution of the various dermatological and venereal diseases in the population	Seminar	
	Theoretical studies	

Intermediate objective 3	Teaching methods	Follow-up
To master dermatological and venereological examination techniques and terminology	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To master common and frequently occurring dermatological and venereal diseases	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Large professional assembly	
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To be able to manage histopathological opinions and to have an understanding of dermatopathology	Clinical service under supervision in a unit that handles these issues	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To be able to handle immunological diagnostics and to have an understanding of the immunological and inflammatory processes in skin diseases	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To master diagnostics and treatment, including skin surgery, of common and important skin tumours and vascular deformities	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To master pathophysiology, diagnostics, and therapy as regards the healing of wounds	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To master local and system treatment, including phototherapy, for dermatological conditions	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To master sexually transmitted infections, common and frequently occurring genital dermatoses, and proficiency in microbiological diagnostics	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 11	Teaching methods	Follow-up
To be able to handle work-related skin diseases, including the adaptation of work routines, rehabilitation and medico-actuarial science in cooperation	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To be able to initially manage common conditions in adjacent fields of knowledge	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin	Clinical work under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Instruction under supervision	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management, and regulatory systems of health care	Course	Certificate of successfully completed course, issued by course leader

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of quality and development work

Intermediate objective 21	Teaching methods	Follow-up
To have an understanding of measures to prevent disease	Clinical service under supervision in a unit that handles these issues	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Rheumatology

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Training structure
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Medical competence
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Leadership competence
Competence within medical science and quality work

Introduction

On June 24, 2008, The National Board of Health and Welfare (Socialstyrelsen) decided to issue new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists of a general part with common provisions for all specialties and a specific part with all the descriptions of objectives. The description of objectives for the respective specialties should be understood against the background of the provisions in the general part.

In each description of objectives, there is a section headed 'Training structure' which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competence

Definition of area of competence

The specialty of rheumatology encompasses knowledge and skills concerning medical diseases of the motor organs and systemic inflammatory and autoimmune diseases in adults. The area of competence comprises both inflammatory and non-inflammatory conditions of the motor organs, but the specialty deals principally with inflammatory diseases in and outside of the joints.

These diseases may be acute and temporary in character, recurring, or may develop into chronic conditions. Both disease and treatment sometimes require follow-up over an extended period of time due to risk of relapse and complications. Diagnostics are done above all through medical history and status, in combination with immunological, imaging and laboratory methods. Treatment often includes both immune modulation and pain relief, frequently in combination with physical training.

Rheumatic diseases can afflict people of all ages, and often affect their situation and quality of life considerably. The specialty is characterised by long-term, patient-centred cooperation with other specialties and professional expertise.

Competence requirements

Competence requirements for medical competence

Specialist competence in rheumatology requires knowledge and skills allowing the specialist to carry out independent work. The requirements comprise knowledge of aetiology, immunology, pathology, investigation, diagnostics, treatment, evaluation and follow-up of acute and chronic inflammatory joint and back illnesses, inflammatory system diseases and vasculitis. The medial specialist must also be able to manage non-inflammatory illnesses of the joints and soft parts in terms of diagnostics and initial treatment.

The depth of knowledge must be greatest for inflammatory rheumatic illnesses and must reflect occurrence and severity in terms of morbidity and mortality. Knowledge of those organ systems that may be affected in case of rheumatic illness, and how to examine them, is also required. In particular, knowledge of the anatomy and pathology of the motor organs is required.

The medical specialist must further be able to carry out and interpret detailed joint and back examinations, and be able to show practical knowledge of joint injection techniques. Knowledge of immunological and inflammatory processes against the background of the pathophysiology of rheumatic illnesses is also required. Additionally, knowledge of the mechanisms of action, indications, effects and side effects of drugs used in rheumatology is required.

In order to be able to take care of complications of rheumatic illnesses and carry out differential diagnostics with other specialties, the medical specialist must be able to initially handle common conditions in adjacent fields

of knowledge. It is of particular importance that the medical specialist is able to handle acute internal medicine conditions.

As the majority of rheumatic illnesses are chronic, expertise is also required in managing patients with long-term illnesses with a holistic perspective that includes both psychosocial and medical aspects. This means that ST doctors are familiar with the rheumatology team's areas of competence and with current rehabilitation methods, and that they have an understanding of the treatment possibilities in surgical rheumatology. Further, experience of cooperating with the Social Insurance Office, the Employment Service and other stakeholders significant for the patient's health is required.

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact must be characterised by empathy and trust, as well as respect for patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competences. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and an understanding of their own functions and roles in the organisation. Mentoring skills Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient

safety, patient benefit, measurability, and teaching management in order to be able to critically review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

The clinical part of the training programme is based mainly on clinical service at a nursing ward and health centre where rheumatology care is practised. Initially, clinical service should be planned such that ST doctors acquire knowledge of the most common illnesses within the specialty. It is therefore best if the the first placement is in rheumatology. Early on in the training programme, ST doctors should also be introduced to working in rheumatological outpatient care, and should acquire skills in joint and back examination techniques, as well as injection technique.

In order to meet the training requirement regarding investigation and treatment of rare rheumatological illnesses and advanced treatment methods, it is important to have an extended and uninterrupted period of service in inpatient care at a regional or university hospital. It is suitable for this period to come at the end of the training programme. During training, ST doctors should also be given the opportunity of taking part in rheumatological consultancy in primary care or the equivalent.

Simultaneous additional training and courses should be chosen so that they are relevant for the panorama of rheumatological illness. Simultaneous additional training should include clinical service at an internal medicine emergency ward. Other suitable clinical service areas include internal medicine and its branch specialties, infectious diseases, neurology, skin diseases, clinical immunology, medical rehabilitation, orthopaedic surgery and hand surgery. It is an advantage if the supplementary training in medical rehabilitation, orthopaedic surgery and hand surgery is done as part the placement at a rheumatological clinic, if the clinic has its own rehabilitation resources and if evaluations are done together with an orthopedist and a hand surgeon, respectively.

ST doctors should acquire theoretical knowledge through relevant textbooks, scientific journals and courses planned in concert with the clinical service. A scientific approach, with medical literature studies, should be introduced early and continue throughout the training programme. Additionally, courses on inflammatory joint illnesses and basic inflammation and immune reactions should come early in the training. ST doctors should also be given the opportunity of participating in an international congress during the training programme.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	**Teaching methods**	**Follow-up**
To master the investigation, diagnostics, treatment and follow-up of acute and chronic inflammatory joint and back illnesses in adults	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Sitting-in	
	Theoretical studies	

Intermediate objective 2	**Teaching methods**	**Follow-up**
To master investigation, diagnostics, treatment, and follow-up of the most commonly occurring acute and chronic inflammatory system diseases and vasculitis in adults	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	
	Sitting-in	
	Theoretical studies	

Intermediate objective 3	**Teaching methods**	**Follow-up**
To be able to initially handle rheumatological system diseases and to have an understanding of their long-term management	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To master detailed joint and back examination, and injection technique	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Sitting-in	
	Theoretical studies	

Intermediate objective 5	Teaching methods	Follow-up
To master differential diagnostics and initial handling of other illnesses with symptoms and findings from the motor apparatus	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Theoretical studies	

Intermediate objective 6	Teaching methods	Follow-up
To master indications, effects and side effects, and to have an understanding of mechanisms of action and interaction for drugs used in rheumatology	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar	
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To be able to handle patients with long-term rheumatic illness with a holistic outlook, including both psychosocial and medical consequences	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Health care team work under supervision	
	Theoretical studies	

Intermediate objective 8	Teaching methods	Follow-up
To have an understanding of the immunological and inflammatory processes in rheumatic illness, and to be able to handle immunological diagnostics	Clinical service under supervision at a unit that handles these conditions or auscultation under supervision at a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor or certificate of successfully completed auscultation and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 9	Teaching methods	Follow-up
To be able to evaluate indications and results of imaging, physiological and laboratory diagnostics	Clinical service under supervision at a unit that handles these conditions or auscultation under supervision at a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor or certificate of successfully completed auscultation and competence achieved, issued by current mentor
	Diagnostics and treatment conference	
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To be able to evaluate the need for rheumatological rehabilitation and surgical rheumatology	Clinical service under supervision at a unit that handles these conditions or auscultation under supervision at a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor or certificate of successfully completed auscultation and competence achieved, issued by current mentor
	Health care teamwork under supervision	
	Diagnostics and treatment conference	
	Sitting-in	

Intermediate objective 11	Teaching methods	Follow-up
To be able to initially handle acute medical conditions within internal medicine	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course or seminar	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 12	Teaching methods	Follow-up
To be able to initially handle common conditions in adjacent fields of knowledge	Clinical service under supervision in a unit that treats these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Seminar	
	Theoretical studies	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin	Clinical work under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Sitting-in	

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Instruction under supervision	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Health care teamwork under supervision	

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management, and regulatory systems of health care	Course	Certificate of successfully completed course, issued by course leader

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor
		Seminar

Social medicine

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Introduction

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In each description of objectives, there is a section headed 'Training structure' which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

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a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competence

Definition of area of competence

The specialty of social medicine encompasses expertise in the interaction of people's health and sickness with the surrounding community.

Social medicine is characterised by knowledge of determinant factors for health such as social and psychosocial reasons for ill health and disease, the significance of the social structure, the environment, the health care systems, working life and people's living conditions and ways of life for the health of different groups, and the distribution of health in the population, as well as the social consequences of illness. Social medicine also includes clinical knowledge of widespread diseases, particularly among marginalised groups.

Such social medicine expertise and skills in epidemiology as well as health promotion and disease prevention are an important resource in health and medical care. With a background in health care and medicine, social medicine contributes expert knowledge of public health efforts and global health, and the planning, organisation, development and evaluation of health and medical care, as well as of society's other sectors.

Competence requirements

Competence requirements for medical competence

Specialist competence in social medicine requires fundamental knowledge and skills in the four principal areas of competence in social medicine: epidemiology, health and medical care research, administrative medicine, and public health and prevention.

The medical specialist must further be able to independently map, monitor and analyse the health situation and determinant factors for health and disease in the population; plan, implement and evaluate health promoting and disease preventive actions; analyse social consequences of disease and ill health; analyse and propose measures against inequality in health; and monitor health development in society's vulnerable groups; as well as follow and communicate research in the social sciences and medicine on mechanisms for health and disease. In addition to this

the medical specialist must be able to independently initially manage common, acute and chronic medical conditions, primarily among marginalised groups.

Further requirements include good knowledge of the management, control, organisation and health orientation of health and medical care, of the methods of health economy and their application, and of social insurance systems and medico-actuarial science. Some experience of analysing and prioritising health care and rehabilitation needs; of planning and evaluating

the effect of health care and rehabilitation efforts at the individual, group and population levels; and of teaching and spreading knowledge in other forms is also required.

Finally, the medical specialist must have knowledge of or have been involved with research projects concerning epidemiology, health promoting and preventive actions or health and medical care research, international cooperation projects on social medicine issues, method development in the area of competence of social medicine, policy work in health promotion, the working methods of social services, and the medical conditions of marginalised groups.

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact must be characterised by empathy and trust, as well as respect for patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural and multicultural aspects such as age, language, ethnicity, sexual orientation and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must be capable of communicating, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competences. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and an understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and operational development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, management, finances, and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in and lead continuous systematic quality improvement, emphasising patient and public health utility, patient safety, a holistic perspective and efficiency.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

Theoretical knowledge is mainly to be provided through courses in social medicine and public health science, with a qualification equivalent to a Master's degree. ST doctors will acquire practical skills in social medicine by means of supervised clinical service in the four principal areas of competence of the specialty: epidemiology, health and medical care research, administrative medicine, and public health and prevention.

It is recommended that the training programme be completed mainly at a social medicine unit or equivalent, and that it be suitably interspersed with the necessary theoretical training and with clinical service involving patient care within specialties that deal with widespread diseases and the illnesses of marginalised groups, both in inpatient and outpatient care.

It is recommended that ST doctors begin clinical service at a social medicine unit, while attending courses in fundamental subjects of the specialty in parallel.

After this, ST doctors can carry out an independent project in the public health area, at a level equivalent to a Master's degree. Clinical service involving patient care should be done in parallel with this. ST doctors should then continue his or her clinical service at a social medicine unit, interspersed with courses.

Further work is then done at a social medicine unit, interspersed with courses in leadership and communication, and clinical service involving patient care.

The training programme ideally ends with clinical service involving patient care.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	Teaching methods	Follow-up
To master mapping and analysis of the health situation and determinant factors for health and disease in the population	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 2	Teaching methods	Follow-up
To master analysing the causes of health inequality, and to be able to manage measures against health inequality	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 3	Teaching methods	Follow-up
To master health development in society's marginalised groups, and to have knowledge of the work and methods of social services	Auscultation under supervision at a unit where such operations are practised	Certificate of successfully completed course, issued by course leader
	Course	

Intermediate objective 4	Teaching methods	Follow-up
To master the application of health economy methods, and to have an understanding of the management, control and organisation of health and medical care	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 5	Teaching methods	Follow-up
To be able to handle quality improvement aimed at making health and medical care better at promoting health	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 6	Teaching methods	Follow-up
To master the application of the social insurance system and medico-actuarial science, and to have an understanding of the social consequences of disease and ill health	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 7	Teaching methods	Follow-up
To master the planning, implementation, and evaluation of health promoting actions at the individual, group and society levels	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 8	Teaching methods	Follow-up
To master planning, implementation, and evaluation of preventive actions at the individual, group and society levels	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 9	Teaching methods	Follow-up
To have knowledge of international social medicine projects	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 10	Teaching methods	Follow-up
To be able to handle common acute and chronic medical conditions, in particular medical problems, in marginalised groups	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 11	Teaching methods	Follow-up
To master research in social science, behavioural science, and medicine on mechanisms of health and illness	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Communicative competence

Intermediate objective 12	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor

Intermediate objective 13	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Instruction under supervision	

Intermediate objective 14	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Instruction under supervision	

Leadership competence

Intermediate objective 15	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers, as well as students	Service under supervision in a unit where such operations are practised	Certificate of successfully completed service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 16	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Health care teamwork under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To have an understanding of the organisation, management, and regulatory systems of health care	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Competence within medical science and quality work

Intermediate objective 18	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Service under supervision in a unit where such operations are practised	Certificate of successfully completed service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor

Intermediate objective 19	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Course	Certificate of successfully completed course, issued by course leader
	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor

Additional specialties

Emergency medicine

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Introduction

On June 24, 2008, Socialistyrelsen decided to issue new regulations and general guidelines for doctors' specialist medical training (SOSFS 2008:17). The statute consists of a general part with common provisions for all specialties and a specific part with all the descriptions of objectives. The description of objectives for the respective specialties should be understood against the background of the provisions in the general part.

In each description of objectives, there is a section headed 'Training structure' which constitutes general guidelines. The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competence

Definition of area of competence

The emergency medicine specialty comprises investigation, diagnostics, and treatment, as well as follow-up, of acute medical conditions and accidents in all age groups. Emergency medicine comprises the capability of applying broad differential diagnostic knowledge in a limited time and with limited background information on the patient, and being able to prioritize and coordinate health care efforts based on the patient's condition and available resources.

Furthermore, emergency medicine comprises assessing the risks and benefits of various management alternativess, as well as multidisciplinary collaboration with other specialties and professions within the health care organisation. Emergency medicine also includes pre-hospital work, leading health care efforts in situations where the need for health care initially exceeds the available resources, and preventive work through epidemiological knowledge. Emergency medicine is an additional specialty to base specialties in accordance with Chapter 5, Section 2 or 3 of the regulations.

Competence requirements

Competence requirements for medical competence

The capability of being able to identify, prioritise, stabilise, and treat patients with unstable vital functions and life-threatening acute medical conditions, both pre-hospital and in hospital, is required for specialist competence in emergency medicine.

Furthermore, being able to independently prioritize, investigate, and based on a probability assessment treat patients with acute medical conditions of all ages, and with every foreseeable reason to contact an emergency ward. Epidemiological knowledge and a capability of working preventively are required for this. Moreover, the capability of also assessing the risks and benefits of various management alternativess from a perspective of ethics, patient safety, and logistics is required.

Being able to plan for the patient's continued care is also required for specialist competence in emergency medicine, which means being responsible for medically safe transport and being able to plan follow-up both within and outside one's own health care unit. A capability for leadership, communication, and a multidisciplinary work method under stress is further required.

Moreover, specialist competence in a base specialty is required for specialist competence in emergency medicine in accordance with Chapter 5, Section 2 or 3 of the regulations.

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for the patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural aspects and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must have the ability to communicate, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competencies.
The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying their own needs for professional development, in addition to operational requirements, in order to be able to meet requirements for the best possible patient care.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership characterised by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology, including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have an understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

Specialist medical training in emergency medicine can begin before, during, or after specialist medical training in the base specialty and can be integrated with it.

It is desirable that specialist medical training constitute a logically clear and continuous in-service training. The training is to be adapted to the individual doctor's background.

ST doctors should be trained to identify and handle life-threatening conditions early on in the training. Thereafter, the training should concentrate on handling patients based on symptoms at presentation with a development of proficiency in differential diagnostics and probability assessment.

The development of leadership in emergency situations should occur gradually from leadership in individual patient cases to leadership comprising skill in controlling resources and the flow of patients in the emergency ward and at the accident site.

The primary competence is best acquired through clinical service in an emergency ward where the patients are not sorted according to other medical specialties. The service should comprise handling of acutely ill patients of all ages, with every foreseeable reason to visit an emergency ward. The unit where most of the service takes place should have round-the-clock operations in connection with intensive care and surgical operations. In order to achieve competence in emergency medicine, suitable supplementary cross-training within concurrent specialties is desirable where this competence cannot be provided for through the base specialty or within the own unit.

Theoretical training and self-study should be supplemented with practical training in a simulated hands-on environment and through Sitting-in. ST doctors can get training in structured care of the gravely ill through, for example, courses that follow the 'ABCDE' concept. Courses and exercises in probability assessment and differential diagnostics as well as triage are also desirable, as is working pre-hospital and in mass casualty situations. Feedback concerning ethics, leadership, and communication should preferably be given through Sitting-in and specialist doctor staff meetings.

It is important that time for studies, practical training, courses, and scientific meetings are continuously integrated into the clinical service. It is furthermore desirable that ST doctors participate in instruction as well as quality, development, and research projects.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their own specialties. The recommendations concern such issues as how specialist medical training should be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	**Teaching methods**	**Follow-up**
To master the identification and handling of severe and potentially life-threatening conditions	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Sitting-in	

Intermediate objective 2	**Teaching methods**	**Follow-up**
Being able to evaluate a degree of medical priority and to prioritize among those seeking care	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Sitting-in	

Intermediate objective 3	Teaching methods	Follow-up
To master evaluation of patients' symptoms based on differential diagnostic knowledge and to master probability assessment for various conditions based on the information available	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar	
	Training in a simulated environment	
	Sitting-in	
	Theoretical studies	

Intermediate objective 4	Teaching methods	Follow-up
To master emergency diagnostic and therapeutic proficiencies and the unit's medical technical equipment	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Sitting-in	

Intermediate objective 5	Teaching methods	Follow-up
To master evaluation of risks and benefits for various management alternatives from a medical, ethical, and logistical perspective, as well as from a perspective of patient safety	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor
	Training in a simulated environment	
	Sitting-in	

Intermediate objective 6	Teaching methods	Follow-up
To be able to handle an acute condition based on current treatment strategies	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Seminar	
	Diagnostics and treatment symposium	
	Sitting-in	
	Theoretical studies	

Intermediate objective 7	Teaching methods	Follow-up
To master leading work in an emergency ward and use of available competencies and existing resources	Clinical service under supervision in a unit that handles these conditions	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Health care teamwork under supervision	
	Training in a simulated environment	
	Sitting-in	

Intermediate objective 8	Teaching methods	Follow-up
To master responsibility for patients' medical safety, including during transport, until responsibility is assumed by another health care provider	Clinical service under supervision in a unit that handles these issues	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Health care teamwork under supervision	
	Training in a simulated environment	
	Sitting-in	

Intermediate objective 9	Teaching methods	Follow-up
To master leadership of medical work pre-hospital as well as in catastrophe and mass casualty situations	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Training in a simulated environment	
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To be able to handle patients in accordance with applicable legislation and in collaboration with social resources outside of health care	Clinical service under supervision in a unit that handles these issues	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Seminar	

Intermediate objective 11	Teaching methods	Follow-up
To be able to evaluate changes in health problems within society through high epidemiological awareness and to master preventive measures based on the variations of illness and injury through time and space	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Seminar	
	Theoretical studies	

Communicative competence

Intermediate objective 12	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin	Clinical work under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course or seminar	Certificate of successfully completed course, issued by course leader
	Sitting-in	
	Intraprofessional reflection in groups	

Intermediate objective 13	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers, as well as with representatives of the public and various civil authorities	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Health care teamwork under supervision	

Intermediate objective 14	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Instruction under supervision	

Leadership competence

Intermediate objective 15	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 16	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Health care teamwork under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To have an understanding of the organisation, management, and regulatory systems of health and medical care	Course	Certificate of successfully completed course, issued by course leader
	Theoretical studies	

Competence within medical science and quality work

Intermediate objective 18	**Teaching methods**	**Follow-up**
To be capable of a medically scientific outlook and approach	Course	Certificate of successfully completed course, issued by course leader
	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor
	Seminar	
	Theoretical studies	

Intermediate objective 19	**Teaching methods**	**Follow-up**
To have an understanding of, and competence in, evidence-based improvement and quality work	Course	Certificate of successfully completed course, issued by course leader
	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor
	Theoretical studies	

Intermediate objective 20	**Teaching methods**	**Follow-up**
To have an understanding of research methods as well as methods for evidence-based medicine and review of scientific information	Course	Certificate of successfully completed course, issued by course leader
	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor
	Seminar	
	Theoretical studies	

Pain management

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Introduction

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In each description of objectives, there is a section headed 'Training structure' which constitutes general guidelines.

The teaching methods under the heading 'Intermediate objectives' where no follow-up is indicated also constitute general guidelines.

Explanation of terms

current mentor

a specialist doctor whose specialist competence corresponds to the area of competence indicated by the intermediate objective, and who is responsible for ST doctors's professional development during the teaching period or for the method of teaching indicated

the assignment as a mentor for an ST doctor generally encompasses the entire period of specialist training but can also encompass part or parts of it

auscultation

during mentoring, and in accordance with a pre-designed programme, to study the profession of a specialist doctor or other health care staff by following one or several professionals, as well as carrying out assignments in the relevant area to a certain extent

evaluate

to form a sound opinion of a patient or similar person as a basis for further management

master

being fully able to evaluate and handle the medical investigation, diagnostics, treatment, and follow-up of a patient or similar person, and being fully able to use the techniques relevant to the area

capability

personal capacity to execute or perform a task

have understanding

having acquired knowledge and insight into an area through theoretical studies and/or practical exercise of the profession

have knowledge

having acquired some knowledge in an area through theoretical studies and/or practical exercise of the profession

mentoring under supervision

as an ST doctor, mentor a co-worker while simultaneously being mentored by a doctor with specialist competence

mentor
continuously, and in dialogue form, supporting and guiding, as well as evaluating, a co-worker's professional development

mentoring
see mentor

handle
to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially handle
as the primary physician in charge, to actively carry out measures regarding investigation, diagnostics, treatment, and follow-up of a patient or similar person, and have overall responsibility for carrying out these measures

initially evaluate
as the primary physician in charge, to form a sound opinion of a patient or similar person as a basis for further management

intraprofessional group reflection
reflection done in a group together with other doctors, chiefly for the purpose of further education and training

clinical service
health and medical care duties that ST doctors perform under their own professional liability and with the support of a mentor

course
teacher-led training with an established plan, given during a defined period of time

sitting-in
training activity involving an ST doctor observing when a specialist doctor or other health care staff holds a consultation

or

assessment activity involving a specialist doctor or other health care staff observing and evaluating ST doctors during a consultation

seminar
instruction in group form with active participation

training in a simulated environment
training carried out in an environment created to emulate reality

large professional assembly
conference, congress, symposium or similar event

health care centre
health care unit in primary care

health care team work
work where ST doctors, under supervision, participates in and sometimes leads a group of co-operating health care staff with various competencies charged with responsibility for care for an individual patient or group of patients

General definition of competence

Definition of area of competence

The specialty of pain management encompasses understanding and proficiency in investigating, diagnosing, evaluating, treating, and following up all types of pain conditions that occur in the population, regardless of patients' ages and the genesis of the pain. The competence covers all health care environments, from unselected patient material in primary care to highly specialised health care. Pain management also encompasses instruction, preventive measures, and rehabilitation. The area of competence is characterised by an interprofessional approach where co-ordination of efforts among various occupational groups, forms of health care, and responsible authorities is required. Understanding the organisation of health care, as well as familiarity with its working methods, are important for the specialty.

Pain management is an additional specialty to the base specialties in accordance with Chapter 5, Section 4 or 5 of the regulations.

Competence requirements

Competence requirements for medical competence

An understanding and proficiency within pain management is required for specialist competence in pain management in order to be able in practice to investigate, diagnose, evaluate, and treat pain conditions of an acute and long-standing nature, independent of the underlying illness process. This includes practical proficiency in research and treatment methods, both pharmacological and non-pharmacological, as well as continued management, rehabilitation, and follow-up.

Apart from knowledge within the area of competence of one's own base specialty, knowledge of pain conditions and illness processes outside one's own base specialty is required.

Moreover, specialist competence in a base specialty is required for specialist competence in pain management in accordance with Chapter 5, Section 4 or 5 of the regulations, which implies a deeper understanding of the common underlying illness processes of the base specialty.

The understanding includes investigating, diagnosing, evaluating, and treating the panorama of pain conditions that originate from these illness processes.

Competence requirements for communicative competence, leadership competence, and competence within medical science and quality work

Communicative competence

The equal and responsible patient

Doctors with specialist competence must be capable of dialogue and of maintaining open contact with patients and their next of kin. Contact should be characterised by empathy and trust, as well as respect for the patients' right to information, influence, and participation in decisions. Contact should also be characterised by co-operation and sensitivity to the patients' needs, desires and right to self-determination, as well as providing incentive for patients' involvement in, and responsibility for, their own care.

Multicultural and gender aspects

Communication with patients and their next of kin should be characterised by understanding and respect for cross-cultural aspects and multicultural aspects such as age, language, ethnicity, sexual orientation, and religion, as well as gender.

Interprofessional relations

Doctors with specialist competence must have the ability to communicate, both in writing and orally, with other doctors and co-workers showing respect for their professional knowledge and competencies. The same applies to contact with representatives of the public and various civil authorities.

Pedagogical skills

Doctors with specialist competence must have pedagogical capability in order to inform and instruct not only patients and their next of kin, but also other doctors and co-workers, as well as students.

Professional approach and ethics

Doctors with specialist competence must be capable of working continuously with their professional and medical ethical approaches, with the objective of being able to make independent decisions of a medical ethical nature.

Individual professional development

Doctors with specialist competence must be capable of continually examining and identifying, together with the requirements of the operation, their

own need of in-service training in order to be able to meet the demand for the best possible care for the patients.

Leadership competence

Collaboration

Doctors with specialist competence must have a developed capability for self-knowledge and understanding of their own functions and roles in the organisation.

Mentoring skills

Doctors with specialist competence must be capable of mentoring other doctors and co-workers, as well as students.

Leadership

Doctors with specialist competence must be capable of leadership distinguished by collaboration, openness, and dialogue with co-workers. Leadership must further be characterised by participation and activity development aimed at improvement. The ability to lead the work of the health care team is essential.

System knowledge

Doctors with specialist competence must have an understanding of the organisation, administration, finances, and regulatory systems of health care, as well as its governance, in order to make the best use of resources.

Competence within medical science and quality work

Medical science

Doctors with specialist competence must be capable of adopting a medically scientific outlook and approach, and must have knowledge of research methodology including basic epidemiological concepts, as well as of methods for evidence-based medicine and review of scientific information.

Improvement and quality work

Doctors with specialist competence must have understanding of, and competence in, evidence-based improvement and quality work. The objective is to be able to initiate, participate in, and be responsible for continuous systematic improvement work with emphasis on a holistic perspective, patient safety, patient benefit, measurability, and teaching management in order to be able to review and evaluate their own operations.

Public health and prevention

Doctors with specialist competence must have an understanding of the factors determining health, other aspects of public health, and methods for promoting health and efforts aimed at preventing injury and illness, in order to be able to take this understanding into account in medical scientific work.

Training structure

Specialist medical training in pain management can begin before, during, or after specialist medical training in the base specialty and can be integrated with it.

The introductory part of the specialist training should include a longer, sustained period of service concentrating on pain conditions that normally exist within the area of competence in one's own base specialty. This service should concentrate on investigating, diagnosing, evaluating, treating, and following up on the pain diagnoses normally existing within the area of base competence.

After the introductory period, it could be valuable for ST doctors to get a certain amount of cross-training through service or auscultation within a surgical and/or pharmacologically intensive specialty, such as anaesthetics and intensive care or neurosurgery. This is in order to broaden the competence base outside of those parts of specialist training naturally covered by one's own base specialty.

Certain parts of specialist training are specific to the respective base specialties, such as surgical management within orthopaedics, obstetrics and gynaecology, and urology, as well as oncology; invasive interventional treatment within anaesthetics and intensive care as well as neurosurgery; and specific pain rehabilitation within physiotherapy and rehabilitation.

A longer, continuous part of the service should include operations in multidisciplinary pain consulting or in a pain clinic, in accordance with Socialstyrelsen's report Behandling av långvarig smärta 1994:4, Chapter 3. This part of the specialist training can be scheduled when suitable, and does not need to be tied to a certain part. It is advantageous to perform the service in a unit where more disciplines and professions collaborate than those covered by the concept of multidisciplinary pain surgery in Socialstyrelsen's report Behandling av långvarig smärta 1994:4, Chapter 3.

In the later part of the specialist training, cross-training in the form of service or auscultation involving one or more of the following items is desirable, to the extent that they are not covered by the base specialty: cancer-related pain, acute and post-operative pain, and long-standing non-cancer related pain.

At the end of the specialist training, it is important that ST doctors be given the opportunity to work independently with pain management within their own base specialty.

Continuously alternating and integrating the specialist medical training with theoretical elements is desirable. The training should include ST doctors' participation in relevant courses and the opportunity to participate in a national or international scientific meeting.

Special recommendations

The specialty associations and sections of the medical organisations have formulated special recommendations for their specialties. The recommendations concern such things as how specialist medical training can be structured.

Intermediate objectives

Medical competence

Intermediate objective 1	**Teaching methods**	**Follow-up**
To master pain analysis, diagnostics, and treatment of acute pain	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 2	**Teaching methods**	**Follow-up**
To master pain analysis, diagnostics, and treatment of tumour-related pain	Clinical service under supervision in a unit where such operations are practised or auscultation under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor or certificate of approved auscultation and competence achieved, issued by current mentor

Intermediate objective 3	**Teaching methods**	**Follow-up**
To master pain analysis, diagnostics, and treatment of other pain related to cancer or its treatment	Clinical service under supervision in a unit where such operations are practised or auscultation under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor or certificate of approved auscultation and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 4	Teaching methods	Follow-up
To master pain analysis, diagnostics, and treatment of neuropathic pain	Clinical service under supervision in a unit where such operations are practised or auscultation under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor or certificate of approved auscultation and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 5	Teaching methods	Follow-up
To master pain analysis, diagnostics, and treatment of visceral pain	Clinical service under supervision in a unit where such operations are practised or auscultation under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor or certificate of approved auscultation and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 6	Teaching methods	Follow-up
To master pain analysis, diagnostics, and treatment of long-standing musculoskeletal pain	Clinical service under supervision in a unit where such operations are practised or auscultation under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor or certificate of approved auscultation and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 7	Teaching methods	Follow-up
To master the choice of pharmacological and non-pharmacological treatment of pain	Clinical service under supervision in a unit where such operations are practised or auscultation under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor or certificate of approved auscultation and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader

Intermediate objective 8	Teaching methods	Follow-up
To master the investigation, diagnostics, handling, evaluation, treatment, and follow-up of common pain conditions	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Diagnostics and treatment symposium	

Intermediate objective 9	Teaching methods	Follow-up
To be able to initially handle conditions with psychogenic pain	Seminar	
	Theoretical studies	

Intermediate objective 10	Teaching methods	Follow-up
To be able to initially handle patients with addictions to medicine	Auscultation under supervision in a unit that handles these conditions	
	Sitting-in	
	Diagnostics and treatment symposium	
	Theoretical studies	

Intermediate objective 11	**Teaching methods**	**Follow-up**
To be able to evaluate the form of rehabilitation in normally occurring pain conditions	Auscultation under supervision in a unit that handles these conditions	
	Course	Certificate of successfully completed course, issued by course leader
	Diagnostics and treatment symposium	
	Theoretical studies	

Intermediate objective 12	**Teaching methods**	**Follow-up**
To be able to handle the tasks of a doctor in multidisciplinary teamwork	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Health care teamwork under supervision	
	Diagnostics and treatment symposium	

Communicative competence

Intermediate objective 13	Teaching methods	Follow-up
To be capable of dialogue and open contact with patients and their next of kin	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Sitting-in	

Intermediate objective 14	Teaching methods	Follow-up
To be capable of communication, both oral and written, with other doctors and co-workers	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Health care teamwork under supervision	
	Sitting-in	

Intermediate objective 15	Teaching methods	Follow-up
To be capable of informing and instructing patients, next of kin, other doctors, and co-workers, as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Instructing under supervision	
	Sitting-in	

Leadership competence

Intermediate objective 16	Teaching methods	Follow-up
To be capable of mentoring other doctors and co-workers as well as students	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Course	Certificate of successfully completed course, issued by course leader
	Mentoring under supervision	

Intermediate objective 17	Teaching methods	Follow-up
To be capable of leading using collaboration and dialogue with co-workers as well as within the health care team	Clinical service under supervision in a unit where such operations are practised	Certificate of successfully completed clinical service and competence achieved, issued by current mentor
	Health care teamwork under supervision	

Intermediate objective 18	Teaching methods	Follow-up
To have an understanding of the organisation, management, and regulatory systems of health care	Course	Certificate of successfully completed course, issued by course leader
	Large professional assembly	

Competence within medical science and quality work

Intermediate objective 19	Teaching methods	Follow-up
To be capable of a medically scientific outlook and approach	Written individual work under supervision according to scientific principles	Certificate of approved written individual work, issued by current mentor
	Seminar	
	Large professional assembly	
	Theoretical studies	

Intermediate objective 20	Teaching methods	Follow-up
To have an understanding of, and competence in, evidence-based improvement and quality work	Quality and development work under supervision	Certificate of quality and development work, issued by current mentor
	Seminar	
	Theoretical studies	