

Description of the objectives for doctors' specialty training

The Swedish Medical Association's
translation into English

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Validity and area of application of this document

For information purposes, the Swedish Medical Association (Läkarförbundet) has translated parts of the National Board of Health and Welfare's (Socialstyrelsens) publication "Läkarnas specialiseringstjänstgöring Målbeskrivningar 2015" ISBN 978-91-7555-304-7 into English.

In this publication, the knowledge, skills and approaches that the registered doctor undergoing specialty training (the specialty resident, specialty trainee or "ST-läkare" in Swedish) is to develop during his/her specialty training. The descriptions of the objectives specify a number of learning objectives. Learning objectives a apply to all specialties, learning objectives b apply to many specialties while learning objectives c are specific to each specialty. This English translation is only intended to be regarded as an aid that the Swedish Medical Association provides in applying the descriptions of the objectives for doctors' specialty training. Because the translation is a product from the Swedish Medical Association and not of the National Board of Health and Welfare, the translation is not valid for application as regulations. It is the National Board of Health and Welfare's printed publication describing the regulations and general recommendations that applies.

In this document, the Swedish Medical Association has chosen to translate all learning objectives a and learning objectives b as well as the glossary of terms from the National Board of Health and Welfare's publication. In addition, the specialist skills descriptions and learning objectives c for 27 specialties have been translated, which has been done in consultation with and funded by the Swedish Medical Association's specialty associations and the Swedish Society of Addiction Medicine.

Glossary of terms

Clinical attachment	Structured programme where the specialty resident observes the professional practice of one or more colleagues and to some extent performs tasks in the area in question
Supervision	Support and guidance in the form of dialogue provided continuously
Supervisor	Specialist doctor who has completed an educational supervisor course and who supervises the specialty resident, and evaluates his or her professional development The supervisor may be the specialty resident's principal supervisor or another doctor with appropriate specialist skills for that training period
Clinical practice under supervision	The specialty resident's clinical practice under his/her own professional liability and with the support of the supervisor
Course	Structured programme based on set educational goals
Quality and development activities	Quality improvement project that the specialty resident carries out, which is part of the healthcare system's systematic quality management
Independent written project based on scientific principles	Written project undertaken in which the specialty resident independently answers a scientific question using evidence based medicine principles
School health service	Medical interventions in student health

Clinical Genetics

Description of skills

The specialty of Clinical Genetics is characterised by the diagnosis and management of diseases with a genetic basis and genetic counselling in relation to these diseases. This skills area covers all age groups and addresses all medical specialties where genetic inquiries arise.

Skills requirements

For Clinical Genetics, learning objectives a1-a6 and c1-c13 apply.

Learning objectives a

Learning objective a1 Teamwork, leadership and pedagogy	Programme activities	Assessment
The specialist doctor shall: <ul style="list-style-type: none"> – Be able to take responsibility for his/her continuous learning in the workplace – Be able to exercise leadership in his/her daily work, including lead a healthcare team – Be able to take responsibility for the development of multi-professional teamwork – Be able to take responsibility for cooperation with patients and their families** – Be able to work in networks looking after the patient – Be able to collaborate with agencies outside the hospital healthcare system such as social welfare boards, agencies within the social services, schools and Försäkringskassan (the Swedish Social Insurance Agency) – Be able to present and explain medical information in a way that is understandable to the recipient, orally and in writing – Be able to plan and carry out teaching and training – Be able to supervise and instruct colleagues and students 	Clinical practice under supervision	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	Participation in one or more courses	Certificate of completed programme activities and attained the required competencies issued by the course provider or the supervisor
	General recommendations	
	Participation in intra- or inter-professional reflection in groups Supervise under supervision Teach under supervision	

Learning objective a2 Ethics, diversity and equality	Programme activities	Assessment
The specialist doctor shall: <ul style="list-style-type: none"> – Demonstrate knowledge and understanding of the principles of medical ethics and be able to identify ethical problems and analyse these in a structured way – Be able to handle conflicts in values in his/her daily work – Be able to treat people as individuals and with respect regardless of gender, transgender identity or expression, ethnic origin, religion or other faith, disability, sexual orientation or age. 	Clinical practice under supervision	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	Participation in one or more courses	Certificate of completed programme activities and attained the required competencies issued by the course provider or the supervisor
	General recommendations Participation in intra- or inter-professional reflection in groups	

Learning objective a3 Infection Prevention and Control	Programme activities	Assessment
The specialist doctor shall: <ul style="list-style-type: none"> – Be able to take responsibility for the prevention and control of healthcare-associated infections 	Clinical practice under supervision	Certificate of completed programme activities and attained the required competencies issued by the supervisor

Learning objective a4 Systematic quality and patient safety management	Programme activities	Assessment
The specialist doctor shall: <ul style="list-style-type: none"> – Critically examine his/her own practice and be able to conduct a risk and outcome analysis – Be able to take responsibility for systematically implementing measures, processes and procedures to improve patient care – Be able to take responsibility for the integration of new technologies and procedures into his/her daily work as a doctor 	Clinical practice under supervision	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	Quality and development work	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	General recommendations Participation in seminars Attendance at large professional gatherings	

Learning objective a5 Medical science	Programme activities	Assessment
The specialist doctor shall: <ul style="list-style-type: none"> – Demonstrate a deeper knowledge and understanding of medical scientific methodology and ethical principles – Be able to critically examine and evaluate medical science information – Demonstrate a scientific evidence based approach to his/her daily way of working and routines 	Clinical practice under supervision	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	Independent written work based on scientific methodology	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	Participation in one or more courses	Certificate of completed programme activities and attained the required competencies issued by the course provider or the supervisor
	General recommendations Participation in seminars Attendance at large professional gatherings	



Learning objective a6 Legislation and other regulations and the health and medical care system's organisation	Programme activities	Assessment
The specialist doctor shall: <ul style="list-style-type: none">- Demonstrate knowledge of the legislation and regulations which govern the healthcare system and its staff- Demonstrate knowledge of the health and medical care system's organisation and administration- Demonstrate knowledge of the health and medical care system's various financial control systems and their importance for the balancing of priorities in his/her daily work	Participation in one or more courses	Certificate of completed programme activities and attained the required competencies issued by the course provider or the supervisor

Learning objectives c

The specialist doctor shall have knowledge in medical genetics.

In addition, the specialty resident shall have skills in:

- Interpretation of laboratory analyses
- Initial consultation, consulting and training activities, and
- Development projects.

The specialist doctor shall also:

- Be well versed in the principles of genetic diagnostics in order to be able to utilise different diagnostic methods and interpret the results,
- Be able to manage genetics investigations, for both congenital and acquired disorders, and in prenatal diagnostics,
- Have knowledge of complex genetics,
- Master family tree analysis and database management,
- Have the ability to provide genetic counselling and work as a consultant in genetics inquiries across the entire field of medicine,
- Be able to converse with patients on vital issues while taking into account ethical principles and values,
- Have the ability to monitor developments in knowledge and be oriented in current research in the area, and
- Be able to change ways of working and the content of his/her work guided by new knowledge and new methods.

Learning objective c1	Programme activities	Assessment
The specialist doctor shall: – Have knowledge of medical genetics, cytogenetics and molecular biology	Participation in one or more courses	Certificate of completed programme activities and attained the required competencies issued by the course provider or the supervisor
	General recommendations Theoretical studies	

Learning objective c2	Programme activities	Assessment
The specialist doctor shall: – Master genetic diagnostics and investigations, and have knowledge about the treatment and prevention of congenital genetic disorders	Clinical practice under supervision at one or more units conducting such activities or managing such cases	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	Participation in one or more courses	Certificate of completed programme activities and attained the required competencies issued by the course provider or the supervisor
	General recommendations Participation in diagnostic and treatment conferences Attendance at large professional gatherings Theoretical studies	

Learning objective c3	Programme activities	Assessment
The specialist doctor shall: – Master genetic diagnostics and investigations and have knowledge about the treatment and prevention of acquired genetic disorders	Clinical practice under supervision at one or more units conducting such activities or managing such cases	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	Participation in one or more courses	Certificate of completed programme activities and attained the required competencies issued by the course provider or the supervisor
	General recommendations Participation in diagnostic and treatment conferences Attendance at large professional gatherings Theoretical studies	

Learning objective c4	Programme activities	Assessment
The specialist doctor shall: – Master genetic laboratory diagnostics	Clinical practice under supervision at one or more units conducting such activities or managing such cases	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	Participation in one or more courses	Certificate of completed programme activities and attained the required competencies issued by the course provider or the supervisor
	General recommendations Theoretical studies	

Learning objective c5	Programme activities	Assessment
The specialist doctor shall: – Be able to initially manage syndrome investigations	Clinical practice under supervision, or alternatively clinical attachment at one or more units conducting such activities or managing such cases	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	Participation in one or more courses	Certificate of completed programme activities and attained the required competencies issued by the course provider or the supervisor
	General recommendations Theoretical studies	

Learning objective c6	Programme activities	Assessment
The specialist doctor shall: – Master prenatal diagnostics – Have knowledge of pre-implant genetic diagnostics	Clinical practice under supervision, or alternatively clinical attachment at one or more units conducting such activities or managing such cases	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	General recommendations Theoretical studies	

Learning objective c7	Programme activities	Assessment
The specialist doctor shall: <ul style="list-style-type: none"> – Be able to provide genetic counselling at the individual and family level – Be able to converse with patients on vital issues while taking into account ethical principles and values, 	Clinical practice under supervision at one or more units conducting such activities or managing such cases	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	Participation in one or more courses	Certificate of completed programme activities and attained the required competencies issued by the course provider or the supervisor
	General recommendations Clinical attachment Theoretical studies	

Learning objective c8	Programme activities	Assessment
The specialist doctor shall: <ul style="list-style-type: none"> – Master family tree analysis and risk assessment 	Clinical practice under supervision at one or more units conducting such activities or managing such cases	Certificate of completed programme activities and attained the required competencies issued by the supervisor

Learning objective c9	Programme activities	Assessment
The specialist doctor shall: <ul style="list-style-type: none"> – Master database management as a diagnostic aid 	Clinical practice under supervision at one or more units conducting such activities or managing such cases	Certificate of completed programme activities and attained the required competencies issued by the supervisor

Learning objective c10	Programme activities	Assessment
The specialist doctor shall: – Be able to manage genetic consultations in the health and medical care system	Clinical practice under supervision, or alternatively clinical attachment at one or more units conducting such activities or managing such cases	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	General recommendations Participation in diagnostic and treatment conferences Attendance at large professional gatherings	

Learning objective c11	Programme activities	Assessment
The specialist doctor shall: – Have knowledge of complex genetic correlations	Participation in one or more courses	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	General recommendations Theoretical studies	

Learning objective c12	Programme activities	Assessment
The specialist doctor shall: – Have knowledge of how research results can be applied clinically	Clinical practice under supervision, or alternatively clinical attachment at one or more units conducting such activities or managing such cases	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	General recommendations Attendance at large professional gatherings Theoretical studies	

Learning objective c13	Programme activities	Assessment
The specialist doctor shall: – Be able to apply legislation and other regulations applicable to the specialty	Clinical practice under supervision	Certificate of completed programme activities and attained the required competencies issued by the supervisor
	Participation in one or more courses	Certificate of completed programme activities and attained the required competencies issued by the course provider or the supervisor

General recommendations

Programme structure

The specialty resident should complete his/her specialty training primarily at a healthcare unit specialising in clinical genetics. In order to achieve broad knowledge in genetic diagnostics, the specialty resident should acquire competence in laboratory diagnostics within both cytogenetics and molecular genetics. The management of genetic investigations related to both congenital and acquired genetic disorders is also an important part of the programme. This should be done with increasing autonomy during the programme. It is also important that the specialty resident is permitted to provide genetic counselling of increasing complexity during the programme.

The order in which the individual specialty resident studies the areas specified in the various learning objectives may be adjusted according to previous experience and current focus.

Some elements of the specialty resident's specialty training may need to take place at a different unit for clinical genetics so that specialty resident is given the opportunity to fulfil specific learning objectives. It is also important that the specialty resident gets ancillary training alternatively clinical attachment in other speciality areas to deepen his/her skills in clinical genetics. This is important within patient care activities such as paediatrics, gynaecology and obstetrics, neurology, oncology and haematology, but also within laboratory activities such as clinical pathology and clinical chemistry.