

Sweden

Specialist Medical Training in Clinical Genetics

A new classification of medical specialities has applied since 1 July 2006. This classification is based on basic, sector and supplementary specialities. Under the administrative provisions issued by the National Board of Health and Welfare (NBHW), an individual must hold a qualification in a basic speciality to be able to obtain a specialist qualification in a sector speciality or a supplementary speciality. There are a total of 56 specialities, of which 31 are basic specialities, 23 sector specialities and 2 supplementary specialities.

The NBHW is the certifying authority for specialist qualifications. The NBHW has issued administrative provisions and general advice (SOSFS 2008:17) regarding specialist medical training. The administrative provisions contain descriptions of learning objectives for each of the 56 specialities. To obtain a qualification in a given speciality, an individual must have achieved all the learning objectives in the relevant description.

The general learning objectives for the speciality of clinical genetics are set out below. For further descriptions of the speciality, please see the specified sub-objectives in the description of learning objectives for clinical genetics set out in SOFS 2008:17.

General skills definition for clinical genetics

Definition of the field

The specialty of clinical genetics involves the diagnosis and management of diseases of genetic origin, and genetic counselling related to such diseases. The field of work covers all age groups and applies to all medical specialities in which genetic issues occur.

Skills profile

Medical skills

A specialist qualification in clinical genetics requires knowledge of medical genetics and skill in the interpretation of laboratory analysis results, as well as in clinical, advisory and training activities and in development work. More specifically, specialists in medical genetics must be well versed in the principles of genetic diagnosis so that they can apply different diagnostic methods and interpret the results, and have practical skills in managing genetic analyses related to congenital and acquired genetic conditions and in prenatal diagnosis.

Specialists must also be able to provide genetic counselling and act in an advisory capacity in genetic issues over the entire field of medicine. Specialists must also be well acquainted with heredity analysis and database management, and possess general knowledge of complex genetics.

They also need to be good at talking to patients about life-changing issues, while taking into account ethical principles and values. They must also be able to keep abreast of developments in the field and remain aware of current research, and, in the light of new knowledge and new methods, be able to amend the procedures and content of their own work.

Skills profile for skills in communication, leadership, medical science and quality work

Communication skills

The equal, empowered patient

A medical specialist must be able to pursue a dialogue and maintain an open-hearted relationship with the patient and his or her family members. This relationship must be characterised by empathy and confidence and by respect for the patient's right to information, influence and participation in decision-making. It must also be characterised by a spirit of co-operation and sensitivity to the patient's needs, wishes and rights to self-determination, and stimulate the patient's commitment to, and responsibility for his or her own care.

Diversity and gender aspects

Communication with the patient and his or her family members must be characterised by knowledge and respect for transcultural and diversity aspects such as age, language, ethnic origin, sexual orientation and religion, as well as gender.

Inter-professional relationships

The medical specialist must have the ability to communicate, orally and in writing, with other doctors and other personnel categories, respecting their professional knowledge and skills. The same applies to contacts with representatives of the general public and various public bodies.

Teaching ability

The medical specialist must have the ability to inform and teach others, primarily patients and their family members but also other doctors, other categories of personnel and students.

Professional approach and ethics

The medical specialist must have the ability to continually work on his or her professional and medical-ethical approach with the objective of being able to make independent decisions in matters of medical ethics.

Skills acquisition

The medical specialist must have the ability to continually weigh and identify his or her own need of further training, in conjunction with the demands of the workplace, in order to best live up to the requirement to provide the best possible care to patients.

Leadership skills

A good colleague

The medical specialist must have developed self-awareness and knowledge of his or her own function and role in the organisation.

A good mentor

The medical specialist must have the ability to mentor other medical professionals and other categories of personnel, and students.

A good leader

The medical specialist must have the ability to demonstrate leadership characterised by co-operation, openness and dialogue with colleagues. This leadership must also be characterised by participation in and development of the work of the workplace, with a view to achieving improvement. The ability to lead the work of a care team is fundamental.

Knowing the system

The medical specialist must be well versed in the organisation of the health and medical services, their administration, financing and regulatory framework, and their operation with a view to best possible use of resources.

Skills in medical science and quality improvement

Medical science

The medical specialist must have the ability to maintain a view and approach based on medical science, knowledge of research methodology including basic concepts in epidemiology, and methods for evidence-based medicine and the review of scientific information.

Improvement and quality work

The medical specialist must have knowledge of and skills in evidence-based improvement and quality work. The objective is to be able to initiate, participate in and take responsibility for continual systematic improvement work, with an emphasis on a holistic perspective, patient safety, usefulness to patients, measurability and learning guidance, in order to be able to critically review and evaluate their own workplace.

Public health and prevention

The medical specialist must be knowledgeable about determinants of health and other aspects of public health, and of methods for health promotion and injury and disease prevention, in order to be able to take this knowledge into account in his or her medical scientific and quality work.

Structure of training

Specialist training usually takes place at a hospital clinical genetics unit within the health services. To achieve broad knowledge of genetic diagnostics, the doctor undergoing training (registrar) should acquire skills in laboratory diagnosis in the fields of cytogenetics and molecular genetics. Management of genetic analyses related to congenital and acquired genetic conditions should be undertaken with an increasing degree of independence as the residency progresses. Genetic counselling of increasing complexity is another important aspect of training. The order in which individuals undergoing training make detailed study of the various objectives within their area of skill depends on their previous experience and present focus.

Some stages of training may need to be carried out at another clinical genetics unit to ensure that the individual achieves certain sub-objectives. It is also important to carry out supplementary training, or clinical observation, within other specialist fields to allow the individual to improve his or her skills in clinical genetics. This is important in fields involving care of patients, such as paediatric medicine, gynaecology and obstetrics, neurology, oncology and haematology, as well as in laboratory work such as clinical pathology and clinical chemistry. Research experience should also be a natural part of training.