



UNION EUROPÉENNE DES MÉDECINS SPÉCIALISTES EUROPEAN UNION OF MEDICAL SPECIALISTS

Association internationale sans but lucratif

International non-profit organisation

RUE DE L'INDUSTRIE, 24
BE- 1040 BRUSSELS

www.uems.eu

T +32 2 649 51 64

F +32 2 640 37 30

info@uems.eu

Training Requirements for the Specialty of (Neck) Endocrine Surgery

Preamble

The UEMS is a non-governmental organisation representing national associations of medical specialists at the European Level. With a current membership of 37 national associations and operating through 43 Specialist Sections and European Boards, the UEMS is committed to promote the free movement of medical specialists across Europe while ensuring the highest level of training which will pave the way to the improvement of quality of care for the benefit of all European citizens. The UEMS areas of expertise notably encompass Continuing Medical Education, Post Graduate Training and Quality Assurance.

It is the UEMS' conviction that the quality of medical care and expertise is directly linked to the quality of training provided to the medical professionals. Therefore, the UEMS committed itself to contribute to the improvement of medical training at the European level through the development of European Standards in the different medical disciplines. No matter where doctors are trained, they should have at least the same core competencies.

In 1994, the UEMS adopted its Charter on Post Graduate Training aiming at providing the recommendations at the European level for good medical training. Made up of six chapters, this Charter set the basis for the European approach in the field of Post Graduate Training. With five chapters being common to all specialties, this Charter provided a sixth chapter, known as "Chapter 6", that each Specialist Section was to complete according to the specific needs of their discipline.

More than 20 years after the introduction of this Charter, the UEMS Specialist Sections and European Boards have continued working on developing these European Standards in Medical training that reflects modern medical practice and current scientific findings. In doing so, the UEMS Specialist Sections and European Boards did not aimed to supersede the National Authorities' competence in defining the content of postgraduate training in their own State but rather to complement these and ensure that high quality training is provided across Europe.

At the European level, the legal mechanism ensuring the free movement of doctors through the recognition of their qualifications was established back in the 1970s by the European Union. Sectorial Directives were adopted and one Directive addressed specifically the issue of medical Training at the European level. However, in 2005, the European Commission



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proposed to the European Parliament and Council to have a unique legal framework for the recognition of the Professional Qualifications to facilitate and improve the mobility of all workers throughout Europe. This Directive 2005/36/EC established the mechanism of automatic mutual recognition of qualifications for medical doctors according to training requirements within all Member States; this is based on the length of training in the Specialty and the title of qualification.

Given the long-standing experience of UEMS Specialist Sections and European Boards on the one hand and the European legal framework enabling Medical Specialists and Trainees to move from one country to another on the other hand, the UEMS is uniquely in position to provide specialty-based recommendations. The UEMS values professional competence as *“the habitual and judicious use of communication, knowledge, technical skills, clinical reasoning, emotions, values, and reflection in daily practice for the benefit of the individual and community being served”*. While professional activity is regulated by national law in EU Member States, it is the UEMS understanding that it has to comply with International treaties and UN declarations on Human Rights as well as the WMA International Code of Medical Ethics.

This document derives from the previous Chapter 6 of the Training Charter and provides definitions of specialist competencies and procedures as well as how to document and assess them. This document aims to provide the basic Training Requirements for each specialty and should be regularly updated by UEMS Specialist Sections and European Boards to reflect scientific and medical progress. The three-part structure of this documents reflects the UEMS approach to have a coherent pragmatic document not only for medical specialists but also for decision-makers at the National and European level interested in knowing more about medical specialist training.

Introduction and historic background

The objectives of the European Board of Surgery (EBS) are to assess, set standards for and progressively harmonize the content and quality of training and continuing medical education in all fields of surgery within the member states of the European Union (EU) and the other European countries.

There is a trend towards increasing specialization within surgery which has progressed to different degrees in different parts of the EU and some of the fields of surgery encompassed by the EBS have become recognized in some countries as well-defined or even totally independent surgical specialties.

The trend towards greater specialization is supported by the EBS whenever consistent with improved standards of clinical practice and training. However, in order to meet the needs of the many European hospitals which are not large enough to justify the same highly compartmentalized departments of surgery that have become the norm in most teaching



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centres it is essential to ensure that surgeons are able to obtain broadly based training across all the various fields. This makes it essential for newly emerging surgical specialties to continue to collaborate closely within the well-defined framework of the EBS.

In order to encourage beneficial specialization, while maintaining the integrity of surgery as a whole, it is the policy of the EBS to establish Surgical Specialty Boards to accommodate the special requirements of well-defined areas of surgical practice.

Surgical specialty Boards have responsibility for establishing and monitoring standards of training within their specific field of surgery while the EBS functions as a "common house of surgery" to coordinate the interrelationship, recommendations and actions of the Surgical Specialty Boards as they develop.

The EBS will require input from the Specialty Boards in common trunk training. It is empowered to issue European Board of Surgery Certificates of Quality of Training (EBSQ) in the surgical specialties on the recommendation of its Surgical Specialty Boards.

The EBS cooperates with national professional authorities and especially with the scientific organizations in the process of standardization and harmonization of surgical curricula.

The standardization efforts are paralleled with the continuous development of surgical qualification, validation, certification, recertification, professional development and CME processes and projects.

The EBS enhances strategies to see the Board qualification (Fellowship of the EBS) legally adopted in the countries aiming to a common European qualification process that also respects national and regional peculiarities.

The Division of Endocrine Surgery (DES) was founded in 1999. Standards for examinations in both Endocrine Surgery and later Neck Endocrine Surgery were defined in collaboration with members of the European Society of Endocrine Surgeons (ESES). The (Neck) Endocrine Surgery Syllabus comprehensively describes theoretical knowledge and practical and clinical skills mandatory for the qualification in Fellow of the European Board of Surgery Qualification (EBSQ) in (Neck) Endocrine Surgery. In 2003, the examination of the examiners took place. Since 2004, examinations in Endocrine Surgery are organized in conjunction with the meetings of the European Society of Endocrine Surgeons. Since 2008, examinations are also organized in Neck Endocrine Surgery.

The present document has been written on the basis of what detailed in the above mentioned Syllabus: it is therefore intended to present - in a concise and non-exhaustive way - the optimal standards for training in (Neck) Endocrine Surgery throughout Europe, and has to be intended as a reference document reflecting the general criteria laid down in the charter on training of medical specialists in the EU, to be read in conjunction with the existing national programmes. Emphasis has been placed on topic characteristic of the discipline, entrusting to the UEMS documents the presentation of the general principles of ethics and professionalism common to the medical profession as such.



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Through a clear definition of the contents of training, the professional skills and attitudes requested to become a (Neck) Endocrine Surgeon, the characteristics and requirements of trainers and trainees, this document is designed to:

- 1) harmonise training programmes in (Neck) Endocrine Surgery between different European countries;
- 2) establish defined standards of knowledge, skills and attitude required to practice (Neck) Endocrine Surgery at secondary and tertiary care level;
- 3) improve the level of surgical care for patients with endocrine diseases, and to thereby further enhance the European contribution to clinical and academic (Neck) Endocrine Surgery worldwide.

This document is intended as a work in progress, in a continuous process of updating to keep up with the continuous development of the discipline.

I. Training Requirements for Trainees

The field of Endocrine Surgery encompasses the surgical care of organs producing hormones. It requires specialised knowledge and skills in managing endocrine diseases to be treated by surgical methods, including management, peri-operative care and rehabilitation. The pituitary gland is generally not part of Endocrine Surgery but rather belongs to neurosurgery. Neuroendocrine tumours of the lungs are generally treated by thoracic surgeons. Depending on national and local traditions, overlap may even exist with a variety of other specialist such as upper gastrointestinal surgeons, colorectal surgeons, abdominal surgeons, urologists, and ear-nose-throat (ENT) physicians.

It is recognized that some Endocrine Surgeons treat the entire spectrum of endocrine diseases as described above while others are limited to the neck. The field of Neck Endocrine Surgery encompasses the surgical care of organs producing hormones located in the neck. Therefore, two different examinations exist: Endocrine Surgery and Neck Endocrine Surgery. As outlined in the eligibility criteria, surgeons who have carried out their surgical training are generally eligible to take the endocrine exam. Both surgeons and ENT physicians who have carried out their training are generally eligible to take the neck endocrine exam.

(Neck) Endocrine Surgery core activity includes deep knowledge of sporadic and hereditary diseases, knowledge of the principles of operative medicine (including minimally invasive surgery) as well as knowledge of the theoretical approach to anaesthesia and intensive care in.



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Candidates for accreditation in (Neck) Endocrine Surgery must have a proper knowledge and experience of the principles and practice of surgical procedures and techniques in general. In addition, they must have

- a firm grounding in the basic and clinical science aspects of the organs and diseases of which they should be familiar with,
- a training in an endocrine surgical or respective ENT unit for a minimum of 2 years.

1. Content of training

a. Theoretical knowledge

The specialty of (Neck) Endocrine Surgery requires knowledge regarding basic and clinical science:

Basic science curriculum

- Understanding of the development of the endocrine glands and a detailed knowledge of their anatomy including variations in position
- Endocrine physiology as outlined below and pathogenesis of endocrine tumours
- Possibilities and limitations of detection devices used clinically and in research including knowledge in molecular biology and assay methods

Clinical science curriculum

- Understanding of the principles of endocrine investigation (including history, clinical examination and biochemical, radiological, isotopic, cytological and histological investigations and its limitations)
- Knowledge in interpretation of cervical ultrasound findings
- Strategies for minimizing intervention and costs
- Knowledge of actual controversies in indication and extent of endocrine procedures

In-depth knowledge of

- physiology and pathophysiology,
- embryology, pathology, cytology, classifications, genetics,
- clinical presentation and clinical workup,
- perioperative management,
- indications, operative techniques, management of complications,

of the thyroid (Neck and Endocrine), parathyroids (Neck and Endocrine), adrenal glands (Endocrine) and the diffuse endocrine system of the gastro-entero-pancreatic tract (Endocrine) is mandatory.



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Regarding the pituitary gland, knowledge regarding its role in thyroid (Neck and Endocrine) and adrenal (Endocrine) function and their feedback is mandatory.

b. Practical knowledge

Trainees must be exposed to the full spectrum of (Neck) Endocrine Surgery procedures during their training. This may require a tutorship by more than one trainer, and it is advisable that the scope of the training is broadened by working in or visiting different training centres.

The tables below list the minimum numbers of procedures that trainees should have performed at completion of their training. If the minimum number of one key procedure is not fully met, it may be counterbalanced by a comparable key procedure of the same area. It is expected that minimum operative totals of each area are attained. Trainees should have been directly involved in the pre- and post-operative management of these patients and should have a detailed understanding of the preoperative diagnostic investigations.

In addition to the list of key procedures, there are more complicated or rare procedures that the trainee should have assisted (or partly performed), e.g., reoperations.

The (Neck) Endocrine Training Record lists the cumulative operative totals actually done by a trainee.

At the end of the training, both the trainer and the national training authority certify that the information provided by the applicant concerning his/her training experience is correct.



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Endocrine Surgery	Performed	Assisted
Operations		
Thyroid resections	50	50
Recurrent thyroid operation		5
Central compartmental lymph node clearance	2	15
Lateral compartment lymph node clearance	2	10
Parathyroidectomy in HPT	15*	20*
Adrenalectomy	2	10
Resection for NET of the GI tract	2	5

*) at least 10 bilateral explorations demanded

Neck Endocrine Surgery	Performed	Assisted
Operations		
Thyroid resections	50	50
Recurrent thyroid operation		5
Central compartmental lymphnode clearance	2	15
Lateral compartment lymphnode clearance	2	10
parathyroidectomy in HPT	15*	20*



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c. Professionalism

The trainee must demonstrate the ability to record and convey patient details of history, examination and investigation findings to senior staff. The trainee must clearly consent patients for operative procedures detailing the reasons for performing the procedure and the risks involved. The trainee must communicate with patients and relatives and must be able to pass on distressing information (e.g. malignancy or bereavement) in a sensitive and caring manner.

Moreover, medical professionalism includes knowledge of aspects of health care management, hospital management, and safeguarding vulnerable patients.

2. Organisation of training

a. Assessment and evaluation

Logbook and Training Portfolio

Each trainee must keep an authorized Logbook that meets the standards of the UEMS logbook for documentation of operative experience. The trainee will have to demonstrate that he/she has assisted a wide range of cases which should include a balance of trainer assisted and personal cases under supervision. Logbook entries must be monitored by regular inspection and signed off by the appropriate trainer. The logbook must be available at Board Examination.

The trainee should keep a Training Portfolio, which should include an up-to-date curriculum vitae incorporating:

- details of previous training posts, dates, duration and trainers
- list of publications with copies of published first page or abstract
- list of research presentations at local, national and international meetings
- list of courses attended
- cumulative operative totals
- copies of assessment forms for each training period completed and signed by trainers for that period.

Certification of completion of training in surgery (CCTS) or equivalent

The National Authority is the responsible body for recognition/certification of medical specialties in each member state of the EC/EFTA. The majority of these countries now have a



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compulsory Board Examination (consisting of an oral exam, a written exam or both) to assess knowledge, clinical judgement and the candidate's thought processes.

National bodies should note the existence of the DES examination which leads to European certification (European Diploma of (Neck) Endocrine Surgery). However, this does not constitute a license to practice (Neck) Endocrine Surgery in any European country, which is the responsibility of the National Authority. The DES examination may be a useful tool which could be assimilated by countries that do not have board certification examination arrangements in place.

b. Schedule of training

Duration of training

Training must cover the full range of the specialty and lead to the ability for independent practice on completion of training. Training must be of 2 years minimum duration.

Curriculum of general and specific training periods

A Training Curriculum should be designed to provide a diversified and balanced quality (theoretical and practical) of (Neck) Endocrine Surgery education describing the contents and aims in each year of training. Emphasis should be placed on adequate time allocation for study and tuition independent of clinical duties. It may be necessary for some departments to formally organize specific training periods in associated surgical/ENT units, if adequate experience cannot be provided internally.

There should be established rotation periods covering all main areas of (Neck) Endocrine Surgery. These rotations should be organized in such a way as to give trainees increasing responsibility as they progress through their training with regard to patient care and surgical experience. Rotations may include other clinical disciplines and research in (Neck) Endocrine Surgery, depending on requirements, local availability and the department's emphasis. Some institutions may wish to use a structured Surgical Training Plan. The main idea of this is a continuous and systemic escalation of surgical responsibilities and competence through subsequent training years.

The programme of training should be planned to maintain an ongoing scholarly activity including:

- Weekly clinical discussions and rounds
- Regular programme of teaching
- Regular journal clubs
- Regular clinical and experimental research conferences



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- Discussions of morbidity and mortality

There must be protected time for study and tuition. Trainees should be encouraged and are expected to develop an understanding of research methodology. All trainees are expected to be able to assess published work. In academic programmes, the opportunity for clinical and/or basic research should be available to the trainee with appropriate faculty supervision. An appropriately qualified person should supervise specific research projects if applicable. There should be a protected period of time within a 2-year-programme where a trainee can participate in a specific research project.

It is recommended that trainees attend at least the meetings of the national endocrine surgical or ENT society (or an equivalent meeting). If possible, trainees should participate in the meetings organized by the European Society of Endocrine Surgery (ESES). During their training, they should also attend scientific meetings and hands-on-courses.

Trainees should keep a Trainee Portfolio containing details of all activities of the Education Programme in which he/she participated.

II. Training Requirements for Trainers

1. Requested qualification and experience

Trainers must be certified surgeons, endocrine surgeons or ENT-physicians preferably certified by the European Board of Surgery Qualification. The trainers should follow the requirements of continuing professional development. Trainers should possess the necessary clinical, teaching and administrative skills, and commitment to conduct the programme. Trainers should have undertaken instruction in training (learning needs and teaching objectives) and in assessment of trainees. Trainers should provide evidence of scholarly activities (clinical and/or basic research, publications in peer reviewed journals and participation in neurosurgical scientific meetings). Trainers will require secretarial and administrative support.

2. Core competencies

Trainers have to set realistic aims and objectives for a rotation or training period. The trainer has to supervise the day to day work of the trainee on the ward, in the outpatient clinic and in the operating theatre. The trainer has to evaluate the trainees' surgical progress at the end of each rotation or training period and ensure that the assessments and reports are documented and signed both by the trainer and the trainee.



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III. Training Requirements for Training Institutions

1. Process for recognition as training centre

Training must take place in an institution or group of institutions, preferably based in a university hospital or associated with a university, otherwise in a recognised training centre, which together offer the trainee adequate practice in the full range of the specialty as defined in this document. These Institutions must be formally recognized by their proper National Authority and can require further recognition by the DES through a Site Visit. Training institutions must include facilities for inpatient care, day care and ambulatory care. Neighbouring specialties must be present to a sufficient extent to provide the trainees the opportunity of developing their skills in a team approach to patient care. Consultations and operative procedures should be varied and quantitatively and qualitatively sufficient to meet the minimal requirements for each trainee as defined above.

a. Requirement on clinical activities

There must be a sufficient referral base to provide an adequate case volume and mixture to support the training programme.

At least 150 endocrine surgical procedures per year should be performed.

Operating theatres should be covered by anaesthetists with a special interest in anaesthesia relevant of certain endocrine diseases (e.g., neuroendocrine tumours causing carcinoid syndrome, pheochromocytoma). Anaesthesia cover should be available at all times.

There must be designated and fully staffed intensive care beds.

There must be an emergency unit with 24 hours admission.

There must be outpatient clinics where non-emergency patients are seen before and after surgical procedures.

Allied specialities must be present to a sufficient extent to provide the trainee with the opportunity of developing his/her skills in a multidisciplinary approach to patient care. The training programme should be closely associated with the following departments or units officially certified for training:

- a department of endocrinology/internal medicine
- a department of anaesthesiology
- a department of radiology which has imaging techniques with dedicated techniques with regard to endocrine diseases including ultrasound-/CT-guided cytology/biopsy
- a department of pathology
- a department of radiotherapy
- a department of oncology
- a department of paediatrics



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- regular meeting of multidisciplinary teams involved in the care of patients with endocrine diseases
- a department of clinical genetics with genetic counsellors.

b. Requirement on equipment and accommodation

There must be fully staffed and appropriately equipped operating theatres with availability of a 24-hour operating theatre even though endocrine emergencies are very rare. Moreover, the following equipment is highly recommended: (endoscopic) ultrasound, neuromonitoring, quick PTH-assay.

Furthermore, the following accommodations should be available:

- Easily accessible library with adequate selection of books and journals on endocrine surgery/ENT (hard copy or electronic), with facilities for literature searches.
- Office space for both faculty and trainees
- Space and equipment for practical training of techniques in a laboratory setting (not necessarily on site)
- Space, equipment and supporting personnel for clinical and/or basic research in academic programmes

2. Quality Management within Training institutions

Manpower planning should be developed, based on the demands and provision of safe care across the countries of the EU/EFTA and associated member states. Planning will have to take into consideration demographic changes in any population such as its growth and ageing, changing treatment modalities and actual workload, the effects of legislation on working hours and, in some centres the involvement in education of medical professionals.

A training institution must have an internal system of medical audit or quality assurance. There should be written general guidelines of the training institution concerning patient care and patient information (patient's consent), referrals, medical records, documentation, on-call and back-up schedules, days off, trainees' work schedules, attendance at conferences and educational activities. These should be available to staff and trainees.

There must be an internal system of medical audit, such as mortality and morbidity conferences, together with a structured procedure for the reporting of accidents.

The hospital should have measures in place (e.g. in the form of a committee) in relation to quality control such as infection control. A drugs and therapeutics committee should exist. A programme and training in risk management should be in place. The hospital or the training institution should have an annual activities report.