

Requirements for Board Certification of the Division of Endocrine Surgery (DES)

Neck Endocrine Surgery

This curriculum is aimed to form the basis for accreditation to a high level of competence in Endocrine Surgery.

Candidates for accreditation in endocrine surgery must have in addition to a proper knowledge and experience of the principles and practice of general surgery:

- A) a firm grounding in the basic and clinical science aspects of the organs and diseases with they should be familiar (Appendix A)
- B) a training in an endocrine surgical unit for a minimum of 2 years (Appendix B)
- C) an appreciation of relevant current research and clinical developments gleaned from attendance of at least 4 specialist meetings or postgraduate courses (Appendix C)
- D) a defined minimum of operative experience in endocrine surgery (Appendix D).

APPENDIX A:

Basic and Clinical Science Curriculum

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 tumors.
- * 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

Topics

1. Thyroid

1.1. Physiology and pathophysiology

role of iodine in the normal function of the thyroid including pathways of iodine metabolism. Physiology of TSH and Thyrotropin releasing factor. Function of T3 and T4. Role of thyroglobulin in thyroid physiology. Thyroid hormone release. Principles underlying the functioning of the pituitary thyroid axis. Tests of thyroid function including the use of isotope uptake tests. Thyroid antibodies and their significance. An understanding of the physiological impact of Graves disease on normal bodily functions. Mechanisms of ophthalmic manifestations of Graves disease. Physiology of thyroid crisis. Effects of calcitonin.

1.2. Embryology, pathology, cytology, classifications, genetics

embryological development of the thyroid gland; histology of benign thyroid disorders, classification of thyroid tumors, FNA, classification of FNA; limitations of FNA; TNM-Staging; genetics of hereditary thyroid malignancies (PTC, MTC)

1.3. Clinical presentation and clinical workup

solitary thyroid nodule, goiter, hyperthyroidism (Plummer's disease, Graves' disease), thyroiditis (Hashimoto, De Quervain, Riedel), well differentiated thyroid cancer, MTC, UTC; thyroglossal cyst; ultrasound; radionuclide-imaging

1.4. Perioperative management

preoperative medical therapy of hyperthyroidism, thyroxine-replacement therapy, laryngoscopy

1.5. Indications, operative techniques, management of complications

alternative medical or radioisotope therapies, thyroidectomy, lymphadenectomy (central/lateral), techniques for preservation of the recurrent laryngeal nerve/external branch of the superior laryngeal nerve and parathyroid function, management of complications (recurrent nerve palsy, postoperative hypoparathyroidism, postoperative hemorrhage), retrosternal goiter, "minimally invasive" techniques and their controversies, operative strategies of recurrent disease

2. Parathyroids

2.1. Physiology and pathophysiology

understanding of the metabolism of calcium, magnesium and of phosphate. Activity of PTH on kidney, gut and bone. D Vitamins and its function. Measurement of PTH and an appreciation of the different terminal components. Functions of nephrogenic cyclic AMP in parathyroid physiology

2.2. Embryology, anatomy, pathology, genetics

embryological development and migration of parathyroid glands; typical, atypical and ectopic localisations; Histopathological morphology of pHPT/sHPT, genetics of familial forms of pHPT

2.3. Clinical presentation and clinical workup

clinical presentation of pHPT/sHPT; lithium-induced HPT; bone mineral density; ultrasound; Sestamibi-scan

2.4. Perioperative management

management of hypercalcemic crisis, management of preoperative vitamin D insufficiency; postoperative supplementation medication, workup of recurrent HPT

2.5. Indications, operative techniques, management of complications controversies and indication in asymptomatic pHPT; principles of IOPTH-monitoring and interpretations of its results, role of frozen section, bilateral neck exploration, focused parathyroidectomy; operative strategies in sHPT and familial-/lithium-induced HPT; management of parathyroid carcinoma, indication and management of recurrent HPT

APPENDIX B

Requirements for an endocrine surgical unit

- * under the responsibility of a specialized endocrine surgeon (preferably certified by the European Board of Surgery Qualification)
- * at least 150 endocrine surgical procedures per year

- * in house endocrinologist or endocrine department
- * multidisciplinary board or clinic at least monthly
- * access to:
 - * scintigraphic investigations (sestamibi-scintigraphy)
 - * radiological investigations (US, CT, MRI)
 - * fine needle aspiration and cytology
 - * hormone assays and genetic investigations

APPENDIX C:

Required attendance of at least 4 specialist meetings or postgraduate courses in endocrine surgery

Approved meetings and courses are

- * ESES biennial meetings or workshops
- * Annual/biennial meetings of national or international societies of endocrine surgeons (for example: AFCE, CAEK, BAETS, AAES, AsAES, IAES)
- * Postgraduate courses in endocrine surgery (for example: IAES-courses)

APPENDIX D:

Recommended minimal operative experience

This operative experience will be assessed from a Log Book and must be achieved within the last 3 years before applying to the exam.

Operations	Performed	Assisted
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*
*) at least 10 bilateral explorations demanded		