SYLLABUS FOR THE UEMS EBSQ NECK ENDOCRINE SURGERY EXAMINATION

SYLLABUS DEFINITION

This is an academic document that communicates course information and defines expectations and responsibilities in preparation for the UEMS EBSQ Examination in Neck Endocrine Surgery, leading to conferment of the FEBS Neck Endocrine Surgery.

WHY IS IT NECESSARY?

Because of the necessity to maintain standards. This need is a consequence of:

- Free movement of healthcare professionals in Europe
- Movement of patients and medical tourism
- The improving understanding of disease
- New technologies
- The evolution of disease
- The introduction of patient electronic record and establishment of benchmarks
- An aging and more complex population
- New requirements to remain in practice
- Shorter working hours and shorter period of training
- To ensure patient safety

WHAT IS ASSESSED?

- Knowledge
- Clinical and technical skills
- Attitudes
- Relating to patients
- Communication and interpersonal skills
- Teamwork and collaboration
- Management including self-management

In other words, all that leads to an enhanced quality of patient care and patient safety.

OBJECTIVES OF THIS SYLLABUS:

- To communicate information and define expectations and responsibilities for potential candidates, in their preparation for the UEMS EBSQ Examination in Neck Endocrine Surgery, leading to conferment of the FEBS Neck Endocrine Surgery.
- To help the designers of the assessments and examiners, leading to transparency, fairness, equity, maintenance of standards, Quality Assurance and Improvement and ultimately, patient safety.
- Setting the course towards convergence of Exit Examinations in Europe and beyond so as to approach a real Extra-European Higher Education Area which includes Medicine.

The objectives, knowledge, clinical skills and technical skills required are listed by chapters with reference to each main item.
Requirements for Board Certification of the Division of Endocrine Surgery (DES) in Neck Endocrine Surgery

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

Candidates for accreditation in Neck Endocrine Surgery must have in addition to a proper knowledge and experience of the principles and practice as defined by General Surgery (Appendix A):

1) a firm grounding in the basic and clinical science aspects of the organs and diseases with they should be familiar (Appendix B),
2) a training in an (neck) endocrine surgical unit for a minimum of 2 years (Appendix C),
3) an appreciation of relevant current research and clinical developments gleaned from attendance of at least 4 specialist meetings or postgraduate courses (Appendix D),
4) a defined minimum of operative experience in neck endocrine surgery (Appendix E),
5) at least two publications or abstracts.
APPENDIX A – COPY OF PART 7 (ENDOCRINE) OF THE SYLLABUS FOR THE EBSQ GENERAL SURGERY EXAMINATION

7.1 NECK SWELLINGS

OBJECTIVE: Assessment and management of neck swellings.


Investigation of neck swellings: diagnostic imaging, ENT assessment, pathology and biochemistry.


TECHNICAL SKILLS: Biopsy – FNA. Cervical lymph node biopsy.

7.2 THYROID GLAND

OBJECTIVE: Investigation and perioperative management of thyroid swellings and thyrotoxicosis Preop assessment: diagnosis and assessment of thyroid swellings and thyrotoxicosis.

Operative management: operative management of thyroid swellings (benign and malignant) and thyrotoxicosis.

Postoperative management: postoperative care after thyroid surgery.

KNOWLEDGE: Anatomy of the neck, in particular the thyroid and parathyroid glands. Pathophysiology of thyroid swellings: generalised/solitary; functioning/non-functioning.


Thyroid malignancy Differentiated, medullary, anaplastic, lymphoma.

Genetic implications of thyroid malignancy.

Principles of operation for thyroid swellings and thyrotoxicosis.

Complications of thyroid surgery.

Thyroid replacement therapy in benign disease.

Follow up and non-surgical management / treatment of thyroid malignancy.

CLINICAL SKILLS: History and examination.

Investigations: thyroid function tests, autoantibodies, FNA, Ultrasound, Isotope scan.

Indications for surgery Thyroxicosis, benign nodular disease, malignancy. Decisions for operative or non-operative management. Choice of operation.

Postoperative management. Postop bleeding, airway problems, hypercalcaemia.
Diagnosis and management of recurrent thyroid disease benign / malignant, MDT discussions.


### 7.3 PARATHYROID GLANDS and THYMUS

**OBJECTIVE:** Assessment and treatment of disorders of parathyroid function

Diagnosis /Assessment: Diagnosis and assessment of disorders of parathyroid function.

Operative Management: Understanding of the principles of surgery for disorders of parathyroid function including re-exploration of the neck.

Postoperative management: postoperative management after parathyroid surgery


Complications of parathyroid surgery. Options for and organisation of follow-up.


Postop complications: Bleeding, airway problems, hypocalcaemia.


### 7.6 MULTIPLE ENDOCRINE NEOPLASIA (MEN)

**OBJECTIVE:** Management of patients and families with proven or suspected MEN syndromes including MEN1, MEN2 and familial medullary thyroid cancer. A knowledge of the genetics and various presentations of patients with MEN diagnosis and management of MEN Disorders. Ability to diagnose and assess patients with MEN syndromes.

Operative Management. Postoperative management: Postoperative care, follow up.

**KNOWLEDGE:** MEN1, MEN2, familial medullary thyroid cancer. Genetics and screening. Pathophysiology. Clinical presentation. Subclinical disease. Natural history.

Diagnosis and management of medullary thyroid cancer, hyperparathyroidism. Indications and timing for surgery Recurrent MTC, parathyroid disease. Complications of organ related operation. Recurrent disease.
**CLINICAL SKILLS:** History and examination. Investigations Biochemistry, radiology, cytology/histology, genetic.

Management of at-risk patients / families counselling, endocrinologist and genetics consultation. Choice of appropriate operation. Postoperative management relevant to specific operation. Multidisciplinary team attitude.

APPENDIX B - Basic and Clinical Science - Neck Endocrine Surgery

Basic science

- 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

- 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.

1. Thyroid

1.1. Physiology and pathophysiology


1.2. Embryology, pathology, cytology, classifications, genetics

Embryological development of the thyroid gland; histology of benign thyroid disorders, classification of thyroid tumours, 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 haemorrhage), retrosternal goitre, "minimally invasive" techniques and their controversies, operative strategies of recurrent disease.

2. Parathyroids

2.1. Physiology and pathophysiology


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/tHPT; 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.

4. Pituitary
4.1. Physiology and pathophysiology

Structure, cells of origin, the basic metabolism and function of the anterior pituitary hormone TSH. Hypothalamic pituitary pathways and related releasing substances. Physiology of TSH including diurnal variation.
APPENDIX C - 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 (neck) endocrine surgical procedures per year
- in house endocrinologist or endocrine department
- multidisciplinary board or clinic at least monthly
- access to:
  - scintigraphic investigations (sestamibi)
  - radiological investigations (US, CT, MRI)
  - fine needle aspiration and cytology
  - hormone assays and genetic investigations
APPENDIX D - Required attendance of at least 4 specialist meetings or postgraduate courses in endocrine surgery

- 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 E - Recommended minimal operative experience

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<thead>
<tr>
<th>Neck Endocrine Surgery</th>
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<td>Operations</td>
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<td>Thyroid resections</td>
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<td>Recurrent thyroid operation</td>
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<td>Central/lateral compartmental lymph node clearance</td>
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<tr>
<td>Parathyroidectomy in HPT</td>
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*) at least 5 bilateral explorations demanded