

MALTA

SPECIALIST ACCREDITATION COMMITTEE

MEDICAL

TRAINING PROGRAMME

OTORHINOLARYNGOLOGY

Approved by SAC on 21st July 2009

(Logbook attached separately)

Higher specialist training in Otorhinolaryngology

1. Objectives

The formulation of a 6 year post-graduate intensive and structured programme for trainees to enter independent otorhinolaryngological (ORL/HNS) practice and achieve a standard of quality acceptable to Malta and the EU.

To produce consultants in ORL/HNS capable of fulfilling their duties within the Health Department to a standard acceptable to the Association of Surgeons of Malta (ASM) and the Specialist Accreditation Committee (SAC).

To identify those specialists in otorhinolaryngology and head and neck surgery who have special skills in teaching, research or those who are suitable for advanced training.

To develop attitudes during training which will encourage Continuous Professional Development.

2. Introduction

The six year programme must provide adequate clinical diagnostic, investigative and surgical experience in all aspects of the speciality on patients of all ages and in adequate numbers. The trainee must also acquire a thorough experience in the management of emergencies. The trainee is also expected to understand the principles of Health Service management and audit. The training programme, besides providing comprehensive clinical experience, should also offer adequate research opportunities as well as library and audio-visual facilities. Opportunities for the dissection and study of both anatomical and pathological material must be made available. The senior staff must be available for the regular discussion of both clinical and academic problems and for advice on the preparation of publications. Trainees must be encouraged to take their study leave to attend clinical meetings, courses and conferences and approved attachments. It is the duty of the trainer to encourage an interest in research and to support the trainee in acquiring time, money and apparatus involved.

The six year programme will normally consist of two parts. During the first two years trainees will enter into the rotation for their basic surgical training. At the end of the two years and having fulfilled the requirements trainees will proceed to the next part of their training as higher surgical trainees. Throughout the six years trainees will be expected to undertake and have knowledge of all the procedures listed in respective columns (see Appendices).

3. Registration with the SAC in Otorhinolaryngology

Trainees in Basic Surgical Training (Years 1 and 2 of the programme) must fulfill the necessary requirements to enter HST, including possession of the general MRCS (or equivalent) exam and the Diploma in Otolaryngology and Head and Neck Surgery.

4. Education Approval of Higher Surgical Training Programme

Educational approval of the training programme in the speciality is given by the SAC. The SAC will be responsible for inspection and educational approval of training programmes at prescribed intervals.

5. Training Programme

The training programme will be constituted so that the trainee will achieve increasing knowledge and clinical responsibility on a graduated basis throughout the six year period. The curriculum will cover the basic sciences and surgical procedures (as shown in Columns 1,2, 3 of the Appendices). At the end of their training and having fulfilled the prescribed requirements, trainees will be issued a Certificate of Completion of Specialist Training (C.C.S.T.) and can apply to be admitted to the Specialist Register.

Whereas this curriculum provides the basis for the requirements for the C.C.S.T. it does not take into account the requirements of subspecialisation and advanced surgical training.

The following principles are used for guidance in observing the trainees' progress :

- (a) As training progresses, there should be a clear hierarchy with increasing levels of responsibilities. It is reasonable for trainees to have an operating list of their own in the latter part of training, appropriate to their level of competence. The trainees' timetable should be sufficiently flexible to allow access to any work of importance by the trainer.
- (b) The trainee should be involved in the management and organization of the whole department. This should include organization of tutorials for junior staff and inter-departmental meetings such as ENT-Pathology and ENT-radiology meetings.
- (c) Daily business ward rounds, with all junior staff, led by the most senior trainee should be a feature of the timetable.
- (d) Appropriate annual study leave should be agreed with the Training Co-ordinator. This may be used to attend courses/conferences abroad and to obtain further post-graduate qualifications (such as M.Sc., M.Phil. and/or Ph.D.).
- (e) There should be regular educational activities, departmental audit and collaboration with other departments. There should be access to audio-visual and secretarial facilities for research work and teaching. Trainees should, at some period, be involved in undergraduate and postgraduate teaching of otorhinolaryngology and its basic sciences. The trainees should have access to office space of their own.

6. Log book

In order to ensure the acquisition of comprehensive experience in all aspects of the speciality, the trainee will be required to keep a personal register of operations performed during his or her period of training and this will be kept as a permanent record of the trainee's activity. All operations are to be entered into the log book provided by the SAC and this register of operative experience is to be signed by the trainer supervising the programme. The trainee must be given the opportunity to follow-up patients and to maintain an adequate record of this. The log book will be made available for the annual assessment.

7. Interviews and Assessments

During the programme trainees will undergo annual reviews by a Board nominated by the Surgical Specialist Training Committee, in which the various facets of training being offered will be thoroughly reviewed and any deficiencies in the trainee's progress identified and addressed. Admission to the successive year will be dependent on the result of this interview. Trainees will otherwise be constantly assessed by their trainers throughout the year and any deficiencies will be addressed as they become identified by the trainers. At the end of the 4th year of the programme, trainees will be required to sit for an assessment which can be written or viva voce, and which will be designed to determine the candidates' grasp of the theory of otolaryngological practice. Their admission to the fifth year of training will be decided during this assessment.

Trainees failing any of their assessments may be asked to improve their knowledge and proficiency in identified areas to a satisfactory degree before being admitted to the next year.

Annual Review

The trainee is to keep a **record** of training and experience, which must be endorsed **annually** by the **Trainer**. Trainees can only progress to the next year of the Training Programme following a successful assessment.

An **annual review** must also be carried out by a Board nominated by the Surgical Specialist Training Committee, composed of three members, including the **Head of Training** for Otolaryngology, to identify any problems encountered by the trainee and any deficiencies of the training programme.

The Surgical **Post-Graduate Co-coordinator**, appointed through a call for applications by the Health Division, will be responsible for implementation of this Training Programme.

The Co-coordinator is to set up and chair a single Surgical **Specialist Training Committee** for all surgical disciplines, including Otolaryngology, which will be responsible for the management and administration of Training Programmes in Surgery. The Committee will be composed of Surgical **Trainers** and must include the **Chairman of Surgery**.

Each Surgical Speciality will have a **Head of Training**, appointed by the teaching staff.

The Post-graduate Training Co-coordinator and the trainers must be on the Specialist Register of the Medical Council and should have been practicing the specialty for at least 5 years.

Examinations

The trainee is expected to successfully undergo the European Board Exam in Otolaryngology and Head and Neck Surgery before becoming eligible for the CCST.

8. Courses

Trainees should be encouraged to take established courses on endoscopic sinus surgery, head and neck surgery including rehabilitation, cosmetic surgery of the head and neck, paediatric otolaryngology, temporal bone surgery, advanced surgical otology and neuro-otology, audiology, phoniatry and ORS research methodology.

9. A period of training outside the clinical programme in Malta

Trainees should be encouraged to spend time abroad for further training in established centres. These programmes should be approved prospectively by the SAC. Such leave may not be taken during the first two years (BST). Trainees are asked to note that it is imperative to notify the SAC, in advance, of any significant changes to their training programme involving a move to another training centre outside Malta or a period of secondment overseas longer than six weeks, or a move into a research post. Recognition of the periods may be denied unless the trainee notifies the SAC of his or her intentions before taking up the post.

10. Research

Not all candidates will necessarily benefit from undertaking research. However, all trainees have to understand research methodology and basic statistics in order that they may be able to evaluate the literature as part of their continuing medical education.

Training in literature evaluation is best achieved initially by attending lectures or courses, followed up by regular meetings to discuss scientific articles (Journal Clubs) which are trainer-led.

Facilities to undertake research or audit should be available throughout the entire training period for each trainee. Not all trainees will require this time allocation and clinical duties would be substituted.

Research projects should be supervised by a distinguished trainer to whom the trainees will be accountable for these sessions in these periods. Each project should have clearly documented aims and methods. The supervisor will be required to report the progress of each project at regular intervals to the local training committee.

A trainee who wishes to undertake basic laboratory research (i.e. genetics, molecular biology or electrophysiology) can learn these techniques before completing HST requirements – within the six years - but preferably before completing the fourth year of training.

The number and type of papers published by a trainee, as well as any academic degrees obtained are likely to materially affect competitiveness for consultant appointments. However, it is expected for training purposes, that all trainees should, in their six year training period:

- (a) Carry out, under supervision, at least three audit projects where the outcomes of patient management are assessed. These should have been presented at least to a hospital meeting.
- (b) Carry out, under supervision, at least one research project, planned prospectively, have presented it to a regional or national professional meeting and have it accepted for publication.

10. General Management Training

This should take place as a continuum over the six year training period and the trainee should have the opportunity of taking part in management courses for clinicians and also should be exposed to, and involved in, the day to day management of his or her unit.

CURRICULUM

The training period will be divided into two segments.

BST-ORLHNS

Years 1 and 2

Basic training in ORL/HNS. The trainee must have gained experience in all the listed techniques. The rotation in other surgical disciplines will have given the trainee useful additional skills and information.

HST-ORLHNS

Years 3 & 4

These procedures are grouped together because of training rotations. Experience may be gained at different times. All trainees will be required to have gained sufficient exposure in a majority of the listed techniques.

Years 5 & 6

At this stage, trainees may refine the general skills learnt in the first four years with increasing personal responsibility. The trainees may be required to go to another centre overseas to gain necessary further experience.

CURRICULUM CONTENT

General Principles

Good medical practice and care in otolaryngology
General principles good practice : Managing oneself and working with others
The patient-doctor relationship, including communication and consulting skills
Population, preventive and social issues
Professional ethical and legal obligations
Risk and resource management
Appraisal, monitoring of quality performance, audit and clinical governance
Information management and technology
Continuing professional development (CPD), learning, teaching and training
Understanding the importance of probity

Basic Sciences

General anatomy, physiology and pathology will have been learnt as part of Basic Surgical Training with the relevant critical care component. Trainees should know the anatomy and embryology of the ear, nose, paranasal sinuses, pharynx, larynx, trachea, oesophagus, head and neck. They should also be familiar with the gross anatomy of the brain and intracranial contents, eyes, thorax, spine and related areas. They should have a detailed knowledge of the physiology of balance, hearing, olfaction, nasal function, speech, swallowing, endocrine glandular function (particularly thyroid, parathyroid and pituitary glands) and exocrine glandular function (particularly salivary glands). Teaching of these subjects may, in future, be aided by distance learning courses or reading lists.

Clinical Knowledge

Further clinical knowledge should also be acquired in the following areas:

Applied Microbiology

Common and important infections; HIV; TB and Syphilis; Control of transmission; Consent for testing; Notifiable diseases; Indications for and interpretation of results of common tests

Imaging

Ultrasound; Plain radiographs; Contrast imaging; Computerized tomography
Magnetic resonance imaging; PET and other newer modalities

Pharmaco-therapeutics

Pharmacology of drugs used in otolaryngology; Drug interactions; Common adverse reactions; Iatrogenic disorders

Acoustics:

The background physics and mathematics of acoustics.

Applied Pathology

Indications and interpretation of results of common biochemical and haematological tests; Macroscopic and microscopic appearances of common or important diseases found in otolaryngology

Applied Psychology

Presentation of common psychiatric disorders including anxiety, depression, obsessive compulsive disorder, and somatisation disorder as they effect otolaryngological practice; Functional disorders in otolaryngology

Epidemiology

Medicolegal Issues

General Clinical Practice

Conditions affecting the Ear, Nose and Throat

The following areas should be considered for each of the disorders listed :

The natural history of the untreated condition, including whether acute or chronic; Risk factors; Prognosis; An accurate idea of the prevalence and incidence across age range and ethnic group including any changes over time; Typical presentations; Diagnostic features; Recognition of features that would indicate extra concern; Treatment including initial, emergency and continuing care.

- Disorders of the Ear and Petrous Temporal Bone
- Disorders of Balance
- Disorders of Hearing
- Disorders of Smell
- Disorders of the Nose and Paranasal Sinuses
- Disorders of the Mouth
- Disorders of Swallowing
- Disorders of the Larynx and Pharynx
- Disorders of the Voice
- Disorders of the Neck

These disorders will include congenital and genetic conditions, infections, inflammations, trauma, tumours, iatrogenic conditions, degenerative conditions, endocrine and metabolic diseases.

A detailed knowledge of the teeth and cervical spine, eyes and respiratory system will not be expected, but trainees will be expected to know when to seek opinion from an appropriate specialist.

Clinical Competencies

Trainees will be expected to develop knowledge and experience of the areas and procedures listed below:

General Competencies

Use of antibiotics in the surgical patient
Use of blood and its products
Familiarity with the appropriate clinical use and limitations of technology used in ORL practice, eg endoscopes, microscopes, powered instrumentation, diathermy, lasers
Pain relief in surgery
Thrombo-embolic prevention and management
Wound care and nosocomial infection
Suture techniques and materials
Initial assessment and management of airway problems
Initial management of facial fractures

Radiology

Plain films of the head, neck, sinuses and chest
CT scans of the sinuses, petrous bone, head, neck and chest
MRI scans of the sinuses, brain, head, neck and chest
Contrast radiology of swallowing
Sialography
Ultrasound of the neck
Common scintigraphy used in otolaryngology

Neurology

Clinical neurological examination
Ophthalmoscopy
Lumbar puncture
Electromyograph
Electroneuronograph
Electroencephalograph

Medical Statistics

Concepts used in evidence-based medicine including: specificity, sensitivity, absolute risk, absolute risk increase and reduction, hazard ratio, negative predictive value, number needed to harm, number needed to treat, odds, odds ratio and relative risk.
Basic statistical concepts, sampling, inclusion and exclusion criteria, bias, confidence intervals, prevalence, incidence, probability and interpretation of results of common statistical tests of parametric and non-parametric data.
Research design, limitations and strengths of methodologies including case control, cohort and pilot studies. Questionnaire design. Quantitative studies and randomized controlled trials. Research results – reliability, validity and generalisability.

Meta-analysis and systematic reviews.
 Systematic appraisal of research papers.
 Application of results in the clinical context.
APPENDIX 1 – RHINOLOGY

YEAR 1, 2	YEARS 3 & 4	YEARS 5 & 6
<ul style="list-style-type: none"> • Clinical examination of the nose & sinuses • Assessment of nasal • Evaluation of sinus imaging • symptoms • Nasal cautery • Nasal packing • epistaxis • Drainage of septal haematoma • Basic septal surgery • Antral lavage • Turbinate surgery • Foreign body removal • Nasal fractures • Nasal polyps • Nasal antrostomy • Diagnostic nasal endoscopy 	<ul style="list-style-type: none"> • Basic F.E.S.S. • Endoscopic polypectomy/antrostomy • Revision septoplasty • Frontal sinus trephine • Septo-rhinoplasty • Ligation ethm. artery • Ligation max. artery • Rhinophyma • Olfaction and taste testing • Rhinometry • Respiratory function tests • Nasal smears • Immunology and skin tests 	<ul style="list-style-type: none"> • Augmentation/reduction /Revision rhinoplasty • Lateral rhinotomy • Endoscopic Fronto-ethmoidectomy • Open ethmoidectomy • Osteoplastic flap • Angiofibroma • Septal dermoplasty • Hypophysectomy • Young's operation • Extended application of endoscopic surgery (orbital decompression, dacryocystrhinstomy, cerebro-spinal fluid leakage, mucocoeles)

APPENDIX 2– OTOTOLOGY

YEARS 1, 2	YEARS 3 & 4	YEARS 5 & 6
<ul style="list-style-type: none"> • Clinical examination of the ear; microscopes • Aural toilet & dressing • Myringotomy and grommets • Foreign bodies • Assessment of hearing and vestibular function • Pure Tone Audiometry • Tympanometry • Otoacoustic emissions • Basic vestibular tests • Basic assessment of childhood deafness • Rehabilitation of the severely deaf adult • Hearing aids • Speech and language 	<ul style="list-style-type: none"> • Myringoplasty • Cortical mastoidectomy • Modified radical mastoidectomy • Radical mastoidectomy • Otoplasty • Osteomas • Brainstem response evoked audiometry • Cortical evoked audiometry • Otoacoustic emissions • Electronystagmography • Rotational chair test • Postureography • Specialised paediatric/adult audiometry 	<ul style="list-style-type: none"> • Use of lasers in the middle ear • Meatoplasty • Revision middle ear surgery • Ossiculoplasty • Stapedectomy • Canal-up t.plasty • Saccus decompression • Vestibular nerve section • Acoustic neuroma surgery • Facial nerve grafting • Congenital ear surgery • Petrosectomy • Cochlear implants • Rehabilitation of facial palsy

assessment		
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APPENDIX 3 – MOUTH, PHARYNX AND OESOPHAGUS

YEARS 1, 2	YEARS 3, 4	YEARS 5, 6
<ul style="list-style-type: none"> • Adeno-Tonsillectomy • Bleeding after Ts/Ads • Peritonsillar abscess Diagnostic endoscopy Common diseases of the oral cavity • Basic dental pathology 	<ul style="list-style-type: none"> • Excision of benign tongue lesions • Biopsy nasopharynx • Uvulopalatopharyngoplasty • Swallowing assessment and rehabilitation • Assessment and therapy of swallowing disorders • Oesophageal and pharyngeal manometry • Coblation surgery 	<ul style="list-style-type: none"> • Pharyngeal Laser surgery • Excision pharyngeal pouch including endoscopic • Surgery for ranula •

APPENDIX 4 – ENDOSCOPY

YEARS 1, 2	YEARS 3, 4
<ul style="list-style-type: none"> • Flexible naso-endoscopic technique in adults • Rigid office endoscopy in adults 	<ul style="list-style-type: none"> • Diagnostic and therapeutic oesophagoscopy on adults and children • Adult and paediatric bronchoscopy

APPENDIX 5 – LARYNGOLOGY

YEARS 1, 2	YEARS 3 & 4	YEARS 5 & 6
<ul style="list-style-type: none"> • Indirect laryngoscopy • Direct laryngoscopy and removal of foreign bodies • Principles of clinical phoniatry • Speech Rehabilitation 	<ul style="list-style-type: none"> • Adult tracheostomy • Child tracheostomy • Microlaryngoscopic surgery and laser skills • Laryngocoele • Video stroboscopy • Speech disorders in children • Speech and hearing problems in cleft palate 	<ul style="list-style-type: none"> • Repair of laryngo-tracheal stenosis • Advanced assessment of voice – laryngography and spectography • Cord lateralization • Cord medialization • Laser aryepiglottopexy in children

APPENDIX 6 – THE NECK

YEARS 1, 2	YEARS 3, 4
<ul style="list-style-type: none"> • Neck examination • FNAC • Neck abscess • Excision lesions of skin appendages 	<ul style="list-style-type: none"> • Gland biopsy • Removal of branchial and thyroglossal cysts • Fistula care • Wound management • Thyroidectomy - partial and total

APPENDIX 7 – HEAD AND NECK ONCOLOGY

YEARS 1, 2	YEARS 3, 4	YEARS 5, 6
<ul style="list-style-type: none"> • Combined clinic experience • Assessment of upper aero-digestive tract symptoms • Principles and complications of radiotherapy • Principles and complications of chemotherapy 	<ul style="list-style-type: none"> • Excision of skin tumours • Sking grafting • Stomal revision • Tracheo-oesophageal puncture • Swallowing rehabilitation • Speech rehabilitation 	<ul style="list-style-type: none"> • Radical neck dissection • Modified neck dissection • Repair of fistula • Skin and myocutaneous flaps • Free flaps • Partial laryngectomy including supraglottic and near total • Total laryngectomy • Laryngopharyngectomy • Maxillectomy (partial, medial, craniofacial) • Approaches to the infratemporal fossa • Glossectomy • Commando operation

APPENDIX 8 – SALIVARY GLANDS

YEARS 1, 2	YEARS 3, 4	YEARS 5, 6
<ul style="list-style-type: none"> • Assessment of salivary gland disease • Salivary gland imaging 	<ul style="list-style-type: none"> • Minor gland biopsy • Duct surgery including diversion • Intra-oral calculus • Submandibular gland excision 	<ul style="list-style-type: none"> • Superficial parotidectomy • Total parotidectomy

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APPENDIX 9 – SUBSPECIALTY TRAINING

Whereas the curriculum is designed to train candidates to an appropriate general specialist level, sub-specialty training should be encouraged. Any higher surgical training should be carried out after the sixth year of the curriculum, and should require time in another recognized centre abroad for further advancement or sub-specialty training. The sub-specialty interests include Paediatric Otolaryngology, Advanced Rhinology, Skullbase Surgery, Advanced Otology and Otoneurosurgery, Advanced Head and Neck Oncology or Phoniatriy.

Where trainees have a special interest in research, they may decide to take a longer period out of training if they wish to pursue an academic career or seek to obtain a higher degree. The application for approval should be made to the SAC before taking up the post.

Outline for training in other subspecialties

Advanced Otology and Otoneurosurgery

Complicated and revision middle ear surgery; the surgery of Cochlear and Brainstem Implants; approaches to the middle cranial fossa

Advanced Rhinology and Rhinoneurosurgery

Complicated Rhinoneurosurgery to and beyond the clivus, including hypophysectomy; approaches to the anterior cranial fossa

Skull Base Surgery

Those intending to specialize in skull base surgery will have to seek a post where they can work within a combined skull base group in conjunction with neurosurgeons, maxillofacial and plastic surgeons. There should be access to all modern imaging techniques. There should be adequate number of referrals for the trainee to acquire proficiency in anterior, middle and posterior skull base surgery, both in benign and malignant disease.

Paediatric Otorhinolaryngology

Management of routine ORL disease in the child with developmental, immunologic and other systemic disease; Congenital ear surgery; Special paediatric audiology; Choanal atresia repair; Paediatric endoscopy (bronchoscopy, oesophagoscopy, microlaryngoscopy); Assessment and management of chronic airways disease; Management of congenital and developmental malformations of the head and neck;

Bone anchored hearing aids and Cochlear implants where the candidate also has an interest in Advanced Otoneurosurgery.

Head and Neck and Reconstructive Surgery

Management of complicated Head and Neck Surgery including Oncology and reconstruction. Specific skills in vascular and plastic surgery will need to be acquired.

Phoniatry

Trainees wishing to learn this specialty must train in a centre where the trainer routinely uses videostroboscopy, glottography, spectrography and air flow measurements. Experience in subjective assessment from speech pathologists should be available. There should also be a particular interest in phonosurgical procedures.