

UNION EUROPEENNE DES MEDECINS SPECIALISTES (UEMS) EUROPEAN UNION OF MEDICAL SPECIALISTS (UEMS)

UEMS ORL SECTION AND BOARD

SUBSPECIALTY TRAINING PROGRAMME IN ADVANCED OTOTOLOGY & NEURO-OTOLOGY

INTRODUCTION

The UEMS-ORL Section and Board of Otorhinolaryngology-Head and Neck Surgery have developed a European training program for the subspecialty of Neuro-Otology. This training program is suitable for trainees who have successfully completed post-graduate (specialist) training in Otorhinolaryngology as defined in the UEMS ORL section and board accepted training program of Otorhinolaryngology (<http://orluems.com>).

This program will serve as a guideline for approved training centers to enable the Neuro-Otology Fellows to meet the European Standard, as set out by the European Board of UEMS ORL section. The aim of such training is to move towards a competency-based assessment of graduates.

The Scientific Background of the training program is executed by the European Academy of Otolary and Neurotology (EAONO).

DEFINITION

Otorhinolaryngology-Head and Neck Surgery (ORL-HNS) is the specialty which deals with functions, diseases and disorders, of children and adults; of the external, middle and inner ear, the temporal bone and lateral skull base; the nose and paranasal sinuses, lacrimal glands and anterior skull base; the oral cavity, pharynx, larynx, trachea, esophagus, as well as the neck which includes thyroid and salivary glands including adjacent structures in the head and neck. The specialty training includes investigation and treatment of diseases and disorders that affect the auditory, vestibular, olfactory and gustatory senses; and includes disorders of the cranial nerves; together with human communication in respect of speech, language and voice disorders; and conditions that affect mastication and upper swallowing and digestion. Other conditions diagnosed by the specialty of Otorhinolaryngology, Head and Neck Surgery, but located in adjoining anatomical areas, will be treated in close co-operation with those related specialties.

The subspecialty of Advanced Otology & Neuro-Otology is composed of surgeons who have acquired during their subspecialty training thorough knowledge and practical skills in the history-taking, examination, investigation and treatment planning (surgical and non-surgical treatment) of benign and

malignant conditions, malformations and trauma of the temporal bone as defined in the accompanying log book.

THE TRAINING CENTER OR INSTITUTION

Suitable training centers can apply for accredited recognition as an advanced training center for the subspecialty training program in Neuro-Otology. The applications will be advertised annually on the UEMS ORL section web pages and throughout the European community. EAONO acts as the part for selecting or agreeing the center. The Program Directors are elected among the candidates that will be introduced by the Officers and Teaching Working Group of EAONO (Neurotology Fellowship Coordination Committee – EAONO NFCC). Each center will apply in writing and this will be reviewed by the Accreditation Board by being in consensus with EAONO NFCC). Centers will be approved after a site visit and/or approval of EAONO NFCC. The development of a Fellowship program in Advanced Otology & Neuro-Otology is deemed most likely to succeed when integrated into existing training programs to enhance rather than compete for educational purposes. A working timetable for each Fellow must be submitted in writing at the time of application. Modification and change of this timetable may result following discussions, and must be reviewed annually and for each new Fellow. Approval as a training center would be renewable every 5 years, following further assessment. The program is subjected to modification in condition UEMS or EAONO NFCC suggests.

REQUIREMENTS OF THE TRAINING CENTRE

1	Evidence of centralization of patient care in Advanced Otology & Neuro-Otology.
2	Evidence of sustained clinical volume and activity in the management of Advanced Otology (Stapes Surgery, Cochlear implant surgery) & Neuro-Otology cases over the preceding 5-year period (Recommended >100 new cases per year).
3	Evidence of modern contemporary management of Advanced Otology & Neuro-Otology cases by a multidisciplinary team approach.
4	Availability of adequate diagnostic resources in imaging, audiology, electrophysiology and vestibular tests.
5	Facilities and time available for didactic learning opportunities e.g. Temporal bone and skull base laboratory.
6	Facilities and time available for basic science and clinical research.
7	Facilities for study and availability of a library with textbooks, journals, videos, internet etc.

THE FELLOW

Admission to the subspecialty training program in Advanced Otology & Neuro-Otology is contingent upon completion of postgraduate (specialist) training in Otorhinolaryngology-Head and Neck Surgery. The Fellow must be registered as a Specialist in ORL-HNS.

1	Applications will be made in writing and supported by references from three clinical referees, at least two of which will be from current Trainers / mentors.
2	Previous clinical and surgical work in the subspecialty will be taken into consideration in the selection process.
3	Candidates for selection will be requested to attend for interview. Appointment to the training program will be competitive.
4	The training program will be for a period of 2 years full time or equivalent training and will not be extended for any additional period of time. The evaluation is competency-based.
5	The Fellow must participate in all aspects of clinical activity and must not be considered as a resident in general ORL-HNS.
6	Depending on individual Fellows needs, a period of time may be seconded to allied specialties such as Audiology and Neurosurgery for a period of no longer than 3 months each. Approval of the supervising Program Director will be required.
7	Participation in the development and implementation of interdisciplinary Neuro-Otology research is to be strongly encouraged.
8	A major contribution to at least one scientific peer-reviewed publication during the program is a minimum requirement.
9	Appropriate time must be allocated during the weekly working program for compulsory study (eg. journals, text books, courses, congresses etc.)
10	Each year the Fellow must return to the Board, an evaluation form on the program content and structure, supervision and expertise of the Trainers, including the Program Director.

THE PROGRAM DIRECTOR

1	The Program Director must have a National and International reputation as an Advanced Otology & Neuro-Otology surgeon, with more than 10 years of professional experience and with suitable experience in teaching and training. The Program Directors are elected among the candidates that will be introduced by EAONO NFCC.
2	Each Program Director preferably be supported by his national ORL-HNS Society, if one exists.
3	The Hospital Administrator or Chief Executive, the Dean of the Medical School and the Professor of ORL-HNS or equivalent Academic Lead must support the development of the Fellowship program in Neuro-Otology and the Program Director.
4	The Program Director must contribute sufficient time to the program to assure adequate leadership.
5	The Program Director must demonstrate an interest in teaching, as well as demonstrating a track record in education and mentorship, including participation in regional and national scientific societies, presentations and publication of scientific and clinical studies and/or active participation in research as it pertains to Neuro-Otology.
6	At least two "full-time" surgical faculty members should be committed to the training program, to assist the Program Director.
7	The use of Fellows exclusively for expansion of clinical practice or medical student / residency training is strictly prohibited.

THE PROGRAM

CLINICAL AND ACADEMIC

1	Programs must develop a structured curriculum with defined goals and objectives in consensus with EAONO.
2	Clinical, basic science and clinical research conferences as well as seminars and critical literature review activity pertaining to the subspecialty, must be conducted regularly and as scheduled.
3	It is essential that the Fellow participates in planning and conducting conferences. Both the faculty and Fellow must attend and participate in multidisciplinary conferences.
4	Fellows must have the appropriate supervised opportunities to develop skills in providing consultation and communication with colleagues and referring clinicians.
5	Fellows training must involve increasing responsibility in both inpatient and outpatient environments and should culminate in significant patient management responsibilities spent within the institution.
6	Programs must provide structured clinical opportunities for Fellows to develop advanced skills in Advanced Otology & Neuro-Otology.
7	On completion of training the Fellow must have had a cumulative experience sufficient to become a senior operating or teaching surgeon.
8	Clear lines of responsibility between Fellows and trainees must be defined at the commencement of each stage of training and for clinical duties and the duration of training.
9	The working relationship between the Fellow and the resident trainees must be complementary and must enhance the educational experience.

EVALUATION

1	The Program Director must establish procedures for evaluating the clinical and operative competency of the Fellow. The Fellow will document his / her progress by keeping the UEMS log book of Advanced Otology & Neuro-Otology subspecialty training.
2	<p>Faculty Evaluation</p> <p>The training faculty must evaluate the fellow on a six monthly basis and must include teaching ability and commitment, clinical knowledge, operative experience and academic contributions.</p>
3	<p>Program Evaluation</p> <p>There should be documented evidence of periodic self-evaluation of the program in relation to the educational goals, the needs of the Fellow and the teaching responsibilities of the faculty.</p>
4	At the end of training the Program Director is required to sign off the Fellow as having successfully completed the Fellowship in Neuro-Otology.

CERTIFICATION

Besides the UEMS certification; EAONO as being the Scientific partner of Fellowship Program
Contributes to the Certification. European rules are also considered to make it applicable as European
Diploma.

CONTENT OF THE LOGBOOK

The log book is divided into four sections:

I A. II B. III C. IV D

Knowledge, experience and skills are tabulated in three sub-sections:

A Diagnostic Procedures

B Non-Surgical Management

C Surgical Management

The Fellow must have knowledge and understanding of the diagnostic procedures and non-surgical management.

The columns in the log-book in the sub-section (C) surgical management are divided into two sections.

1	<p>General</p> <p>Under this heading all items are listed which must be experienced by every Fellow by the end of the training, in order to achieve and maintain the highest standards and to fulfil the recommendations of the UEMS ORL Section and Board.</p>
2	<p>Advanced</p> <p>Under this heading the skills and operative managements are listed, which the Fellow is not expected to be able to perform during this European Training program. However, all Fellows should have knowledge of these methods.</p>

The progression of the Fellow must be recorded annually with the number of procedures performed in three categories:

(a)	Fellow assists the Trainer.
(s)	Fellow requires supervision / assistance by the Trainer whilst he / she performs the procedure / management.
(i)	Fellow performs the procedure / management independently with the Trainer available.

For example

	1st year			2nd year		
	a	s	i	a	s	i
Trans-labyrinthine approach	8	4	1	4	10	5

The relevant Trainer should endorse by signing and dating in column 3, when the Fellow has achieved competency with each particular management or procedure.

CHARTERS ON TRAINING AND VISITATION

Fellows are advised to familiarize themselves with the UEMS Charter on Training of Medical Specialists (www.uems.net). The ORL Section and Board amended this Charter in June 2001 in relation to the requirements for the Specialty of ORL-HNS. The amended document can be found on the Section Website at www.orluems.com.

The website also includes UEMS Charters on:

- Continuing medical education.
- Quality assurance.
- Inspections of training centers.

The information for the logbook may also be collated electronically on <http://orluems.com>.

RECOMMENDED LITERATURE

1. Mawson's Diseases of the Ear Stuart Radcliffe Mawson, Harold Ludman
2. Otolaryngology and Lateral Skull base Surgery Oliver Adunka, Craig Buchman
3. Atlas of Neurotology and Skull Base Surgery Robert Jackler
4. Atlas of Temporal Bone and Lateral Skull Base Surgery Mario Sanna
5. Microsurgery of the Skull Base Ugo Fisch, Douglas Mattox

SCIENTIFIC JOURNALS (Last two years issues, relevant articles)

1. Acta Oto-Laryngologica
2. Archives of Otolaryngology Head and Neck Surgery
3. Clinical Otolaryngology
4. The Laryngoscope
5. Otolaryngology and Neurotology
6. European Archives of Otorhinolaryngology and Head and Neck
7. Skull Base
8. The Journal of International Advanced Otolaryngology

I. BASIC OBJECTIVES

The Fellow must have extended knowledge of relevant aspects in:

1	Infection control
2	Antimicrobial therapy
3	Imaging
4	Hemostasis
5	Wound healing
6	Basics in plastic and reconstructive surgery
7	Soft tissue and bone traumatology
8	Immunology
9	Endocrinology
10	Psychosomatic management
11	Medical quality control
12	Ethical principles / consent for operation
13	Social welfare legislation
14	Laboratory procedures
15	Laboratory investigations,

II. NEURO-OTOLOGY

A. DIAGNOSTIC PROCEDURES	
a) CLINICAL EXAMINATION	
1	Clinical hearing, vestibular function and nerve function tests
2	Bed side vestibular tests
3	Neuro-otological examination
b) HEARING FUNCTION	
4	Basic hearing tests such as Impedance audiometry, pure tone & speech
5	Oto-acoustic emissions (OAEs)
6	Evoked response audiometry (early and mid latencies)
c) VESTIBULAR FUNCTION	
7	Electro / Video-nystagmography
8	Posturography
9	Rotating chair test
10	VHIT
11	VEMPs
d) FACIAL NERVE TESTING	
12	Topodiagnostic testing <ul style="list-style-type: none"> • Schirmer's test • Stapedial reflexes
13	Neurophysiological testing <ul style="list-style-type: none"> • EMG • ENoG • MST
e) INTERPRETATION OF IMAGING	
18	Conventional X-Rays
19	CT, MRI scanning
20	Angiography
21	PET scanning, Radionuclide Scanning

The Fellow must have extended knowledge of the following procedures / managements:

B. NON-SURGICAL MANAGEMENT			
		Date when knowledge is achieved	Signature of Trainer
1	Sensorineural hearing loss		
2	Tinnitus		
3	Vertigo and disequilibrium		
4	Facial nerve paresis		
5	Vestibular Schwannoma		
6	Post-operative care		
7	Pharmacological treatment		

C. SURGICAL MANAGEMENT					
		General			Advanced
		a	s	i	
1	Temporal bone dissection			X	X
2	Stapes surgery				X
3	Middle ear implants				
4	Cochlear implant surgery including the techniques on inner ear malformations				X
5	Management of Perilymph and CSF Gushers				x
6	Endolymphatic sac decompression				X
7	Neurectomy (Vestibular nerve section) by Translab, Retrolab, Retrosigmoid, Middle Fossa				X
8	Vestibular Schwannoma surgery by Translab, Retrolab, Retrosigmoid, Middle Fossa				X
9	Facial nerve decompression and grafting by Translab, Middle Fossa				X
10	Glomus tumour surgery				X
11	Petrose bone surgery by Translab, Transotic, Transcochlear				X
12	Auditory Brain-stem Implant surgery				X
13	Endoscopic approaches for advanced otology and skull base techniques				X
Repair of injuries					
14	Middle and inner ear including nerves, vessels and MCF / PCF dura				X
Surgery of tumors					
15	Middle and inner ear including nerves, vessels and MCF / PCF dura, Lateral skull Base, infratemporal Techniques				X
Intraoperative management					
16	Intraoperative monitoring of cochlear and facial functions				X
17	Intraoperative navigation				X