

Global Training in ORL-HNS

Training of otolaryngologists in South America

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Objectives of training otorhinolaryngology specialists

General

The general objective of training in otorhinolaryngology is to study, improve, and build up knowledge and develop skills to solve integrally problems related to medical and surgical areas of the specialty.

Upon concluding the training, trainees should be capable of developing prevention and promotion actions, clinical and surgical treatment, and rehabilitation and investigation activities in a specific area of the specialty, with permanent self-development.

Specific

Specialists in otorhinolaryngology should be capable of diagnosing pathologies of the ear, nose, pharynx, larynx, neck, salivary glands and treating them efficiently.

Upon concluding the training, trainees should rely on theoretical and practical knowledge and be able to practise competently the specialty of otorhinolaryngology and head and neck surgery according to the needs of the community and the resources available. They should be capable of developing research projects.

Knowledge should be developed following a programme of levels of complexity:

(1) Level I

- A. Perform correctly the clinical history and basic physical examination of an otorhinolaryngology patient.
- B. Order and interpret correctly laboratory tests and clinical analysis.

- C. Order and interpret correctly radiological studies such as simple X-ray, computed tomography (CT) scan, polytomography, scan-nography and magnetic resonance imaging (MRI).
- D. Manage correctly the pharmacological therapy most commonly used in the specialty.
- E. Know embryology, anatomy, histology, physiology and phylogeny of structures concerning the specialty.
- F. Perform minor surgeries, such as skin biopsy, head and neck mucosa, myringotomy, tonsillectomy, adenoidectomy.
- G. Provide care for minor emergency cases: epistaxis, tracheostomy, removal of foreign bodies, facial trauma and facial skin sores.
- H. Information technology: know about application of diagnostic and surgical procedure codes and their use in studies and research projects.

(2) Level II

- A. Evaluate hospitalized patients defining treatment, medication, type of dressing and complementary exams.
- B. Dissect temporal bone, nose, paranasal sinuses, head and neck.
- C. Diagnose and treat correctly inflammatory and traumatic pathologies of ear, nose, paranasal sinuses, tonsil, pharynx, larynx and neck.
- D. Diagnose and treat correctly emergencies, facial fracture, temporal bone fracture, traumatic lesions of facial nerve, laryngeal trauma, complication of otitis, sinusitis and infections of neck deep spaces.
- E. Perform surgeries such as rhinoplasty, septoplasty, endoscopic and microscopic surgery of paranasal sinuses, osteoplasty, reduction of

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open and closed facial fractures, mentoplasty, otoplasty, laryngeal microsurgery, tympanoplasty, mastoidectomy.

- F. Diagnose and treat patients with vertigo.
- G. Rehabilitate deaf patients.
- H. Plan investigation protocols.

(3) *Level III*

- A. Diagnose and treat correctly congenital malformations of external and middle ear, facial paralysis and tumours of external and middle ear.
- B. Diagnose benign and malignant tumours of nose, paranasal sinuses, mouth, pharynx and larynx.
- C. Know indication and techniques for major surgeries, such as: resection of benign and malignant tumours of nose, paranasal sinuses, resection of benign and malignant tumours of head and neck, partial and total laryngectomy, neck ganglion dissection, orthognathic surgery of congenital anomalies and maxillofacial reconstructive surgeries, facial plastic surgery, blepharoplasty, rhytidoplasty, reconstruction of nose, ear, lip and eye lid, stapedectomy, facial nerve decompression, endolymphatic sac.
- D. Diagnose and treat tumours of the cerebello-pontine angle.
- E. Know indications and surgical techniques for aging: facial rejuvenation, blepharoplasty, endoscopic frontoplasty, cervical-facial rhytidoplasty and laser application.
- F. Participate in investigation projects.

Minimum criteria for training of specialists

Criteria for training of specialists vary in the different countries of the continent. The first divergence derives from minimum qualifications for access into programmes of specialization. In Venezuela, it is required from candidates to have already taken one year of surgery training before joining the three-year specialization course. In the remaining countries, this requirement is not considered essential and the specialist develops surgical training throughout the specialization. However, most services, especially those in universities, include a three to 12 month programme in general surgery.

Another major difference concerns head and neck surgery. In countries such as Brazil, head and neck surgery is a separate specialty and its training may be conducted from general surgery, apart from otorhinolaryngology. In Colombia, otorhinolaryngology and head and neck surgery are one single specialty and the training in the specialty comprises both areas.

The other differences refer to programme formats. In order to standardize criteria, on 30 April, 2000 during the 1st Meeting of IFOS for South and Central America, a document signed by six countries (Bolivia, Argentina, Uruguay, Chile, Paraguay and

Brazil) was submitted containing a proposal of minimum requirements for training of specialists in otorhinolaryngology.

These criteria also meet the minimum requirements of all the other countries, according to the information provided by their representatives. Each country or institution would be able to expand or adapt them according to local convenience, capacity and availability of resources in order to accomplish the goals of training specialists.

The proposals includes the following minimum requirements:

(1) *General characteristics of training*

- Duration of three years;
- Preceptor/trainee ratio: 3:1 to 5:3;
- Three beds per trainee.

(2) *Required service infrastructure to be accredited as a training centre:*

(a) *Equipment*

- Audiometer;
- Impedanciometer;
- Material for conditioned audiometry;
- Electronystagmography;
- Auditory evoked potential;
- Nasal telescope 30°;
- Laryngeal telescope 70°;
- Flexible fibrescope (nasopharyngolaryngoscope).

(b) *Facilities*

Facilities	Units
Office room	5
Inpatient beds per trainee	3
Operating room	2
Emergency room	1
Room for audiometric exams	1
Room for vestibular exams	1
Room for endoscopic exams	1
Library (with videos and internet access)	1
Auditorium	1
Lab for dissection and technique	1

(3) *Number of procedures per year of training*

Procedures	1st Year	2nd Year	3rd Year
Endoscopic examination	0	30	60
Audiological examination	20	10	5
Vestibular examination	20	40	10
Emergency procedure	100	100	30
Buccopharyngeal surgery	30	20	10
Laryngeal surgery	2	10	20
Otological surgery	10	10	15
Nasosinusal surgery	10	20	15
Head, neck and skull base tumour surgery	5	10	15
Trauma and facial aesthetic surgery	5	10	15

(4) *Pedagogical Programme*

Implementation and development of programme in each year depend on the characteristics of each service; however, at the end of the third year, trainees are expected to have completed the whole basic programme. Trainees will be required to be consistently present throughout the basic programme and there will be final written and practical

tests at the end of each year. The preparation of a monograph is optional. Development of further knowledge and practice of any sub-specialty should be carried out in subsequent years.

(a) Units of training and percentage of hours

Units	% of hours
Ambulatory	25
Operating room	17
Emergency room	20
Inpatient unit	20
Nursery	*
Obstetric centre	*
Public health centre	*
Intensive care unit	*
Others	*

*to be defined by each institution

(b) Compulsory training sessions and percentage of hours

Training sessions	% of hours
Buccopharyngology, stomatology and laryngology	15
Otology and otoneurology	20
Rhinology and sinusology	20
Head, neck and skull base tumours	15
Emergency in otorhinolaryngology	15
Trauma and facial aesthetic surgery	15

(c) Compulsory courses and minimum annual hours

Courses	1st Year	2nd Year	3rd Year
Dissection of temporal bone	24 hours	24 hours	—
Neck dissection	—	24 hours	24 hours
Nasosinusal dissection	—	24 hours	24 hours

(d) Theoretical and complementary activities and minimum annual hours

Activities	1st Year	2nd Year	3rd Year
Discussion of clinical cases	60	60	60
Anatomopathological sessions	40	40	40
Discussion of scientific articles	40	40	40
Seminars	40	40	40

Professional profile

A physician who has a specialization in otorhinolaryngology should have at least the following characteristics: deep knowledge of all areas of the specialty; emotional stability; decision-making skills; excellent interpersonal relationship; ability to skillfully manage tense situations; artistic spirit in order to manage the areas of facial cosmetics.

New specialists will be able to practise profession in their community, both in rural or urban areas. They should abide by the norms set for the specialty and keep an on-going process of updating. If they decide to work as faculty in universities or other

institutions, they will be able to transmit, teach and train undergraduates or graduates in the field of otorhinolaryngology.

They should practise the profession according to ethical principles and maintain an investigative spirit to welcome scientific breakthroughs.

Occupational profile

New otorhinolaryngologists should be able to: organize services of otorhinolaryngology in both public and private settings; manage the principles of occupational health in otorhinolaryngology; organize administratively an otorhinolaryngology office; design, manage and carry out programmes of care, teaching and research in sub-specialties of otorhinolaryngology.

Final comments

In South America, our geographical and cultural frontiers are flexible due to the common Iberian background that keeps us together. Despite our closeness, medicine in our countries has been constantly influenced by other continents, which in turn maintain very distinct traits one from the other. As a result, medical intervention among us has become diversified and separated. However, especially after the second half of last century, owing to access to means of communication, development of research centres and professional training and the creation of common markets, physicians became closer. The exchange of information showed a trend towards having a common curriculum for training of professionals in our countries. We, in otorhinolaryngology, have already overcome the initial phase of analyzing needs and now the time has come to adopt a minimum programme. Owing to scientific, technological and economic development of the region, this programme will go through continuous modifications and should be aligned with internationally adopted criteria.

Bibliography

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