

# OTOLARYNGOLOGY AND DISEASES OF THE HEAD AND NECK

Total credits:

**7**

Theory credits:

**3**

Practical credits:

**4**

## GENERAL OBJECTIVE

The core subject Otolaryngology and Diseases of the Head and Neck (ORL-MCC) covers the range of theoretical and practical scientific knowledge required for the diagnosis and medical, surgical and rehabilitative treatment of the infectious, traumatic, oncological, congenital and degenerative pathology of the ear, nasal fossae, paranasal sinuses, pharynx, larynx, neck and face, as well as the endoscopic aspects of the oesophagus and cervical trachea.

The main teaching objective of the ORL-MCC course in second-stage studies in the Faculty of Medicine is to provide students with a level of knowledge that will allow them, as future doctors, to act correctly and flexibly in the diagnosis and treatment of common diseases in the field of ORL-MCC: pathology of the ear, nasal fossae and paranasal sinuses, pharynx, larynx and neck.

## SPECIFIC OBJECTIVES

At the end of the training process, students should:

A. *Be able to identify the principal **problems** in otolaryngological pathology and head and neck surgery, specifically in:*

1. Otolgia.
2. Otorrhea.
3. Hypoacusis.
4. Tinnitus.
5. Vertigo.
6. Paralysis of cranial pairs.
7. Nasal obstruction.
8. Rhinorrhea.
9. Epistaxis.
10. Cephalia and facial deformities.
11. Hyposmia and anosmia.
12. Dysphagia.
13. Odynophagia.
14. Dyspnea.
15. Dysphonia.
16. Adenopathies and cervical masses.
17. Facial and cervical traumatology.
18. Changes in communication.

B. *Know the theoretical bases of the **diagnostic methods** in ORL pathology, specifically in:*

1. Complete ORL clinical history.
2. Otoscopy.
3. Rhinoscopy.
4. Pharyngoscopy.
5. Laryngoscopy.

6. Cervical palpation.
7. Observation of nystagmus and assessment of the vestibular tonus.
8. Assessment of other cranial pairs.
9. Conventional radiology.
10. Computerized tomography, Magnetic resonance, Angioradiology.
11. Acumetry, audiometry and impedancometry.
12. Auditory evoked potentials of the brainstem.
13. Electrooculography and electronystagmography.
14. Laryngeal stroboscopy.

C. Know the diagnosis and bases of medical-surgical therapeutics of the principal **diseases** in ORL and diseases of the head and neck:

1. Otitis externa.
2. Otitis media.
3. Complications of otitis.
4. Traumas and tumors of the ear and temporal bone.
5. Transmission hypoacusis. Principles of functional ear surgery.
6. Perception hypoacusis.
7. Vertigo and alterations of balance.
8. Facial paralysis.
9. Nasal trauma and foreign bodies. Epistaxis.
10. Rhinitis.
11. Sinusitis.
12. Nasosinusal allergy.
13. Complications of sinusitis.
14. Rhinosinusal tumors.
15. Sleep apnea syndrome.
16. Dysontogenetic cervical pathology.
17. Pharyngitis. Adenoiditis.
18. Complications of the infectious pathology of the pharynx.
19. Rhinopharyngeal tumors.
20. Tumors of the oropharynx and oral cavity.
21. Traumatic pathology of the larynx. Laryngeal malformations.
22. Laryngitis.
23. Benign tumors and pseudotumors of the larynx. Functional laryngeal pathology.
24. Malignant tumors of the larynx.
25. Hypopharyngeal tumors.
26. Laterocervical adenopathies.
27. Craniofacial and pharyngolaryngeal neuropathology. Cranial-facial-cervical pain.
28. Communication pathology.
29. Foreign bodies in the upper aerodigestive pathways.

D. Have acquired the following **skills**:

- Carry out anamnesis and supervised physical examinations (otoscopy, rhinoscopy, pharyngoscopy).
- Interpretation of basic audiological and vestibular examinations.
- Interpretation of examinations carried out with image-based diagnostic techniques.
- Participate in ward visits, cures and medical orders of hospital patients.

- Attend and observe different types of surgery.
- If necessary, help to carry out simple therapeutic procedures: extraction of wax blockages, foreign bodies, plugging to control epistaxis.
- Assessment of inflammatory, degenerative, infectious, neoplastic and traumatic processes.
- Observe the insertion of tracheotomy tubes, laryngectomy and nasogastric catheters.
- Assist in the diagnosis and treatment of the most frequent emergency procedures in ORL practice.
- Assist in therapeutic decisions taken in the ORL Tumor Committee.
- Acquire sufficient knowledge of professional, neoplastic and infectious diseases in order to carry out exercises in prevention and early diagnosis.

## PROGRAMME

### **1. Pathology of the outer ear. Non-inflammatory pathology: malformations, traumas, foreign bodies, wax and epidermal plugs. Inflammatory pathology: otitis externa (circumscribed, diffuse and malignant), otomycosis, eczema**

Objectives: diagnosis and initial treatment of inflammatory, infectious and traumatic pathology of the outer ear.

### **2. Otitis media: classification. Otitis in infants. Acute otitis media. Otitis media in infectious diseases**

Objectives: diagnosis, treatment and clinical orientation of infectious and inflammatory processes in the middle ear; emphasis on the specific characteristics and complications of otitis media in infants and the significance of otalgia in infants and toddlers.

### **3. Chronic otitis media: serous, mucosal, simple cholesteatoma. Medical and surgical treatment: tympanoplasties**

Objectives: diagnosis, treatment, clinical orientation and therapeutics for otitis media. Possible cures and functional surgical reconstruction.

### **4. Complications of otitis. Intratemporal complications: mastoiditis, petrositis, labyrinthitis, facial paralysis. General concepts of the endocranial complications of otitis**

Objectives: diagnosis and initial treatment of the complications of otitis media. Acquisition of sufficient clinical judgement to be able to correctly instruct patients and begin early treatment as ORL specialists. Understand the degree of endocranial complications and prevention of the complications mentioned above.

### **5. Trauma and tumor pathology of the ear. Fractures of the temporal bone: longitudinal, transversal, mixed. Tumors of the outer and middle ear. Pathology of the pontocerebellar angle. Introduction to surgery on the base of the lateral cranium**

Objectives: obtain sufficient clinical judgement to diagnose temporal trauma and tumors and make clinical diagnoses of suspected ear tumors and their correct clinical orientation.

### **6. Pathology of auditory function I. Transmission hypoacusis: otosclerosis, tympanosclerosis, adhesive otitis, post-otitic sequelae. Principles of functional auditory surgery**

Objectives: correct diagnosis of transmission hypoacusis. Interpretation of acumatic, audiometric and impedancometric tests. Develop the judgement required to give correct clinical and therapeutic orientation, with sufficient knowledge of the potential functional surgery of the middle ear.

### **7. Pathology of auditory function II. Neurosensory hypoacusis: classification and characteristics. Acoustic trauma: acute and chronic. Labyrinthotomy. Sudden deafness. Presbycusis**

Objectives: diagnose neurosensory hypoacusis and be aware of the potential treatment with protein rehabilitation. Acquire appropriate knowledge to intervene in the prevention of sonorous trauma. Acquire sufficient clinical judgement to make early diagnoses of sudden deafness.

### **8. Vestibular pathology I. Physiopathology of the posterior labyrinth. Peripheral vestibular syndromes: Ménière's disease, síndrome vestibulocómico, vestibular neuronitis, benign paroxysmic positional vertigo, labyrinthitis**

Objectives: learn how to interpret examinations and basic vestibular tests and understand the differential diagnosis between peripheral and central vertigo. Know how to initiate appropriate treatment in the acute phase and establish a correct clinical orientation for posterior study by the ORL specialist.

**9. Vestibular pathology II. Central dysfunction and interruption syndromes: cervical, orthostatic, cerebral circulation insufficiency, of the pontocerebellar angle, cerebellar, of the brainstem. Vestibular rehabilitation**

Objectives: make a correct differential diagnosis between central and peripheral vertigos. Acquire sufficient clinical judgement to carry out correct patient orientation according to their vestibular pathology (peripheral or central) and collaborate with the neurologist.

**10. Pathology of the facial nerve. Facial paralysis: topography, classification and types. Bell's paralysis: definition, etiopathogenic theories, diagnosis, prognosis, treatment and evolution. Traumatic facial paralysis. Ramsay-Hunt Syndrome. Melkersson-Rosenthal Syndrome. Facial hemispasm. Tumors of the facial nerve.**

Objectives: make early diagnoses of the different clinical forms of facial paralysis. Acquire sufficient clinical judgement to carry out a correct, early clinical and therapeutic orientation.

**11. Nasal pathology. Trauma, septal and vestibular pathologies. Foreign bodies. Malformations. Synechia. Epistaxis**

Objectives: correct evaluation of nasal trauma of the osseous and cartilaginous parts. Correct diagnosis of nasal respiratory insufficiency, awareness of its causes and how to begin correct initial medical treatment. Correct diagnosis and treatment of nasal vestibular pathology. Know the correct technique for extraction of foreign bodies from the nose. Acquire clinical judgement in order to correctly treat an epistaxis according to the general state of the patient and know the techniques for anterior and posterior packing.

**12. Rhinitis. General concept. Acute and chronic nonspecific rhinitis. Atrophic rhinitis: ozena. Chronic specific rhinitis. Mycotic rhinitis**

Objectives: be able to diagnose and provide initial treatment for rhinitis. Acquire sufficient clinical judgement to know how to make correct referrals to an ORL specialist.

**13. Allergic rhinitis. Nasosinusal polyposis. Widal's Syndrome. Vasomotor rhinitis. Acute and chronic allergic sinusitis.**

Objectives: know the general principles of allergy applied to nasal and sinus mucosa. Gain the sufficient clinical judgement to make clinical diagnoses and understand therapeutic principles of allergic and vasomotor rhinitis, as well as clinical diagnosis of polyposis and Widal's Syndrome. Be aware of the therapeutic, medical and surgical possibilities and possess the appropriate judgement to give correct and early orientation of the patient to an ORL specialist.

**14. Sinusitis. General pathology of sinusitis. Acute sinusitis and chronic sinusitis. Introduction to external and endonasal sinus surgery: endoscopic and microscopic surgery**

Objectives: know the correct diagnosis and initial treatment of acute sinusitis and chronic sinusitis. Acquire a sufficient level of knowledge of the indications and techniques of external and endonasal sinus surgery.

**15. Complications of sinusitis. Orbital complications: palpebral edema. Preseptal and orbital cellulitis, preseptal and orbital abscess, thrombophlebitis of the cavernous sinus. Cranial complications: frontal osteomyelitis. Endocranial complications: meningitis, cerebral abscesses**

Objectives: acquire sufficient clinical judgement in order to make early diagnosis of orbital, cranial and endocranial complications of sinusitis for immediate referral to an ORL specialist. Have a sufficient knowledge of the treatment that should be followed.

**16. Rhinosinusal tumors. Benign tumors: osteoma, papilloma, peridental cyst. Pseudotumors: mucocelle. Malignant tumors: scaly carcinoma, undifferentiated, adenocarcinoma, cylindroma, melanoma. Introduction to surgery on the base of the anterior cranium.**

Objectives: diagnose suspected nasosinusal tumors. Know the differential diagnosis between benign tumors, pseudotumors and malignant tumors. Acquire sufficient clinical judgement to make early referrals to ORL specialists.

**17. Sleep apnea syndrome and ronchopathy. Dysontogenetic cervical pathology**

Objectives: Know how to make early diagnoses of respiratory alterations: sleep apnea and ronchopathy. Be aware of the medical, instrumental and surgical therapeutic possibilities. Gain a sufficient level of knowledge to establish early diagnoses of clinical dysontogenetic cervical pathology and be aware of the therapeutic possibilities.

**18. Pathology of Waldeyer's ring: acute and chronic adenoiditis, pharyngitis and tonsillitis. Adenoid and amygdalar hypertrophy. Pharyngeal manifestations of hemopathies**

Objectives: know how provide correct clinical diagnosis and medical treatment of acute and chronic infections of Waldeyer's ring. Gain sufficient knowledge of the indications of adenoidectomy and tonsillectomy. Know how to make clinical diagnoses of suspected hematic angina.

**19. Complications of the infectious pathology of the pharynx. Phlegmons and pharyngeal abscesses: peritonsillar, parapharyngeal and retropharyngeal. Focal pathology in ORL**

Objectives: know the causes and clinical basis of the development of pharyngeal abscesses in order to make early diagnoses and referrals to ORL specialists. Acquire the appropriate judgement for the suspicion, diagnosis and early treatment of focal pathology in ORL.

**20. Pathology of the saliva glands. Inflammatory and tumor**

Objectives: learn to make differential diagnoses for these pathologies and know how to direct the patient in each case. Indicate the basic examinations required.

**21. Rhinopharyngeal tumors: benign and malignant**

Objectives: learn to make clinical diagnoses of suspected rhinopharyngeal tumors and acquire the necessary clinical judgement in order to know when to make early referrals to ORL specialists, as well as understanding the treatment required.

**22. Tumors of the oropharynx and oral cavity: benign and malignant tumors of the tonsils, tonsillar pillars, retromolar, floor of the mouth and the tongue**

Objectives: learn to make clinical diagnoses of suspected rhinopharyngeal tumors and acquire the necessary clinical judgement in order to know when to make early referrals to ORL specialists, as well as understanding the treatment required.

**23. Malformations, trauma, foreign bodies of the larynx and pharynx. Intubation, coniotomy, tracheotomy: indications, technique and complications**

Objectives: know the clinical diagnosis and initial treatment of malformations, foreign bodies and trauma of the pharynx and larynx. Know how to make clinical diagnoses of the complications of prolonged intubation. Acquire the ability to act correctly in cases of severe obstruction of the external airway and develop flawless knowledge of intubation, coniotomy and tracheotomy techniques.

**24. Laryngitis: acute, chronic, specific. Special characteristics of dyspneic laryngitis in infants**

Objectives: learn to make clinical diagnoses of acute and chronic laryngitis, indicating the correct initial treatment. Know the clinical manifestations of specific laryngitis in order to make early diagnosis in collaboration with the ORL specialist. Take into account and record the particular characteristics of laryngitis in infants.

**25. Benign tumors and pseudotumors of the larynx: polyps, nodules, intracordal cysts, papillomae, laryngoceles. Functional exploration of the voice and stroboscopy. Rehabilitation of the voice and phonosurgery. Precancerous lesions of the larynx**

Objectives: know the clinical diagnosis of suspected nodules, polyps, intracordal cysts, papillomae and preneoplastic lesions of the larynx. Know the indications and bases of functional exploration, voice rehabilitation and phonosurgery techniques.

**26. Malignant tumors of the larynx and hypopharynx I: epidemiology, etiopathogenic factors, propagation pathways, exploration, pathological types, clinical classification, diagnosis and prognostic factors**

Objectives: know how to make a clinical diagnosis of suspected malignant tumors of the larynx and hypopharynx based on clinical semiology and predispositional factors. Acquire sufficient clinical judgement in order to know when to make early referrals to ORL specialists and be aware of the treatment required.

**27. Malignant tumors of the larynx and hypopharynx II: Treatment: surgery, bases and principles of partial and total surgery; radiotherapy and chemotherapy in malignant laryngohypopharyngeal tumors.**

**Basic concepts of phonatory rehabilitation of laryngectomized patients: phonatory prosthesis, erygmo-phony, laryngophones**

Objectives: know the current therapeutic possibilities and methodologies related to malignant tumors of the larynx and hypopharynx. Be able to direct the laryngectomized patient towards correct rehabilitation.

**28. Laterocervical adenopathies. Metastatic adenopathies of unknown primary site. Diagnostic methodology: panendoscopy, fine needle puncture-aspiration biopsy (FNPA), excisional biopsy. Therapeutic methodology: Functional and radical cervical ganglion surgery. Role of chemotherapy and radiotherapy in metastatic cervical adenopathies.**

Objectives: acquire sufficient knowledge and clinical judgement to be able to direct patients suffering from neoplastic cervical adenopathy. Know the current principles for treatment.

**29. Craniofacial and pharyngolaryngeal neuropathology. Cranial-cervical-facial pain. Neuralgia and sty-lalgia. Garcin and Sluder Syndromes. Neurological alterations of the pharynx and larynx: spasms, sensitivity disorders, pure and associated paralysis**

Objectives: know how to make clinical diagnoses of cranial-cervical-facial pain and neuralgia, Garcin and Sluder Syndromes and pharyngolaryngeal neurological alterations. Acquire sufficient clinical judgement for correct and early orientation of the patient.

**30. Communication pathology: deaf-mutism, cochlear prostheses and implants. Pathology of spoken language: dysphonia, dysarthria, dyslalia, dysphemia, apraxia and aphasia**

Objectives: know how to make clinical diagnoses of suspected deaf-mutism and direct rehabilitation. Acquisition of the correct clinical judgement regarding rehabilitation possibilities for patients with hypoacusis: cochlear prostheses and implants. Know the pathology of spoken language and the rehabilitation possibilities for correct and early direction of the patient.

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## TEACHING STRUCTURE

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### Theory classes

Correspond to the theory programme.

### Planned practical teaching

#### Seminars

1. Clinical history and basic physical examination in ORL-CCC.
2. Audiological examinations.
3. Vestibular examinations.
4. Clinical and imaged-based examination in otology.
5. Clinical praxis in otology.
6. Clinical and imaged-based examination in rhinology.
7. Clinical praxis in rhinology.
8. Clinical and imaged-based examination in pharyngo-laryngology.
9. Clinical praxis in pharyngo-laryngology.
10. Emergency pathology in ORL