

# ARS: Master degree, ENT

## 1. Knowledge and understanding.

**A1.** Enlarge the basic medical knowledge and made more thorough primarily by the study in detail of the anatomy, physiology and pathological physiology of the Ear, Nose and Throat.

**A2.** Comprehend the neurophysiological principles of the central encoding, decoding, memory and integration processes in speech, hearing, and swallowing.

**A3.** Know the genetic principles and the influence of the environment in the ORL diseases.

**A4.** Identify the developmental and aging processes as to ORL diseases.

**A5.** Acquire specific knowledge in the epidemiology, etiology, pathogenesis, prophylaxis, clinical physiology, diagnostics, differential diagnostics, therapeutics and rehabilitation of the ORL Diseases that include:

A5a. Ear Diseases.

A5b. Nose Diseases.

A5c. Diseases of the larynx.

A5d. Maxillofacial Trauma

A5e. Diseases of Salivary Glands

**A6.** Acquire specific knowledge in the epidemiology, etiology, pathogenesis, prophylaxis, clinical physiology, diagnostics, differential diagnostics, therapeutics and Ear disorders.

A6a. Congenital Ear disorders

A6b. Inflammatory disorders of the Ear

A6c. Midfacial Trauma

A6d. Neoplastic of the ear

A6E. Allergy of the Ear

**A7.** Acquire specific knowledge in the epidemiology, etiology, pathogenesis, prophylaxis, clinical physiology, diagnostics, differential diagnostics, therapeutics and Larynx disorders.

A7a. Congenital Larynx disorders

A7b. Inflammatory disorders of the Larynx

A7c. Larynx Trauma

A7. Neoplastic of the Larynx

A6E. Allergy of the Larynx

**A8.** Acquire specific knowledge in the epidemiology, etiology, pathogenesis, prophylaxis, clinical physiology, diagnostics, differential diagnostics, therapeutics and maxillofacial trauma.

A8a. Frontal fractures

A8b. Midfacial fractures

A8c. Mandibular fractures

**A9.** Acquire specific knowledge in the epidemiology, etiology, pathogenesis, prophylaxis, clinical physiology, diagnostics, differential diagnostics, therapeutics and rehabilitation of the swallowing disorders (Dysphagias) due to problems in the oral, and/or pharyngeal stages of swallowing (structural lesions, neurological disorders).

**A10.** Acquire selected knowledge from other disciplines (acoustics, electronics, phonetics, linguistics, pedagogics, psychology and behavior sciences) through attending of relevant basic science courses. This will form the starting point for the formation of a Phoniatician and also the basis for interdisciplinary cooperation and to carryout research work.

**A11.** Acquire the basic knowledge for evaluating of children with outpatient health problems, disabilities and milestones delay.

**A12.** Acquire the basic knowledge in evaluating of psychiatric patients in the domain of phoniatics.

**A13.** Acquire the basic knowledge for interpreting a basic and computerized audiological report.

**A14.** Acquire teaching abilities relevant to disorders of voice, speech, language and swallowing in order to participate in planning and implantation of that field.

**A15.** Know the Legal and medicolegal aspects in practise of ORL disorders as well as medical ethics.

**A16.** Acquire basics and advanced knowledge of Endoscopic manipulation of Ear Nose and throat diseases

## **2. Intellectual skills**

**B1.** Outlines the therapeutic measures in the field of diseases of ORL, language and swallowing and applies them surgically, pharmacologically and behaviorally in order to be able to draw and perform the strategy of the therapy in the field efficiently.

**B2.** Collects complete, clear and organized information about the patient's ailments in order to be able to analyze it and formulate a preliminary idea concerning the etiological diagnosis of ailments.

**B3.** Analyses the speech (verbal) message of the patient concerning voice, phonology, semantic, syntax, and morphology in order to be able to describe precisely the type and degree of pathological aspects of communication.

**B4.** Analyses and relates the results of all different items of the battery of investigations in order to reach at an etiological diagnosis and possible differential diagnosis utilizing his/her theoretical background that draws charts for different groups of ailments in the field of otology.

**B5.** Outlines the role of pharmacological therapeutic agents in treatment of diseases of the nose and paranasal sinuses in order to be able to describe them when needed.

**B6.** Recognizes the methods of voice therapy in order to criticize the efficiency and pitfalls of each.

**B7.** Grasps the principles of behavior therapy in order to introduce efficiently these measures in the therapeutic programs given to patients.

**B8.** Grasps the principles of general language stimulation in order to be able to give efficient family guidance programs to help families that have children with delayed language development to participate efficiently in the therapeutic program.

**B9.** Grasps the principles of Endoscopic management of dysphasic patients in order to include it efficiently in the comprehensive rehabilitation program for these patients, including family guidance.

**B10.** Grasps the principles of surgical treatment for the hearing impaired patient in order to include it efficiently in the comprehensive program for rehabilitation of the hearing handicapped.

**B11.** Identifies the role of prosthetic devices and aids in the therapeutic program for diseases of voice, speech, language and swallowing in order to be able to use it efficiently when indicated.

**B12.** Acquaints himself with the methodology of scientific research in the field of voice, speech, language and swallowing disorders in order to carry out efficiently academic and field research work.

**B13.** Assess the developmental milestones of children and classify their different types of disabilities.

**B14.** Recognizes high risk children for disabilities and determine the degree of handicap.

**B15.** Determines the cause of the neurological deficit in the domain of phoniatic disorders and selects the proper investigation and interpretation of radiological findings (CT and MRI of the brain).

**B16.** Interprets the electroencephalogram (EEG), CT, MRI and PTA.

**B17.** Apply the TNM staging system in tumors of head and neck and formulate management plan accordingly.

### **3. Professional/practical skills**

**C1.** Examines patients with disorders of ENT and swallowing clinically and instrumentally and performs related formal tests on those patients in order to reach detailed etiological diagnosis and suggests prognosis.

**C2.** Examines the ear, nose, pharynx and larynx as well as the nervous system efficiently in order to detect organic changes and evaluate its significance and in order to associate between these signs and the symptomatology collected previously.

**C3.** Examines the larynx by means of stroboscope in order to study vocal fold's vibration during phonation and to detect the pathological picture of these vibrations and its significance.

**C4.** Performs the available standardized technique tests in order to draw a diagnostic profile for the various perceptual, affective, social, cognitive aptitudes as well as the performance abilities of the patients.

**C5.** Carries out the various measurements and investigations using the available instrumental diagnostic procedures in order to support the preliminary diagnosis objectively.

**C6.** Practices micro-laryngoscopy in order to be able to perform efficiently the necessary micro laryngeal surgical procedures on the vocal folds and the larynx in general.

**C7.** Practices rehabilitation methods for speakers' and singers' voice.

**C8.** Practices treatment methods for nasality.

**C9.** Practices treatment of the laryngectomized patients.

**C10.** Practices treatment methods in Ear diseases.

**C11.** Practices treatment of Nose diseases.

**C12.** Practices treatments of larynx diseases.

**C13.** Practices treatment and rehabilitation methods in pharyngeal diseases including dysphagias.

**C14.** Practice treatments of salivary gland diseases

**C15.** Practice treatments of maxillofacial fractures

**C16.** Practices habilitation for hard of hearing children, including auditory training and habilitation of cochlear implantee.

#### **4. Communication & Transferable skills**

**D1.** Communicates effectively with patients, families, and the public, as appropriate, across a broad range of socioeconomic and cultural backgrounds.

**D2.** Cooperates with disciplines related to disorders of voice, speech, language and swallowing in order to participate in teamwork necessary for the proper management of those patients.

**D3.** Conveys his/her ideas to specialists in other disciplines in order to be able to function effectively in a group.

**D4.** Identifies the capacities and limitations of the other medical specialties participating with him/her in the clinical teams in order to be able to put effectively an integrated, realistic therapeutic program.

**D5.** Practices the activities of group interaction in order to be able participate efficiently in the activities of the clinical teams.

**D6.** Apply principles of medical ethics in dealing with patient information by keeping patient privacy and confidentiality even with multi-personnel accessibility to patient data.

**D7.** On the basis of the knowledge, competence, and skill he has acquired during his training, a phoniatician must also be prepared to fulfill the following important tasks:

D7a. Medical report on vocational unfitness and disability.

D7b. Medical care for voice professions.

D7c. Collaboration in early detection of laryngeal malignancies.

D7d. Organization and guidance of phoniatic institutes.

D7e. Education of physicians and special needs professions.

D7f. Conditions to be fulfilled with respect to training centers and supervisors.

D7g. Coordinate the rehabilitation programs (physical therapy, occupational therapy, cognitive therapy.) for multi-handicapped children.

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