

CURRICULLUM OF ENT (U.G)

OBJECTIVES:

1. To enable the student to familiarize himself with the common problems related to the subject of ENT.
2. To enable the student to be competent to evaluate the symptoms, analyze the findings, diagnose the malady and suggest and implement the treatment modalities to treat the common ENT conditions.
3. To make the student aware of emergency life saving procedure commonly seen in ENT practice.
4. To make the student aware of the program on prevention of deafness and have knowledge of methods for screening for early detection of hearing loss.
5. To make learning of the subject of ENT through evoking the curiosity and generate a habit of self learning which may be utilised to make the learning habit a dynamic one.
6. To enhance the attitude, communication skills, adapt to changing trends in education, learning method and evolve new diagnostic and therapeutic technique in the subject of ENT.
7. To make the student understand the rational use of pharmaco-therapeutic agents used in treating ENT diseases and have the knowledge of the common side effects and interactions of commonly used drugs.

COURSE CONTENT

1. KNOWLEDGE:

TOPIC	MUST KNOW	DESIRABLE TO KNOW
• History taking in relation to common complaints encountered in ENT	✓	
• Examination of Ear, Nose, Oral cavity, Oropharynx, Larynx, Neck	✓	
• Causes of pain in the Ear	✓	
• Causes of Ear discharge	✓	
• Wax	✓	
• Otomycosis	✓	
• Otitis externa	✓	
• ASOM	✓	
• Otitis Media with Effusion	✓	
• CSOM- Safe	✓	
• CSOM- Unsafe	✓	
• Complication of CSOM	✓	
• Causes of Hearing Loss	✓	
• Diagnosis of Hearing Loss	✓	
• Types of Hearing Loss	✓	
• Tests for Hearing	✓	
• Tests for Malingering		✓
• Sudden SNHL	✓	
• Noise induced Hearing Loss	✓	
• Causes of Facial Nerve Palsy	✓	
• Bells Palsy	✓	
• Traumatic lesions of Facial Nerve		✓
• Electro-diagnostic tests for Facial Nerve		✓
• Causes of Vertigo	✓	
• Difference between Central and Peripheral vertigo		✓
• Otosclerosis	✓	
• Mennier's Disease	✓	
• Acoustic Neuromas		✓
• Tumours of Middle Ear and Mastoid		✓
• Tinnitus	✓	
• Basics of Hearing Aid & Cochlear Implant		✓
• National Programme for Prevention of Deafness		✓
• DNS	✓	
• Nasal Polyps	✓	
• Causes of Nasal Discharge	✓	
• Allergic Rhinitis	✓	
• Vasomotor Rhinitis	✓	
• Acute & Chronic Rhinitis	✓	
• Epistaxis: Causes and Management	✓	
• Nasopharyngeal Angiofibroma	✓	

• Acute & Chronic sinusitis	✓	
• Carcinoma of Maxilla	✓	
• Neoplasm of Sinuses (other than Maxilla)		✓
• Carcinoma of Nasopharynx		✓
• Diseases of the Salivary Gland		✓
• Ludwigs Angina	✓	
• Causes of Dysphagia	✓	
• Oral Submucous Fibrosis	✓	
• Acute & Chronic Tonsillitis	✓	
• Adenoids	✓	
• Acute & Chronic Abscesses in relation to Pharynx	✓	
• Causes of Hoarseness	✓	
• Diagnosis of Voice Disorder		✓
• Acute & Chronic Laryngitis	✓	
• Benign lesion of Vocal Cord	✓	
• Malignancy of the Larynx & Hypopharynx	✓	
• Causes of Stridor	✓	
• Laryngeal Paralyse	✓	
• Foreign bodies in the Air & Food passage	✓	
• Perforation of Oesophagus		✓
• Corrosive burns of Oesophagus		✓
• Motility disorder of Oesophagus		✓
• Emergency Management of Airway	✓	
• HIV manifestations in ENT	✓	
• Common X-rays / CT scan in ENT	✓	
• Instruments used for routine ENT surgery	✓	
• Basic principles of surgeries of ENT	✓	
• Trauma to the Face and Neck		✓

2. SKILLS:

PROCEDURE	PERF. INDEP.	UNDER GUID.	ASSIST.	OBS.
The student should be adapt at the:				
<ul style="list-style-type: none"> • Skill of using head mirror and know how to focus light 	✓			
<ul style="list-style-type: none"> • Skill of using the different instruments in the ENT OPD as diagnostic tools eg. Tongue depressor, nasal speculum, ear probe, laryngeal mirror, posterior rhinoscopy mirror, ear speculum, tuning fork etc. 	✓			
<ul style="list-style-type: none"> • Skill of holding and using the otoscope, to be able to visualize the ear drum and its mobility. The student should be able to distinguish a healthy and unhealthy eardrum, a safe and unsafe ear disease. 	✓			
<ul style="list-style-type: none"> • Skill of doing the various tuning fork tests viz. Rinne's, Weber's and Absolute Bone Conduction Tests. 	✓			
<ul style="list-style-type: none"> • Skill to identify and palpate the anatomical landmarks in ENT. 	✓			
<ul style="list-style-type: none"> • Skill to examine the Ear, Nose, Throat and neck. 	✓			
<ul style="list-style-type: none"> • Skill to clean the Ear 	✓			
<ul style="list-style-type: none"> • Skill of doing ear syringing for wax removal 	✓			
<ul style="list-style-type: none"> • Skill of performing routine OPD procedures used for diagnostic and therapeutic methods 	✓			
<ul style="list-style-type: none"> • Skill to distinguish the types of hearing loss by learning the analysis of the tuning fork tests, & Audiogram- Pure Tone and Impedence. 	✓			
<ul style="list-style-type: none"> • Skill of performance of manoeuvre like Valsalva's etc. 	✓			
<ul style="list-style-type: none"> • Skill of testing the functions of various cranial nerves. 	✓			
<ul style="list-style-type: none"> • Skill to perform common vestibular function like spontaneous Nystagmus, Fistula test, positional nystagmus test, Rhomberg test 	✓			
<ul style="list-style-type: none"> • Skill for doing the tests for nasal patency 	✓			

• Skill to be able to perform manoeuvres to maintain and establish airway in the case of emergency.	✓			
• Skill to suction a Tracheostomy	✓			
• Perform indirect Laryngoscopy and Posterior Rhinoscopy examination.		✓		
• Remove foreign bodies from ear and nose		✓		
• To perform mastoid dressing		✓		
• Perform anterior nasal packing		✓		
• Tracheostomy			✓	
• Septoplasty				✓
• Tonsillectomy and adenoidectomy				✓
• Myringoplasty				✓
• Myringotomy				✓
• Mastoidectomies- various types				✓
• Oesophagoscopy				✓
• Bronchoscopy				✓
• Basics of Endoscopic Sinus Surgery				✓
• Pure Tone Audiometry				✓

3. GENERAL AREAS TO BE DEVELOPED:

- Communication skills
- Analytical and interpretational skills
- Access of information
- Management of sequelae, long term follow issues
- Supportive care
- Self help group leadership
- Future technology and advances update.
- Spoken language in vernacular

These general areas may be address to, in an integrated manner as a part of institutional development thrust areas.

ASSESSMENT METHOD

Knowledge:

- Theory papers
- Essay type question
- Viva-voce

Skills:

- Clinical Case presentation / Methods of Examination
- Practical demonstration of techniques

TEACHING LEARNING METHODS- SUGGESTIONS

Facilitation of teaching learning methods

- Teaching modules may be developed with an aim of involving the students in the learning process.
- It is suggestive to follow a Symptom- Diagnosis-Management protocol algorithm with adequate space for incorporating the advances in the field.
- For teaching purposes, algorithms may be developed. These could be different for different levels i.e. primary, secondary and tertiary care.
- Once this aspect has been addressed, a diagnosis can be reached and this knowledge can be applied in routine clinical practice.
- The formative evaluation should be done by using structured and objective methods while the summative evaluation should be done by a competency based evaluation which should evaluate the subject knowledge, professional competence, skill demonstration, communicational skills and his attitude to new learning skills using the conventional method of evaluation as well as objective structured clinical examination.
- Development of video films to demonstrate the art of history elicitation and examination methods. This will include the history taking as a proffered history and elucidated history.
- The student should be able to take a history in the correct method as demonstrated. This can be facilitated by simulating history taking practised on colleagues.
- The examination method could be demonstrated to the large batches by video films. The use of videoendoscopy, otoendoscopy and stroboscopy along with CCTV projection can be encouraged to facilitate teaching large batches which are posted in the departments like ENT since the need to have proper light and limited visual access to the findings presents a problem. The teaching models may be procured and used to demonstrate the findings.
- A skill lab may be developed in the institution. Laryngoscopy, intubations, method of approaching and removing the common foreign bodies in the ear and the nose, skill of performing tracheostomy, anterior and posterior nasal packing, technique of mastoid dressing should be demonstrated.
- The causes of these symptoms should be discussed with the students. A group of students may then be asked to discuss about the various diseases that can lead to the given problem, their specific etiologies, symptoms, signs and treatment.

Hence the classes can be a combination of didactic lectures taken by the teachers on the approach to a problem. The discussion on the various diseases can either be in the form of a lecture by the faculty or in the form of symposia presentation by the students, which will be moderated by the teachers. The end result should be the ability on the part of the student to identify the organ involved, the probable aetiology and an idea of any impending complication and the knowledge of how to manage the problem.

The stress of the T-L method should be on developing a symptom based approach, in order to inculcate the habit of relevant history taking, thorough and proper examination as well as stimulation of analytical skills in the student, so that he is able to think of the causes of a particular problem in the patient and follow the correct approach toward the diagnosis, treatment and referral. In order to promote this approach, a modification of the problem based approach may be followed. The suggested structure in ENT is as follows:

The curriculum of ENT may be divided into 4 major parts dealing with the 4 subdivisions of the subject, i.e.

1. Ear
2. Nose
3. Throat
4. Head & Neck

Each part could be further subdivided into the various common problem associated with that part. The causes of the same may then be classified:

1. Ear:
 - a. Ear Discharge
 - b. Pain in Ear
 - c. Hearing loss
 - d. Facial Paralysis
 - e. Vertigo
 - f. Tinnitus
2. Nose:
 - a. Nasal obstruction
 - b. Nasal discharge
 - c. Epistaxis
 - d. Mass in the nose
 - e. Headache
3. Throat:
 - a. Sore throat
 - b. Hoarseness
 - c. Dysphagia
 - d. Stridor/ dyspnoea
4. Head & Neck:
 - a. Neck swelling & sinus
 - b. Foreign bodies in the aero-digestive tract
 - c. Neck trauma
 - d. Emergency airway & its management

Each symptom could then be dealt with based on the causes that can be classified, for e.g.

- a. Ear Discharge:
 1. Recent origin
 2. Longstanding
 3. Purulent
 4. Watery
 5. Bloodstained

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