



JINNAH SINDH MEDICAL UNIVERSITY

STUDY GUIDE

PROGRAM	MBBS
MODULE TITLE	Head and Neck & Special Senses-II (ENT)
ACADEMIC YEAR	Fourth year-2024
INTRODUCTION	The Head & Neck and Special Senses-II module is related to diseases of the Ear, Nose and Throat (ENT). ENT diseases are serious public health problems because of their universal distribution, and the morbidities associated thereof, which they cause due to inherent physiological function that take place in head and neck region. This study guide is to be used for 4th year students of Jinnah Sindh Medical University.
RATIONALE	This course, along with the ENT rotations, aims to produce graduate capable of dealing with common conditions related to Ear, Nose and Throat; in tertiary and primary health care settings. The long-term goal is to contribute to the national provision of health care providers who can take part in the reduction of impairment among the population.
OUTCOMES	By the end of the Head and Neck & Special Senses-II module and ENT rotation, students must be able to justify the diagnoses and management plans of common, uncomplicated ENT-related conditions in emergency and non-emergency situations.
DEPARTMENTS INVOLVED	<ol style="list-style-type: none"> 1. Community Medicine 2. ENT 3. Pathology
MODULE	By the end of the module, the students should be able to:

OBJECTIVES	
<p><u>LECTURES</u></p> <p>COMMUNITY MEDICINE</p>	<p>1. Noise Pollution</p> <ul style="list-style-type: none"> • Describe Noise & Vibration • Identify Noise sources & measurements • Explain adverse health effects of noise • Discuss Noise Management <p>2. Cancers related to Head and Neck</p> <ul style="list-style-type: none"> • Describe various cancers of Head & neck • Identify risk factors of head & neck cancers • Explain the control & prevention of head & neck cancers
<p>ENT</p>	<p>1. Diseases of External Ear (wax/ foreign body)</p> <ul style="list-style-type: none"> • Describe the etiology, clinical presentation, investigations, treatment and complications of impacted wax, frunculosis and foreign body • Diagnose pre-auricular cyst/ sinus • Discuss the etiology, clinical presentation, investigations, treatment and complications for: Myringitis bullosa and Perichondritis <p>2. Trauma to external ear</p> <ul style="list-style-type: none"> • Describe etiology, clinical presentation, investigations, treatment and complications of trauma to pinna and traumatic rupture of tympanic membrane <p>3. Acute Otitis externa</p> <ul style="list-style-type: none"> • Discuss the etiology, clinical presentation, investigations, treatment and complications for- Acute otitis externa • Discuss the etiology, clinical presentation, investigations, treatment and complications for Fungal infections of ear <p>4. Malignant Otitis Externa I</p>

- Discuss the etiology, clinical presentation, investigations, treatment and complications for Malignant otitis externa

5. Malignant Otitis Externa II

- Discuss the etiology, clinical presentation, investigations, treatment and complications for Malignant otitis externa

6. Benign tumors of external ear

- Discuss the etiology, clinical presentation, investigations, treatment and complications for Benign tumors of external ear

7. Malignant tumors of external ear

- Discuss the etiology, clinical presentation, investigations, treatment and complications for Malignant tumors of external ear

8. Acute otitis Media-I

- Discuss the etiology, clinical presentation, investigations, treatment and complications of Acute otitis Media-I
- Discuss the etiology, pathophysiology, clinical presentation, examination findings, investigations and treatment plan for: Acute necrotizing otitis media

9. Acute otitis Media-II

- Discuss the etiology, clinical presentation, investigations, treatment and complications of Acute otitis Media-II
- Discuss the etiology, pathophysiology, clinical presentation, examination findings, investigations and treatment plan for: Acute necrotizing otitis media

10. Chronic suppurative otitis media- I

- Discuss the etiology, clinical presentation, investigations, treatment and complications of Chronic suppurative otitis media- I

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- Describe the diagnosis and management of the complications of otitis media
- Discuss the etiology, pathophysiology, clinical presentations, examination findings, investigations and treatment plans for Serous otitis media.
- Describe the diagnosis and management of the complications of otitis media and mastoiditis

11. Chronic suppurative otitis media- II

- Discuss the etiology, clinical presentation, investigations, treatment and complications of Chronic suppurative otitis media- II
- Describe the diagnosis and management of the complications of otitis media
- Discuss the etiology, pathophysiology, clinical presentations, examination findings, investigations and treatment plans for Serous otitis media.
- Describe the diagnosis and management of the complications of otitis media and mastoiditis

12. Deafness & Audiogram-I

- Define deafness
- List causes of deafness
- Interpret investigation findings related to deafness (Audiogram, tympanogram) - I

13. Deafness & Audiogram-II

- Define deafness
- List causes of deafness
- Interpret investigation findings related to deafness (Audiogram, tympanogram)- II

14. Vertigo & Tinnitus

- Discuss the clinical presentation and treatment options for vestibular neuritis, benign paroxysmal positional vertigo, Meniere's Disease, and migraine-associated vertigo.

15. Epistaxis

- Discuss the etiology, clinical presentation, investigations, treatment and complications of Epistaxis

16. Deviated nasal septum

- Discuss the etiology, clinical presentation, investigations, treatment and complications of Deviated nasal septum

17. Nasal Polyps

- Define Polyps
- Diagnose Ethmoidal and Antrochoanal Polyps based on history, clinical findings and investigation findings
- Discuss management plans for Ethmoidal and Antrochoanal Polyps
- Diagnose Bleeding Polyps based on data provided
- Discuss management plan for Bleeding Polyps

18. Nasal Septal diseases

- Classify Nasal Septal diseases
- Discuss the etiology, clinical presentation, investigations, treatment and differential diagnose of Nasal Septal diseases
- Describe etiology and pathophysiology for syphilis and leprosy.
- Diagnose syphilis and leprosy based on symptoms and signs and, investigation findings
- Develop treatment and follow plans for the above mentioned conditions

19. Acute and chronic sinusitis

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- Discuss the etiology, pathophysiology, clinical presentation, examination findings, investigations, differential diagnosis and treatment plans for: Acute Sinusitis and Chronic Sinusitis.
- Based on data provided, diagnose complications of the above mentioned conditions
- Suggest treatment plan for these conditions

20. Rhinoliths

- Diagnose Rhinoliths based on examination & investigation findings
- Discuss management plan for Rhinoliths

21. Fungal sinusitis

- Diagnose Fungal sinusitis based on data provided
- Discuss management plan for Fungal sinusitis

22. Diseases of Salivary glands

- Diagnose diseases of salivary gland (benign neoplastic, non-neoplastic and parotitis), thyroid gland and lymph nodes based on clinical presentations and investigation findings
- Justify selection of treatment options for the salivary gland conditions

23. Oral cavity ulcers

- Justify diagnosis, investigations, differential diagnosis and treatment plans for oral cavity ulcers (Aphthous ulcers, Thrush & Leukoplakia)
- Justify diagnosis, investigations, differential diagnosis and treatment plans for oral cavity ulcers (Traumatic, Vincents Angina, Agranulocytic Tuberculous Behcet's Syndrome and Ulcerative lesions of Oral Cavity)

24. Neoplastic conditions of Oral cavity

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- Classify Neoplastic conditions of Oral cavity
- Justify diagnosis, investigations, differential diagnosis and treatment plans for Neoplastic conditions of Oral cavity
- Diagnosis, investigations, differential diagnosis and treatment plans for Oral Malignant Ulcers.

25. Neoplasms of salivary glands

- Classify Neoplasms of salivary glands
- Justify diagnosis, investigations, differential diagnosis and treatment plans for Neoplasms of salivary glands

26. Tonsils

- Justify diagnosis, investigations, differential diagnosis and treatment plans for Tonsillitis, Peri-tonsillitis and abscess.

27. Adenoids

- Justify diagnosis, investigations, differential diagnosis and treatment plans for Adenosis

28. Acute and chronic inflammations of larynx

- Diagnose laryngitis based on symptoms and signs, and investigation findings
- Develop treatment and follow up plans for the above mentioned conditions
- Describe the etiology and pathophysiology of supraglottitis and laryngitis
- Justify diagnosis, investigations, differential diagnosis and treatment plans for supraglottitis and laryngitis

29. Vocal Nodules and Paralysis

- Describe the etiology, pathophysiology, investigations and principles of treatment for Vocal Nodules and Vocal cord paralysis

30. Diphtheria

- Describe the etiology and pathophysiology of Diphtheria
- Diagnose Diphtheria based on symptoms and signs and, investigation findings
- Develop treatment and follow plans for the above mentioned condition

31. Dysphagia

- Describe etiology, pathophysiology, differential diagnosis and investigations for dysphagia (oral, pharyngeal and esophageal)
- Describe indications, contraindications and complication of Esophagostomy
- Justify diagnosis, investigations, and differential diagnosis for common conditions of the hypo-pharynx (including Plummer-Vinson or Paterson-Kelly syndrome, pharyngeal pouch (zenker diverticulum)

32. Neck masses and fistulas

- Classify Neck masses and fistulas
- Justify diagnosis, investigations, differential diagnosis and treatment plans for Neck masses and fistulas
- Diagnose Hypoglossal cyst/ sinus, Branchial Cyst and Branchial Fistula
- Justify diagnosis, investigations, differential diagnosis and treatment plans for Ludwig's angina
- Justify diagnosis, investigations, differential diagnosis and treatment plans for Pharyngeal and Retropharyngeal abscesses.

33. Sleep apnea syndrome

	<ul style="list-style-type: none"> • Justify diagnosis, investigations, differential diagnosis and treatment plans for Sleep apnea syndrome <p>34. Tracheostomy</p> <ul style="list-style-type: none"> • Describe the indications, contraindications, complications, operation steps and post-operative care for tracheostomy <p>35. Benign & Malignant laryngeal tumors</p> <ul style="list-style-type: none"> • Classify Laryngeal tumors • Diagnose Papilloma Larynx, Laryngeal Polyps based on symptoms and signs, and investigation findings • Discuss the etiology, symptoms and signs and, investigation findings, and differential diagnosis of Laryngeal Carcinoma • justify diagnosis, investigations, and differential diagnosis for pyriform fossa carcinoma, and post cricoid carcinoma <p>36. Radiology of ENT</p> <p>Identify and describe the radiological findings on different x-ray related to the ear, nose and throat.</p>
<p>PATHOLOGY</p>	<p>1. Pathogens causing infections of the ear.</p> <ul style="list-style-type: none"> • List the pathogens causing infections of the ear • Discuss the pathophysiology and clinical features of the infections. <p>2. Pathogens causing infections of the nose.</p> <ul style="list-style-type: none"> • List the pathogens causing infections of the nose • Discuss the pathophysiology and clinical features of the infections. <p>3. Pathogens causing infections of the throat.</p> <ul style="list-style-type: none"> • List the pathogens causing infections of the throat • Discuss the pathophysiology and clinical features of the infections.

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ENT INSTRUMENT IDENTIFICATION	<p>By the end of the rotation in ENT, student should be able to identify the instruments listed below and discuss their indications and contraindications (where applicable):</p> <ol style="list-style-type: none">1. Adenoid curette2. Ashe's Forceps3. Ballenger Swivel Knife4. Boyle Davis mouth gag5. Bronchoscopes (Rigid/flexible)6. Ear speculum7. Endoscopes8. Endotracheal Tube, Cuffed/Non-cuffed9. Freer elevator10. Head lights11. Indirect laryngoscope mirror12. Jobsons Horne probe13. Knot pusher1. Laryngoscope Macintosh14. Laryngoscopes15. Luc's forceps16. McGill Forceps17. Nasal Snare18. Nasal Speculum2. Nasopharyngoscope3. Oesophagosscopes
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	<ol style="list-style-type: none">19. Otoscope20. Posterior Rhinos copy mirror21. Sucker Pharyngeal22. Suction nozzle23. Suction Tube24. Tilly's Nasal Dressing Forceps25. Tongue depressor26. Tonsil holding forceps27. Tonsil snare28. Tonsillar artery forceps29. Tracheal Dilator30. Tracheostomy Tubes31. Trocar and Cannula32. Tuning forks33. Walsham's Forceps
<p>CLINICAL SKILLS</p>	<p>By the end of the ENT rotation, students should be able to:</p> <ul style="list-style-type: none">• Examine Cranial nerves relevant to ENT (Olfactory nerve, Trigeminal nerve, Facial nerve, Vestibulocochlear nerve, Glossopharyngeal nerve, Hypoglossal nerve)• Examine ear for foreign body and of posterior nasal space by posterior Rhinoscopy• Examine the oropharynx and the neck of real patients under direct supervision• Palpate the neck to assess the lymph-nodes and salivary glands in the neck

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	<ul style="list-style-type: none">• Perform a complete regional examination on real patients correctly• Perform Otoscopy as per protocol on real patients, under direct supervision• Take history appropriately from a patient with an ENT related condition• Use nasal speculum appropriately for examination• Use otoscope to aid in examination of the external auditory canal and the tympanic membrane• Use the finger palpation method for examination of oral cavity and tongue• Use the tongue blade to aid inspection of the buccal cavity• Use tuning forks for hearing tests and interpretation of the findings• Write clear and focused histories legibly in order to make correct provisional diagnoses
PROFESSIONAL BEHAVIOR	<ul style="list-style-type: none">• Demonstrate punctuality and regularity in all teaching sessions• Deal with colleagues (peers, seniors and juniors), other members of the health care team and patients and their attendants with respect• Demonstrate compassion and ethical behavior while dealing with patients (i.e. during history taking, examinations and discussions)• Demonstrate empathy towards the health care team members and patients (along with their attendants) through verbal and non-verbal communication• Demonstrate clarity in verbal and written communications at

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	all times
INTERNAL ASSESSMENT	<ul style="list-style-type: none">• Internal assessment will be according to JSMU policy. The details of internal assessment will be determined by the respective institutions.• Internal assessment carries 20% weightage in the final, end- of - year examination
ANNUAL EXAMINATION	<ul style="list-style-type: none">• MCQs and OSCE/OSPE (observed + unobserved)
COURSE EVALUATION	<ul style="list-style-type: none">• Course will be evaluated through a feedback form which will be posted on the JSMU website