



JINNAH SINDH MEDICAL UNIVERSITY

STUDY GUIDE	
PROGRAM	MBBS
MODULE TITLE	HEAD AND NECK & SPECIAL SENSES-II (ENT)
ACADEMIC YEAR	Fourth year-2025
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 OBJECTIVES	By the end of the module, the students should be able to:

<p><u>LECTURES</u> 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 align="center">EAR</p> <p>1. Congenital Disorders of External Ear</p> <ul style="list-style-type: none"> • Define Anotia, Microtia & Atresia of external Auditory canal • Discuss the clinical presentation, investigations and treatment for pre-auricular cyst/ sinus <p>2. 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 • Discuss the etiology, clinical presentation, investigations, treatment and complications for: pre-auricular cyst/ sinus, Myringitis bullosa and Perichondritis <p>3. 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 • Discuss the etiology, clinical presentation and management for Frostbite and Haematoma Auris.

4. Acute Otitis externa

- Discuss the etiology, clinical presentation, investigations, treatment and complications for- Acute & Diffuse Otitis Externa
- Discuss the etiology, clinical presentation, investigations, treatment and complications for Otomycosis & Herpes Zoster Oticus

5. Malignant Otitis Externa (I & 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 & II)

- Discuss the etiology, clinical presentation, investigations, treatment and complications of Acute Otitis Media, Chronic Otitis Media & Glue ear/ Otitis Media with effusion.
- Discuss the etiology, pathophysiology, clinical presentation, examination findings, investigations and treatment plan for: Acute Necrotizing Otitis Media

9. Chronic Suppurative Otitis Media (CSOM)- I & II

- Discuss the etiology, clinical presentation, investigations, treatment and complications of CSOM
- Describe the diagnosis and management of the complications of otitis media

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- 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

10. Otosclerosis

- Discuss the etiology, pathophysiology, clinical presentations, examination findings, investigations and treatment plans for Otosclerosis

11. Deafness & Investigations (I & II)

- List the investigations and their indications relevant to diagnose deafness
- Interpret PTA and Tympanometry reports
- Identify BERA report

12. Congenital Diseases of Inner Ear

- Explain the etiology and management of Pre-lingual sensori-neural hearing loss

13. Hearing Loss

- Define deafness
- List causes of deafness
- Describe the etiology, investigations and principles of treatment for sensori-neural hearing loss (i.e. Presbycusis, Noise-induced hearing loss and Ototoxicity)
- Describe the etiology, investigations and principles of treatment for conductive hearing loss

14. Acquired Vestibular Disorders

- Describe the etiology, investigations and principles of treatment for Benign Paroxysmal Positional Vertigo, Vestibular Neuritis, Meniere's disease & Acoustic neuroma

FACE

15. Facial Nerve Paralysis

- Discuss the surgical anatomy of the facial nerve
- List the causes of facial nerve paralysis
- Diagnose Bells Palsy and Ramsay Hunt syndrome based on given patient information
- Describe the principles of Management of facial paralysis in Acute and Chronic Otitis Media and traumatic facial nerve paralysis

16. Diseases of Salivary glands

- Diagnose diseases of salivary gland (inflammatory, benign and malignant) based on clinical presentations and investigation findings
- Justify selection of treatment options for these salivary gland conditions

17. Oral cavity ulcers

- Justify diagnosis, investigations, differential diagnosis and treatment plans for oral cavity ulcers (Aphthus 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)

18. Neoplastic conditions of Oral cavity

- Classify Neoplastic conditions of Oral cavity

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- 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.

NOSE & PAPANASAL SINUSES

19. Epistaxis

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

20. Furunculosis

- Diagnose Furunculosis based on history, clinical findings and investigation findings
- Discuss treatment plans for Furunculosis

21. Deviated Nasal Septum

- Discuss the etiology, clinical presentation, investigations, treatment and complications of Deviated Nasal Septum

22. 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

23. Nasal Septal diseases

- Classify Nasal Septal diseases
- Discuss the etiology, clinical presentation, investigations,

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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

24. Acute and chronic sinusitis

- 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

25. Nasal Trauma and Rhinoliths

- Discuss types of foreign bodies in nose and principles of their management
- Discuss the diagnosis and management of Rhinoliths
- Diagnose nasal fractures based on history and clinical presentations
- Discuss the basics of management plan for nasal fractures

26. Granulomatous Disorders

- Discuss the differential diagnosis of Granulomatous disorders
- Explain the diagnostic features and principles of management of:
 - i. Invasive Aspergillosis
 - ii. Mucormycosis
 - iii. Wegener's Granulomatosis

27. Sino-Nasal Tumors

Explain the diagnostic features and principles of management of:

- i. Inverted Papilloma
- ii. Malignant tumors of nose and Paranasal sinuses

28. Fungal sinusitis

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

PHARYNX

29. Malignant Conditions of Nasopharynx

- Describe the diagnosis and treatment plan for Juvenile Nasopharyngeal Angiofibroma and Nasopharyngeal carcinoma.

30. Inflammatory Conditions of Oropharynx

- Justify diagnosis, investigations, differential diagnosis and treatment plans for Acute and Chronic Pharyngitis.

31. Tonsils

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

32. Adenoids

- Justify diagnosis, investigations, differential diagnosis, treatment plans and complications for Adenoid Hyperplasia

33. Malignant Conditions of Oropharynx

- Explain the diagnostic features, investigations and outline of treatment plan for Squamous cell carcinoma

34. Conditions of Nasopharynx

Describe the diagnosis and treatment plan for Plummer-Vinson syndrome & Hypopharyngeal Carcinoma

LARYNX

35. Acute and chronic inflammations of larynx

- Describe the etiology, pathophysiology, clinical presentation, investigation findings and treatment plans for Supraglottitis and laryngitis, vocal polyp and Acute Laryngo-Tracheobronchitis

36. Vocal Nodules and Paralysis

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

37. Benign & Malignant laryngeal tumors

- Classify Laryngeal tumors
- Diagnose Papilloma Larynx, Laryngeal Polyps based on symptoms and signs, and investigation findings
- Discuss the etiology, clinical features, investigation findings and differential diagnosis of Laryngeal Carcinoma
- justify diagnosis, investigations, and differential diagnosis for Pyriform Fossa Carcinoma, and Post-Cricoid Carcinoma

38. 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

39. Congenital Conditions of Larynx

- Describe the diagnosis and principles of treatment for Laryngomalacia and Juvenile recurrent laryngeal Papillomatosis

OESOPHAGUS

40. Aero-Digestive tract

- Discuss foreign bodies in the aero-digestive tract and the principles of their management

41. Dysphagia

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

NECK

42. Neck masses and fistulas

- Classify Neck masses
- Justify diagnosis, differential diagnosis, investigations and treatment plans for Neck masses
- Justify diagnosis, investigations, differential diagnosis and treatment plans for Ludwig's angina, ParaPharyngeal and Acute and Chronic Retropharyngeal abscesses

43. Neck fistulas

- Classify fistulas
- Justify diagnosis, differential diagnosis, investigations and treatment plans for Neck fistulas
- Diagnose Hypoglossal cyst/ sinus, Branchial Cyst and Branchial Fistula

44. Tracheostomy

- Describe the indications, contraindications, complications,

operation steps and post-operative care for tracheostomy

45. Diseases of Thyroid and Parathyroid

- Classify benign and malignant conditions of Thyroid and Para-Thyroid
- Explain the diagnostic features, Pathophysiology, investigation findings and treatment plans for benign conditions of Thyroid and ParaThyroid glands
- Explain the diagnostic features, Pathophysiology, investigation findings and treatment plans for malignant conditions of Thyroid and ParaThyroid glands

Sleep Apnea Syndrome

- Justify diagnosis, investigations, differential diagnosis and treatment plans for Sleep Apnea and Sleep apnea syndrome

PATHOLOGY

1. Pathogens causing infections of the ear.

- List the pathogens causing infections of the ear
- Discuss the pathophysiology and clinical features of the infections.

2. Pathogens causing infections of the nose.

- List the pathogens causing infections of the nose
- Discuss the pathophysiology and clinical features of the infections.

3. Pathogens causing infections of the throat.

- List the pathogens causing infections of the throat
- Discuss the pathophysiology and clinical features of the infections.

ENT INSTRUMENT IDENTIFICATION

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):

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1. Adenoid curette
2. Asch's and Walsham's Forceps
3. Ashe's Forceps
4. Ballenger Swivel Knife
5. Boyle Davis mouth gag
6. Bronchoscopes (Rigid/flexible)
7. Ear speculum
8. Ear Syringing instruments
9. Endotracheal Tube, Cuffed/Non-cuffed
10. Fibro-optic Direct Laryngoscope
11. Freer elevator
12. Head lights
13. Indirect laryngoscopic mirror
14. Jobson's Horne probe
1. Laryngoscope Macintosh
15. Luc's forceps
16. Metallic and Nonmetallic Tracheostomy Tubes
17. Metallic Tongue depressor
18. Nasal Snare
19. Nasal Speculum: Thudicum and Killian
2. Nasopharyngoscope
20. Negus Knot Tier or Knot pusher
3. Oesophagoscopes
21. Otoscope

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	<p>22. Pharyngeal Sucker</p> <p>23. Posterior Rhinos copy mirror</p> <p>24. Suction nozzle</p> <p>25. Suction Tube</p> <p>26. Tilly's Nasal Dressing Forceps</p> <p>27. Tonsil holding forceps</p> <p>28. Tonsil snare</p> <p>29. Tonsillar artery forceps</p> <p>30. Tonsillar Dissector</p> <p>31. Tracheal Dilator</p> <p>32. Trocar and Cannula</p> <p>33. Tuning forks</p>
<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• Perform a complete regional examination on real patients correctly• Perform Otoscopy as per protocol on real patients, under direct

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	<p>supervision</p> <ul style="list-style-type: none">• 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
<p>PROFESSIONAL BEHAVIOR</p>	<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 all times

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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