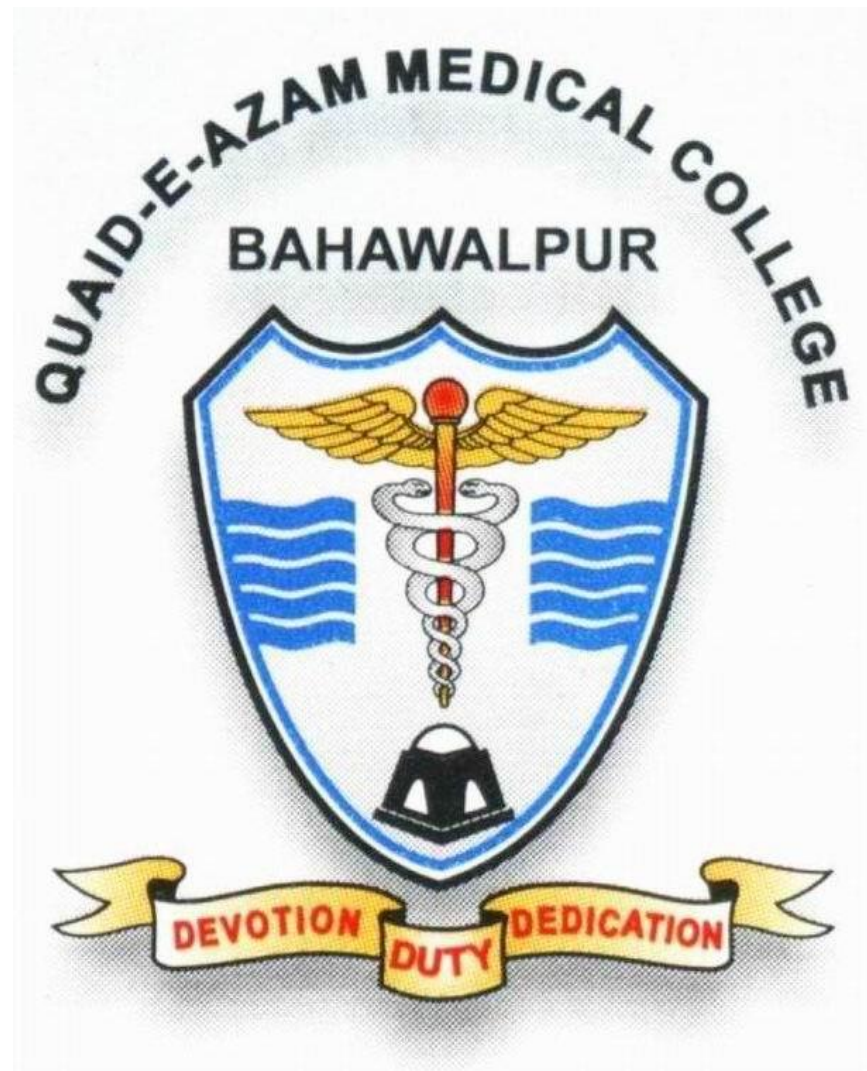


ENT STUDY GUIDE



Quaid-e-Azam Medical college, Bahawalpur

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Vision and Mission

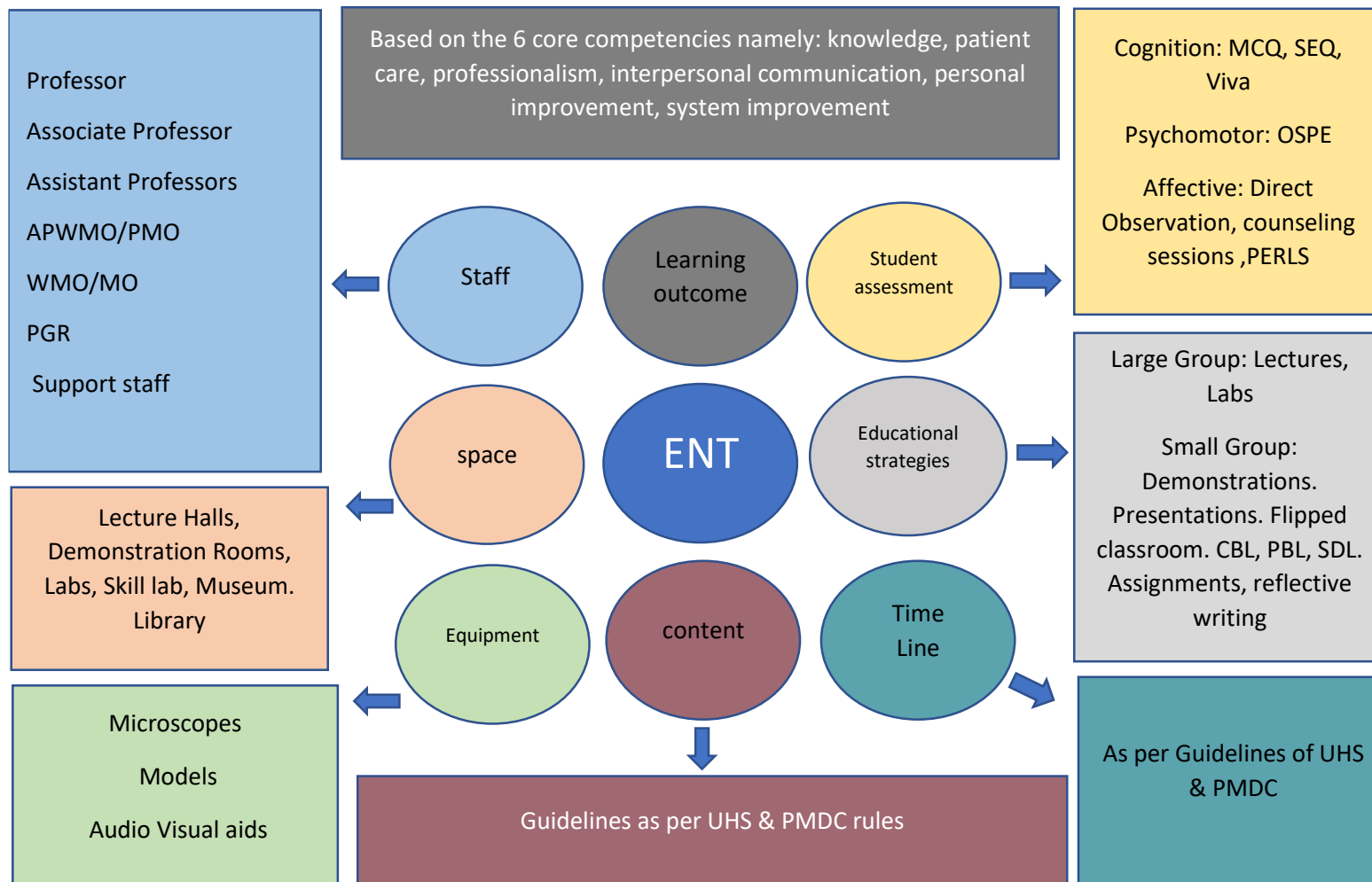
Vision:

Our vision is to be a global leader in transformative medical education and healthcare delivery.

Mission:

To advance the art and science of medicine through innovative medical education, research, and compassionate healthcare delivery, within available resources, in an environment that advocates critical thinking, creativity, integrity, and professionalism.

Curriculum map of Department of ENT



Learning Objectives

By the end of 4th year, all MBBS students will be able to:

1. Describe the anatomy and physiology of Ear, Nose, Throat & Neck.
2. Obtain appropriate history, examine Ear, Nose, oral cavity, pharynx, larynx and Neck including mirror examinations and functional examinations of these areas.
3. Describe benign and malignant tumors involving the ENT and Head & Neck.
4. Assist in diagnostic procedures and take swab for culture and sensitivity from ear, Nose & throat under supervision.
5. Prescribe hematological investigations, x-ray paranasal sinuses, CT/MRI scan of paranasal sinuses, temporal bone and Head & Neck & interpret it.
6. Perform clinical tests of hearing, tuning fork tests and balance independently
7. Interpret pure tone audiogram & tympanogram.
8. Describe the ABC protocol for resuscitation of traumatic patients.
9. Discuss differential diagnosis of membrane on the tonsils and describe diphtheria.
10. Describe sialadenitis, sialolithiasis and enumerate the benign and malignant salivary tumors.

11. Discuss a treatment plan for the patients with various common diseases of the ENT and Head and Neck region.
12. Describe dysphagia and its causes, Plummer-Vinson Syndrome and malignant tumors of hypopharynx that could lead to dysphagia and hoarseness along with their management.
13. Describe the management of corrosive ingestion and foreign body in the esophagus.
14. Describe various congenital and acquired disorders of the ENT and Head & Neck region
15. Describe the significance of hoarseness and stridor & enumerate their causes and clinical features of respiratory obstruction.
16. Differentiate clinically between various types of stridor and possible site of obstruction.
17. Describe tracheostomy and indications for this procedure.
18. Describe squamous cell carcinoma of the larynx and the impact of stage of disease on management and survival of patient.
19. Explain the mutual association of hearing and balance disorders & the various conditions that give rise to these disorders.
20. Describe the clinical features and course of otosclerosis, Meniere's disease, vestibular neuronitis & BPPV.
21. Diagnose suppurative otitis media & describe its intracranial and extra cranial complications.
22. Describe the 'rehabilitation of deaf and mute child' and the impact of hearing impairment in children.
23. Describe rhinosinusitis, its various types of rhino-sinusitis and its complications.
24. Describe the diseases of the nasal septum & define DNS and enumerate its various types.

25. Describe the pathophysiology, types, and management of Sino nasal polyposis.
26. Enumerate various conditions resulting in nasal obstruction & discharge.
27. Describe various types of allergic & non-allergic rhino-sinusitis.
28. Enumerate fungal and other granulomatous diseases of the nose & paranasal sinuses and describe their management.
29. Categorize various conditions benign & malignant neoplasms of the nose & paranasal sinuses.
30. Classify various types of neck swellings and describe clinical differentiating features of benign & malignant neck masses.

Sore Throat

Table 1: Sore Throat

TOPIC	Teaching stratgy	LEARNING OBJECTIVES
Anatomy & physiology of oral cavity, Pharynx & salivary glands	lecture	
Acute Pharyngitis	lecture	6. Discuss classification, types, aetiology, clinical features, diagnosis and treatment of acute pharyngitis
Chronic Pharyngitis	lecture	7. Discuss classification, types, aetiology, clinical features, diagnosis and treatment of chronic pharyngitis

Acute Tonsillitis/ Peritonsillar abscess (Quinsy)	SGD	8. Discuss classification, types, aetiology, clinical features, diagnosis and treatment of acute tonsillitis 9. Discuss the aetiology, clinical features and treatment of quinsy
Chronic Tonsillitis	SGD	10. Discuss classification, types, aetiology, clinical features, diagnosis and treatment of chronic tonsillitis
Oral ulceration	Lecture	11. Enumerate differential diagnosis of oral ulcers and discuss management of Aphthous ulcers
Trauma to the palate and Oropharynx	lecture	12. Discuss the principles of soft tissue & bone repair in palatal and pharyngeal trauma.
Carcinoma of oral cavity	lecture	
Approach to a patient with sore throat	SGD	14. Enumerate differentials of sore throat and discuss important differentiating points
Anatomy & physiology of salivary glands	Lecture	15. Describe the anatomy & physiology of parotid, submandibular, sublingual & minor salivary glands
Non neoplastic disorders of the salivary glands	lecture	16. Describe non neoplastic disorders of salivary glands, its management and treatment

Sialolithiasis and sialectasis	1lectur	17. Describe stone formation and stasis of secretions in the salary glands and its management
Neoplasm of salivary glands	1lectur	18. Describe the features, course and management of benign and malignant, submandibular, sublingual and minor salivary glands
Complications of salivary gland surgeries	1lectur	19. Describe in detail different surgical procedures of salivary glands and its complications

Difficulty in Swallowing

TOPIC	Teaching strategy	LEARNING OBJECTIVES
Dysphagia & Plummer Vinson Syndrome	Case based discussion	20. Discuss Dysphagia & the anatomy and physiology of Esophagus and the appropriate medical and surgical treatment of dysphagia. 21. Discuss PVS & the predisposing factors for causation & management
Pharyngeal and esophageal Pouches	lecture	22. Discuss Pharyngeal pouch & the predisposing factors, clinical features, and treatment.
Oropharyngeal Tumors	lecture	
Hypo pharyngeal Tumors	pbl	24. Enumerate oropharyngeal tumors. Discuss the aetiology and treatment of hypo pharyngeal carcinoma.

Tumors of Esophagus.

Case base
discussion

25. Classify esophageal tumors & describe the
etiology, clinical features, and treatment options.

Vocal nodules & vocal polyps	Small group discussion	36. Discuss differentiating points between vocal nodules & polyps, its aetiology, clinical features, diagnosis, and
Vocal cord paralysis	lecture	37. Discuss paralytic causes of hoarseness, its types, clinical features, diagnosis, and treatment.
Stridor	Bed side teaching	38. Enumerate causes of stridor. Explain types of stridor. Discuss management of congenital stridor
Apyrexial causes of stridor	Small group discussion	39. Discuss the aetiology and management of acquired apyrexial causes of stridor
Pyrexial causes		40. Discuss the aetiology and management of pyrexial causes of stridor
Laryngeal trauma	lecture	41. Discuss the management of laryngeal trauma
Acute Respiratory obstruction	lecture	42. Discuss signs of respiratory obstruction. Enumerate alternate airways & discuss tracheostomy.
Laryngotracheal Foreign body	lecture	43. Discuss the aetiology, types & treatment of Laryngotracheal Foreign bodies.
Malignant Tumours of the Larynx / Carcinoma of Larynx	PBL	44. Discuss incidence, epidemiology, risk factors, Pathology & classification of carcinoma larynx. 45. Discuss UICC classification of laryngeal sites & subsites. Discuss management of carcinoma of all the subsites
Approach to a patient with hoarseness	pbl	46. Discuss the differentials diagnosis of hoarseness and explain management approach to a patient presenting with

Deafness, Ear Discharge & Dizziness

TOPIC	HOURS	LEARNING OBJECTIVES
Applied Anatomy and Physiology of Ear	2 hours	47. Describe the applied anatomy of the external, middle & internal ear. 48. Discuss the functions of the ear. 49. Discuss basic principles & interpretation of various tuning fork tests. 50. Discuss the interpretation of PTA & impedance audiometry
Trauma to External Ear and the Temporal Bone	1 hour	Ear and the investigations &
Otitis Externa	1 hour	53. Discuss Otitis Externa, its clinical features, differential diagnosis and relevant clinical & radiological investigations and treatment.
Acute Suppurative otitis media	1 hour	54. Discuss acute suppurative otitis media.
TOPIC		LEARNING OBJECTIVES
		55. Describe its clinical features, differential diagnosis and relevant clinical & radiological investigations and treatment

TOPIC		LEARNING OBJECTIVES
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Approach to patient with a Conductive hearing loss	Bed side teaching	61. Discuss the differential diagnosis of hearing loss & the medical and surgical management of CHL. 62. Discuss otosclerosis & its medical & surgical treatment of otosclerosis. 63. Discuss OME & its medical and surgical treatment
Approach to patient with a Sensorinual Hearing Loss(SNHL)	Small group discussion	64. Discuss SNHL & its differential diagnosis. 65. Discuss tinnitus & its management. 66. Discuss Ototoxicity & its management.
Vertigo Vestibular Neuronitis Meniere's Diseases BPPV	lecture	
Approach to a deaf patient	pbl	70. Discuss the approach to a deaf patient.
Approach to Management of Deaf Child	sgd	71. Differentiate congenital, developmental, and acquired hearing loss & describe the impact of hearing impairment at various ages and their management.

Nasal Obstruction

TOPIC		LEARNING OBJECTIVES
Applied Anatomy, Physiology of Nose & Paranasal Sinuses	lecture	72. Discuss the surgical anatomy, physiology & congenital disorders of the nose & PNS. 73. Discuss the congenital disorders of the nose, palate & choanal atresia

Diseases of the Nasal Septum	lecture	74. Discuss DNS, its types, the clinical features, medical & surgical treatment of nasal obstruction.
Sino-Nasal Polyposis	lecture	75. Discuss sino-nasal polyposis, its types and describe the clinical features, medical & surgical treatment of nasal polyps.
Fungal Rhinosinusitis	lecture	76. Discuss various fungi implicated in fungal rhinosinusitis and the appropriate clinical, radiological investigations and treatment of fungal rhinosinusitis.
Sino-Nasal Tumors	lecture	77. Discuss various benign and malignant tumors affecting the nose and paranasal

TOPIC		LEARNING OBJECTIVES
		sinuses and their clinical features, step involved in diagnosis and treatment options.
Trauma to Nose and Face and CSF rhinorrhea	lecture	78. Discuss the Le Forte classification of mid face fractures & the appropriate clinical and radiological investigations & management of these fractures. 79. Discuss CSF rhinorrhea and the predisposing factors, types, clinical features, investigations and treatment.

Headaches and Facial Pain	Small group discussion	80. Discuss rhinogenic headaches and the appropriate clinical, radiological investigations and treatment.
Granulomatous Diseases of the Nose	pbl	81. Discuss various granulomatous disorders affecting the nose & the clinical features, investigations & treatments.
Adenoids	lecture	82. Discuss anatomy diseases of adenoids and treatment
Juvenile Nasopharyngeal Angiofibroma	lecture	83. Enumerate diseases of the nasopharynx.

TOPIC		LEARNING OBJECTIVES
		84. Discuss Juvenile nasopharyngeal angiofibroma, clinical features, investigations and treatment.
Nasopharyngeal Carcinoma	lecture	85. Discuss the risk factor, clinical features, investigation, treatment and follow up nasopharyngeal carcinoma
Acute Sinusitis	lecture	86. Discuss acute sinusitis & the appropriate clinical, radiological investigations and steps involved in treatment of patients.
Chronic Sinusitis		87. Discuss chronic sinusitis & the appropriate clinical, radiological investigations and steps involved in treatment of patients.

Complications of Sinusitis	Small group discussion	88. Enumerate the predisposing factors for development of complications due to sinusitis. 89. Discuss treatment.
Allergic Rhinitis (AR) and Non- allergic	lecture	90. Discuss allergic rhinitis and its types, pathophysiology, investigations & the medical and surgical treatment.

TOPIC	HOURS	LEARNING OBJECTIVES
		91. Discuss non -allergic rhinitis and the appropriate clinical and radiological investigations and its treatment.
Infective Rhinitis: Acute. & Chronic.	lecture	92. Discuss infective rhinitis and the medical and surgical treatment of various types of acute and chronic infective rhinitis.
Foreign Body, Rhinolith, Maggots Nose	lecture	93. Discuss Rhinolith and maggots in the nose and the appropriate medical and surgical treatment of patients with these conditions.
Approach to a patient with Epistaxis	Bedside teaching	94. Approach to a patient with epistaxis 95. Discuss epistaxis & the appropriate clinical, radiological & hematological investigations & treatment of the condition.

Neck Swelling

TOPIC		LEARNING OBJECTIVES
Para pharyngeal Abscess	lecture	96. Discuss the aetiology and management of each Para pharyngeal abscess.
Retropharyngeal Abscess	lecture	97. Discuss the types, aetiology, treatment and complications of each retropharyngeal abscess.
Submandibular Abscess	sgd	98. Discuss the causes and treatment of submandibular abscess.
Trauma of the Larynx and Neck		99. Classify the nature of trauma to the neck & larynx. 100. Discuss clinical features, investigations and treatment.
Approach to a neck swelling	Case based teaching	101. Discuss the approach to a neck swelling.
Evaluation of metastatic lymph nodes and occult primary in Neck (Occult Primary).	PBL	102. Discuss Occult primary & the predictable nodal drainage in head and Neck region. 103. Discuss the signs and symptoms of occult primary & the appropriate clinical and radiological investigations & different treatment options.

Sore Throat

Difficulty in Swallowing

Topic		Learning objectives	Assessment method
Rigid Endoscopy system	Small group discussion	1. Identify instruments & equipment used in rigid endoscopy system, describe rigid endoscopies.	OSCE
Oral & oropharyngeal mass palpation	Case based teaching	2. How to palpate a mass in the oral cavity and oropharynx	OSCE
Oesophagoscopy	lecture	3. Observe rigid oesophagoscopy done for pharyngeal growth or dysphagia	OSCE

Hoarseness and Stridor

Topic		Learning objectives	Assessment method
History taking	bedside	1. Obtain detailed history of hoarseness & stridor	OSCE
Examination	In ward	2. Perform Examination in a patient with hoarseness & stridor, including general physical, local and systemic examination	OSCE
Indirect laryngoscopy examination	Ward teaching	3. Perform mirror examination of Laryngopharynx	OSCE
Examination of Neck	Case based t	4. Perform systematic examination of Neck	OSCE
Investigations of Laryngeal diseases	Ward teaching	5. Fill requisition form for different types of investigations for Laryngeal diseases.	OSCE
Video laryngoscopy			OSCE
Conservative management of Hoarseness	In ward	7. Discuss a conservative management plan for a patient of hoarseness due to voice abuse.	OSCE
Laryngoscopy	ward	8. Observe rigid system laryngoscopy under general anesthesia and identify instruments used in the procedure	OSCE
Communicate with a patient for voice rest	Communication skill	9. Counsel a patient on voice rest	OSCE
Stridor in bilateral abductor vocal paralysis	lectrure	10. Council bilateral abductor paralysis patient & its management in a post thyroidectomy patient	OSCE

Tracheostomy	ot	12. Demonstrate the procedure of tracheostomy	Formative
Communicate with patient on laryngectomy	On patient	13. Demonstrate the procedure how to Obtain informed consent from a patient for total laryngectomy	OSCE
Biopsy from laryngeal growth.	In ward	11. Observe the procedure for taking biopsy from laryngeal growth.	Formative

Deafness, Ear Discharge & Dizziness

Topic	Learning objectives	Assessment method
History taking	1. Obtain detailed history from a patient with ear discharge/deafness/dizziness	OSCE
Local Examination	2. Perform clinical examination of the hearing & balance system.	OSCE
Otoscopy Tuning fork test Balance testing	3. Perform otoscopic examination of the ear 4. Perform tuning fork tests 5. Perform test of balance, peripheral & central	OSCE
Examination under microscope	6. Assist in performing EUM	
Investigations of ear diseases	7. Discuss & fill requisition form for different types of investigations for ear diseases.	OSCE
Interpretation of audiogram and Impedance	8. Discuss the interpretation of audiogram and impedance.	OSCE

Nasal Obstruction

Topic	Learning objectives	Assessment method
History taking	1. Obtain detailed history from a patient with nasal obstruction	OSCE
Local Examination	2. Perform clinical examination of the nose & paranasal sinuses.	OSCE
Anterior & posterior Rhinoscopy	3. Perform anterior & posterior Rhinoscopies with mirror	
Probe test	4. Perform probe test	
Nasendoscopy		OSCE
Pus culture / sensitivity	6. Perform Take swab from nose for different purpose	
X - Rays nasopharynx /PNS	7. interpret X - Rays nasopharynx/PNS for enlarged soft tissues shadow	OSCE
Nasal patency & adenoid facies in enlarged adenoids	8. Perform examination for nasal patency in enlarged adenoids.	OSCE
Adenoid surgery	9. Observe adenoid surgery being done in operating room	Formative
CT scan nose & nasopharynx	10. Interpret CT scan in nasopharyngeal angiofibroma, describe bowing sign.	Formative

Nasopharyngeal Biopsy	11. Observe surgery for nasopharyngeal biopsy	Formative
Investigations of nose & paranasal sinuses diseases	12. Document Fill requisition form for different types of investigations for nose & paranasal sinuses diseases.	Formative

Swelling Neck

Topic	Learning objectives	Assessment method
Examination of Neck Nodes	1. Perform systematic examination of all groups of neck nodes	OSCE
Examination of lump in the neck	2. Perform examination of lump in the neck in a systematic way.	OSCE
Surgery on a pharyngeal abscess	3. Observe surgery on a pharyngeal abscess & describe drainage of peritonsillar abscess	OSCE
Thyroid examination	4. Perform Thyroid Examination both anatomically & functionally	OSCE
Pharyngeal abscess surgery related instruments	5. Identify instruments used in drainage of pharyngeal abscess surgery	OSCE
Examination of parotid	6. Perform examination of parotid swelling	OSCE
Examination of thyroid	7. Perform examination of thyroid gland	OSCE

Learning Resources

		<p>3. Diseases of Ear, Nose and Throat by P.L. Dhingra, 6th edition (optional reading)</p> <p>Reference Books</p> <p>1. Current medical diagnosis & treatment by Maxine A. Papadakis</p> <p>2. Scott-Brown's Otorhinolaryngology, Head & Neck Surgery</p>
5.	Pathology	<p>1. Robbins & Cotran, Pathologic Basis of Disease, 9th edition.</p> <p>2. Rapid Review Pathology, 4th edition by Edward F. Goljan MD</p>
5.	Pediatrics	<p>1. Nelson Textbook of Pediatrics, 19th Edition</p> <p>2. Textbook of Pediatrics by PPA, preface written by S. M. Haneef</p> <p>3. Clinical Pediatrics by Lakshmanaswamy Aruchamy, 3rd Edition</p>
6.	Pharmacology	<p>1. Lippincott Illustrated Pharmacology</p> <p>2. Basic and Clinical Pharmacology by Katzung</p>

