ENT Past Paper Complete Analysis

High-Yield Exam-Oriented Summary

Based on Final Examination Papers (2010–2020)

224+ Questions Analyzed | 13 Chapters | Slide References Included

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Chapter 1: External Ear Conditions

17 Questions Analyzed

1.1 Referred Otalgia & Ear Innervation

Key Concepts

The ear receives sensory innervation from multiple cranial nerves. Understanding referred otalgia is essential for diagnosing non-otologic causes of ear pain.

KEY TEACHING POINTS

Referred otalgia is ear pain originating from a distant source. The ear is innervated by CN V, VII, IX, and X — NOT CN XII (hypoglossal).

Q1: Which of the following nerves is NOT associated with referred otalgia?

✓ **Answer: D — Hypoglossal nerve (CN XII)**

Explanation: CN XII is purely motor to the tongue. It does NOT supply the ear and cannot cause referred otalgia. CN V, VII, IX, and X all supply the ear and are sources of referred pain.

Slide: External Ear disease

[Final 013]

Q2: The following nerve is the source of referred pain to the ear:

✓ **Answer: A — Glossopharyngeal nerve (CN IX)**

Explanation: CN IX supplies the middle ear via Jacobson's nerve and is a classic source of referred otalgia (e.g., from tonsillar carcinoma).

Slide: External Ear disease

Q3: The cough response caused while cleaning the ear canal is mediated by stimulation of:

✓ **Answer: A — The 10th cranial nerve (Vagus, CN X)**

Explanation: The auricular branch of the vagus nerve (Arnold's nerve) supplies the posterior external ear canal. Stimulation triggers the ear-cough reflex. This is also why ear examination can cause vasovagal episodes.

Slide: External Ear disease

[Final 017 & 016]

MCQ TRAP

CN XII (hypoglossal) is the ONLY cranial nerve that does NOT supply the ear. All others (V, VII, IX, X) can cause referred otalgia. This is a classic exam question.

1.2 Auricular Hematoma & Trauma

Auricular hematoma results from blunt trauma to the pinna, causing blood accumulation between the perichondrium and cartilage. If untreated, it leads to 'cauliflower ear' due to cartilage necrosis.

Q4: A patient in head trauma with bilateral ear bleeding, first step is:

✓ **Answer: B — Oral intubation**

Explanation: Bilateral ear bleeding in head trauma suggests a basilar skull fracture. The priority is securing the airway (ABC protocol). Oral intubation is the first step to protect the airway.

Slide: External Ear disease

Q5: The treatment of a large hematoma of the auricle is:

✓ Answer: C — Evacuation plus pressure bandaging and antibiotics

Explanation: Large hematomas require complete evacuation (incision & drainage), pressure bandaging to prevent re-accumulation, and antibiotics to prevent perichondritis. Aspiration alone is insufficient for large hematomas.

Slide: External Ear disease

Q6: A child fell on her ear, next day the pinna is swollen and red, what is the management?

✓ Answer: C — Aspiration and drainage with pressure dressing

Explanation: In children with auricular hematoma, aspiration and drainage with pressure dressing is preferred. Pressure dressing is critical to prevent re-accumulation and cauliflower ear deformity.

Slide: External Ear disease

[Final 020]

KEY TEACHING POINTS

Cauliflower ear prevention: ANY auricular hematoma requires evacuation + pressure bandage. Without pressure, the blood re-accumulates and cartilage necrosis occurs → permanent deformity.

1.3 Otitis Externa

Otitis externa is inflammation of the external ear canal. It is classified into acute diffuse, localized (furuncle), malignant (necrotizing), and fungal (omycosis) types.

Q7: All of the following about otitis externa is true EXCEPT:

✓ Answer: A — In a young adult

Explanation: Otitis externa is NOT particularly common in young adults. It is more common in diabetics (especially malignant/necrotizing form) and is most commonly caused by Pseudomonas aeruginosa. The 'EXCEPT' makes A the answer.

Slide: External Ear disease

Q8: All of the following are common associated symptoms of furuncle of the vibrissae EXCEPT:

✓ Answer: B — Headache

Explanation: Furuncle of the vibrissae (hair follicles in the nasal vestibule) presents with fever, pus-filled discharge, painful swelling, and nasal obstruction. Headache is NOT a typical associated symptom.

Slide: External Ear disease

[Final 017]

Q9: What is the most common cause of acute diffuse otitis externa?

✓ Answer: A — Pseudomonas aeruginosa

Explanation: Pseudomonas aeruginosa is the #1 cause of acute diffuse otitis externa. It thrives in moist environments. 'Swimmer's ear' is the classic clinical scenario.

Slide: External Ear disease

[Final 019 & 013]

Q10: Which of the following is NOT a typical feature of malignant otitis externa?

✓ Answer: B — Mitotic figures are high

Explanation: Malignant (necrotizing) otitis externa is an aggressive infection in elderly diabetics/immunocompromised patients caused by Pseudomonas. Granulation tissue at the bony-cartilaginous junction is pathognomonic. 'Mitotic figures are high' is a histologic term for malignancy, NOT a feature of this infection.

Slide: External Ear disease

[Final 016]

HIGH-YIELD COMPARISON

Otitis Externa Types Comparison
Acute Diffuse: Pseudomonas, painful, edematous canal
Localized (Furuncle): Staph aureus, hair follicle infection
Malignant/Necrotizing: Pseudomonas, elderly diabetic, granulation tissue, CN palsies
Fungal (Otomycosis): Aspergillus niger (most common), black dots on otoscopy

1.4 Otomycosis — Fungal Otitis Externa

Otomycosis is fungal infection of the external ear canal. Aspergillus niger is the most common causative organism, presenting with black dots (fungal spores) on otoscopy.

Q11: The most common fungus in otomycosis externa is:

✓ Answer: D — Aspergillus niger

Explanation: Aspergillus niger is the most common fungus causing otomycosis. It appears as black dots or 'wet newspaper' in the ear canal on otoscopy.

Slide: External Ear disease

Q12: Which of the following is the treatment of fungal otitis externa?

✓ Answer: E — Local antifungals for 3 weeks

Explanation: Fungal otitis externa is treated with TOPICAL antifungals (not oral) for 3 weeks. Aural toilet (cleaning) is essential before applying topical medication.

Slide: External Ear disease

[Final 020]

Q13: A patient came complaining of itching. On otoscopy, black dots are seen in the ear canal, what's the best management option?

✓ Answer: C — Aural toilet & topical antifungal

Explanation: Black dots = Aspergillus niger spores. Management: aural toilet (cleaning/debridement) followed by topical antifungal drops. Aural toilet is CRITICAL — medication cannot penetrate fungal debris.

Slide: External Ear disease

[Final 017]

Q14: During aural toilet, the direction of the saline wash is:

✓ Answer: C — Posterior superior

Explanation: During aural toilet, saline is directed POSTERIOR-SUPERIOR along the ear canal. This follows the natural anatomy of the ear canal and avoids pushing debris toward the tympanic membrane.

Slide: External Ear disease

[Final 017]

Q15: Otitis externa due to Aspergillus niger is treated with:

✓ Answer: A — 2% sodium bicarbonate

Explanation: 2% sodium bicarbonate (alkaline solution) is used to treat Aspergillus niger otitis externa. It creates an alkaline environment that inhibits fungal growth. This is a specific treatment for fungal otitis externa.

Slide: External Ear disease

Q16: One is true about mycosis of the external ear:

✓ Answer: D — Ear blockage

Explanation: Fungal otitis externa typically presents with ear blockage/fullness and itching. Severe pain and high fever are features of bacterial (especially malignant) otitis externa, not fungal.

Slide: External Ear disease

Q17: What is true about necrotizing otitis externa?

✓ Answer: B — More common in diabetic elderly

Explanation: Necrotizing (malignant) otitis externa is caused by Pseudomonas aeruginosa, NOT Staph. It occurs almost exclusively in elderly diabetic or immunocompromised patients. It is NOT a disease of children.

Slide: External Ear disease

MUST MEMORIZE

External Ear Must-Knows:

- CN innervation of ear: V, VII, IX, X (NOT XII)
- Arnold's nerve (CN X auricular branch) → ear-cough reflex
- Pseudomonas = #1 cause of acute diffuse otitis externa
- Aspergillus niger = #1 fungus in otomycosis (black dots)
- Malignant OE: elderly diabetic + Pseudomonas + granulation tissue
- Auricular hematoma: evacuate + pressure bandage → prevent cauliflower ear
- Aural toilet direction: posterior-superior

Chapter 2: Acute Otitis Media

13 Questions Analyzed

2.1 Microbiology & Pathogenesis of AOM

Acute Otitis Media (AOM) is most commonly viral in origin, but bacterial superinfection occurs. The most common bacterial pathogens are Streptococcus pneumoniae, Haemophilus influenzae, and Moraxella catarrhalis.

Q1: Which of the following is FALSE regarding acute otitis media?

✓ **Answer: D — 2% complicated by bacterial infection**

Explanation: AOM is MOSTLY viral, but bacterial superinfection occurs in MUCH more than 2% of cases. The figure of 2% is falsely low — bacterial AOM is common, especially in children.

Slide: AOM with effusion

[Final 020]

Q2: Common organisms in acute suppurative otitis media include all the following EXCEPT:

✓ **Answer: B — Pseudomonas aeruginosa**

Explanation: Pseudomonas is NOT a common cause of AOM. It is associated with malignant otitis externa and chronic suppurative otitis media (CSOM). The classic AOM bacteria are S. pneumoniae, H. influenzae, M. catarrhalis, and S. aureus.

Slide: AOM with effusion

Q3: Which is NOT a factor in causing otitis media?

✓ **Answer: D — Dental infection**

Explanation: Dental infection is NOT a recognized risk factor for AOM. Allergy, Eustachian tube dysfunction, bacterial infection, and immotile cilia (e.g., Kartagener syndrome) are all established risk factors.

Slide: AOM with effusion

KEY TEACHING POINTS

AOM bacteria: S. pneumoniae (#1), H. influenzae, M. catarrhalis, S. aureus. Pseudomonas is NOT a cause of AOM — it causes malignant OE and CSOM.

2.2 Bullous Myringitis

Bullous myringitis is characterized by painful hemorrhagic bullae on the tympanic membrane. It was traditionally attributed to Mycoplasma pneumoniae, but current evidence shows it is most commonly caused by viral infection.

Q4: Bullous myringitis is caused by:

✓ **Answer: B — Viral infection**

Explanation: Bullous myringitis is caused by VIRAL infection. Although historically linked to Mycoplasma, viral pathogens are now recognized as the most common cause. It presents with severe otalgia and hemorrhagic bullae on the TM.

Slide: AOM with effusion

[Final 017]

MCQ TRAP

Bullous myringitis = VIRAL, not bacterial. Don't confuse with traditional teaching of Mycoplasma — exam answer is viral.

2.3 AOM Epidemiology & Risk Factors

Q5: Regarding acute otitis media, which of the following is correct?

✓ **Answer: 50-45% of bacterial AOM are due to S. pneumoniae**

Explanation: S. pneumoniae accounts for approximately 40-50% of bacterial AOM cases. The claim that >80% of AOM cases are bacterial is incorrect — most AOM is viral in origin.

Slide: AOM with effusion

[Final 018]

2.4 AOM Treatment & Complications

Most AOM cases resolve spontaneously. Antibiotics are indicated for severe cases, young infants, or persistent symptoms. Amoxicillin is first-line. Complications include mastoiditis, meningitis, and brain abscess.

Q6: A child with AOM develops facial nerve palsy. What is the most appropriate next step?

✓ **Answer: C — IV antibiotics + myringotomy**

Explanation: Facial nerve palsy in AOM indicates a complication requiring IV antibiotics and surgical drainage (myringotomy). This is beyond simple outpatient management.

Slide: AOM with effusion

Q7: The most common complication of acute otitis media is:

✓ **Answer: A — Mastoiditis**

Explanation: Mastoiditis is the most common complication of AOM. The mastoid air cells are contiguous with the middle ear, making them vulnerable to spread of infection.

Slide: AOM with effusion

Q8: A 2-year-old with AOM not improving after 72 hours of amoxicillin. What is the next step?

✓ **Answer: B — Switch to amoxicillin-clavulanate**

Explanation: If AOM fails to improve after 48-72 hours of amoxicillin, switch to amoxicillin-clavulanate (Augmentin) to cover beta-lactamase producing organisms (H. influenzae, M. catarrhalis).

Slide: AOM with effusion

Q9: Which of the following is a criterion for starting antibiotics in AOM?

✓ **Answer: C — Age <6 months**

Explanation: Antibiotics are indicated for AOM in infants <6 months (regardless of severity), and in older children with severe or bilateral disease. Age >5 years and mild symptoms are NOT indications.

Slide: AOM with effusion

Q10: Recurrent AOM is defined as how many episodes in 6 months?

✓ **Answer: B — 3 episodes**

Explanation: Recurrent AOM = ≥3 episodes in 6 months, or ≥4 episodes in 12 months. This is a key threshold for considering tympanostomy tubes or further workup.

Slide: AOM with effusion

Q11: The most common cause of hearing loss in children aged 3-5 years is:

✓ Answer: B — Otitis media with effusion (OME)

Explanation: OME is the MOST COMMON cause of hearing loss in children aged 3-5 years. It frequently follows AOM and causes conductive hearing loss due to fluid accumulation in the middle ear.

Slide: AOM with effusion

[Final 018]

Q12: Serous otitis media (OME), the most common cause is:

✓ Answer: C — Adenoids

Explanation: Adenoid hypertrophy is the most common cause of OME in children. Adenoids obstruct the Eustachian tube orifice, leading to negative middle ear pressure and fluid accumulation.

Slide: AOM with effusion

[Final 019]

Q13: The most common cause of persistent mucopurulent discharge after resolution of otitis media is:

✓ Answer: A — Cholesteatoma

Explanation: Persistent mucopurulent discharge after AOM resolution should raise suspicion for cholesteatoma. This is an epithelial sac that can erode bone and cause chronic drainage.

Slide: AOM with effusion

[Final 019]

MUST MEMORIZE

AOM Must-Knows:

- Most AOM is VIRAL; bacterial superinfection is common
- #1 bacterial cause: S. pneumoniae (40-50%)
- Pseudomonas is NOT a cause of AOM
- Bullous myringitis = VIRAL
- #1 complication: Mastoiditis
- #1 cause of hearing loss in 3-5 year olds: OME
- #1 cause of OME: Adenoids
- Recurrent AOM: ≥3 episodes in 6 months
- First-line antibiotic: Amoxicillin
- Failed amoxicillin → Amoxicillin-clavulanate

Chapter 3: Chronic Otitis Media

18 Questions Analyzed

3.1 Cholesteatoma

Cholesteatoma is an abnormal collection of keratinizing squamous epithelium in the middle ear/mastoid. It is classified as congenital or acquired. Attic/marginal perforations are the most common sites.

Q1: Cholesteatoma is associated with all EXCEPT:

✓ **Answer: C — Central perforation**

Explanation: Cholesteatoma is associated with attic and marginal perforations, NOT central perforations. Central perforations are typical of mucosal (safe) type CSOM. Cholesteatoma causes scanty foul discharge, vertigo (lateral semicircular canal erosion), and intracranial complications.

Slide: Chronic otitis media

Q2: Definite diagnosis of cholesteatoma is done by:

✓ **Answer: A — Otoscopy**

Explanation: Cholesteatoma is diagnosed clinically by OTOSCOPY. Findings include attic retraction pocket, white keratin debris, and attic/marginal perforation with granulation tissue. CT is used for surgical planning, not diagnosis.

Slide: Chronic otitis media

[Final 014]

Q3: Cholesteatoma is best described as:

✓ **Answer: A — A growing pocket of skin**

Explanation: Cholesteatoma is a 'growing pocket' (retraction pocket) of keratinizing squamous epithelium that expands and erodes surrounding structures. It is NOT a tumor despite the '-oma' suffix.

Slide: Chronic otitis media

Q4: The characteristic of pus in cholesteatoma is:

✓ **Answer: A — Scanty and foul-smelling**

Explanation: Cholesteatoma discharge is characteristically SCANTY and FOUL-SMELLING due to bone erosion and secondary infection. This distinguishes it from mucosal CSOM which has profuse mucoid discharge.

Slide: Chronic otitis media

Q5: Cholesteatoma can cause all EXCEPT:

✓ **Answer: D — Improved hearing**

Explanation: Cholesteatoma is DESTRUCTIVE — it erodes bone, causes facial nerve palsy, SNHL (labyrinthine fistula), and vertigo (lateral SCC erosion). It NEVER improves hearing.

Slide: Chronic otitis media

Q6: Cholesteatoma, all EXCEPT:

✓ **Answer: A — After central perforation of tympanic membrane**

Explanation: Cholesteatoma arises from ATTIC or MARGINAL perforations, NOT central perforations. Central perforations = 'safe' mucosal type. Attic/marginal = 'unsafe' squamous type with cholesteatoma.

Slide: Chronic otitis media

HIGH-YIELD COMPARISON

Safe vs Unsafe CSOM
Safe (Mucosal): Central perforation, profuse mucoid discharge, NO cholesteatoma, minimal complications
Unsafe (Squamous): Attic/marginal perforation, scanty foul discharge, CHOLESTEATOMA, can cause intracranial complications
Attico-antral disease: Unsafe type with cholesteatoma in attic/antrum

3.2 Attico-antral Disease

Q7: All are true about attico-antral disease EXCEPT:

✓ **Answer: C — Central perforation**

Explanation: Attico-antral disease (unsafe/squamous type) has ATTIC or MARGINAL perforation, NOT central perforation. Features: scanty foul discharge, cholesteatoma, requires surgical treatment (mastoidectomy).

Slide: Chronic otitis media

3.3 Complications of Chronic Suppurative Otitis Media

Q8: All are possible causes of intracranial complications in CSOM EXCEPT:

✓ **Answer: D — Local osteomyelitis**

Explanation: Intracranial complications of CSOM spread via: direct bone erosion, vascular channels, skull fractures, congenital defects, and post-surgical pathways. Local osteomyelitis is a LOCAL complication, not intracranial.

Slide: Chronic otitis media

Q9: The most common complication of cholesteatoma is:

✓ **Answer: D — Erosion of the lateral semicircular canal**

Explanation: The MOST common complication of cholesteatoma is erosion of the lateral semicircular canal (labyrinthine fistula), causing vertigo. Brain abscess, meningitis, and lateral sinus thrombosis are less common but more dangerous.

Slide: Chronic otitis media

3.4 Secretory Otitis Media (Otitis Media with Effusion)

Q10: Which of the following is TRUE regarding OME?

✓ **Answer: A — The perforation is central (trick: this question is about SIMPLE CSOM, not cholesteatoma)**

Explanation: In secretory/mucosal CSOM, the perforation is CENTRAL (safe type), discharge is mucoid (not foul), and there is NO cholesteatoma. This contrasts with attico-antral (unsafe) disease.

Slide: Chronic otitis media

Q11: All are common complications of secretory otitis media EXCEPT:

✓ **Answer: C — Sensorineural deafness**

Explanation: OME causes CONDUCTIVE hearing loss, NOT sensorineural deafness. Complications include cholesteatoma, cholesterol granuloma, adhesive otitis media, and recurrent AOM. SNHL is NOT a typical complication.

Slide: Chronic otitis media

[Final 015/Older]

Q12: The management of a patient with OME persisting for 3 months with hearing loss is:

✓ Answer: C — Myringotomy with grommet insertion

Explanation: OME persisting >3 months with hearing loss warrants myringotomy with tympanostomy tube (grommet) insertion. This ventilates the middle ear and prevents complications.

Slide: Chronic otitis media

3.5 Traumatic Tympanic Membrane Perforation

Q13: The management of recent traumatic tympanic membrane perforation is:

✓ Answer: D — Watchful observation

Explanation: Recent traumatic TM perforation is managed with WATCHFUL OBSERVATION. Most heal spontaneously within 3 months. Keep ear dry, avoid water entry. Myringoplasty is considered if it fails to heal.

Slide: Chronic otitis media

Q14: Treatment of dry traumatic rupture of tympanic membrane is:

✓ Answer: E — Protection of ear against water

Explanation: Dry traumatic TM perforation: protect ear from water entry. Most heal spontaneously. NO antibiotic drops (risk of ototoxicity with TM perforation). Myringoplasty only if fails to heal after 3 months.

Slide: Chronic otitis media

[Final 016]

Q15: Which factor most strongly predicts spontaneous healing of traumatic TM perforation?

✓ Answer: A — Size of perforation

Explanation: The size of the perforation is the strongest predictor. Small perforations (<25% of TM) heal spontaneously in >90% of cases. Large perforations are less likely to heal without surgical intervention.

Slide: Chronic otitis media

3.6 Additional CSOM Topics

Q16: Which of the following is the most common intracranial complication of CSOM?

✓ Answer: B — Meningitis

Explanation: Meningitis is the most common intracranial complication of CSOM. Brain abscess (temporal lobe or cerebellar) and lateral sinus thrombosis are also important complications.

Slide: Chronic otitis media

Q17: Petrositis (Gradenigo's syndrome) presents with the triad of:

✓ Answer: A — Otalgia, diplopia, otorrhea

Explanation: Gradenigo's syndrome triad: (1) Otalgia/otorrhea (from otitis media), (2) Diplopia (from CN VI palsy — abducens nerve in Dorello's canal), (3) Deep facial pain (from CN V involvement at the petrous apex).

Slide: Chronic otitis media

Q18: The treatment of choice for cholesteatoma is:

✓ **Answer: C — Mastoidectomy**

Explanation: Cholesteatoma requires SURGICAL treatment (mastoidectomy). Antibiotics alone cannot eradicate cholesteatoma because it is a structural lesion involving keratinizing epithelium. Surgery is mandatory.

Slide: Chronic otitis media

MUST MEMORIZE

CSOM Must-Knows:
- Cholesteatoma = attic/marginal perforation (NOT central)
- Cholesteatoma discharge: scanty + foul-smelling
- Diagnosis of cholesteatoma: OTOSCOPY (clinical)
- Treatment of cholesteatoma: MASTOIDSURGERY (mandatory)
- Traumatic TM perforation: watchful observation + keep ear dry
- Most common intracranial complication of CSOM: Meningitis
- Gradenigo's triad: Otalgia + Diplopia (CN VI) + Otorrhea
- SNHL is NOT a complication of OME (conductive only)
- OME >3 months → myringotomy + grommet

Chapter 4: Tinnitus

4 Questions Analyzed

4.1 Tinnitus — Types & Causes

Tinnitus is the perception of sound without an external stimulus. It is classified as subjective (only patient hears it) or objective (examiner can also hear it).

Q1: Which of the following is a cause of OBJECTIVE tinnitus?

✓ **Answer: D — Palatal myoclonus**

Explanation: Palatal myoclonus causes OBJECTIVE tinnitus (rhythmic clicking heard by both patient and examiner). All other options cause SUBJECTIVE tinnitus.

Slide: Tinnitus

[Final 017]

Q2: Which of the following is true about Meniere's disease regarding tinnitus?

✓ **Answer: D — It is associated with tinnitus & aural fullness**

Explanation: Meniere's disease = triad of episodic vertigo + tinnitus + aural fullness + SNHL. It is SENSORINEURAL (not conductive).

Slide: Tinnitus

[Final 012]

Q3: Tinnitus is seen in all EXCEPT:

✓ **Answer: A — Loud noise (correction noted in source)**

Explanation: This question has a correction in the source document. Tinnitus IS caused by loud noise. The intended answer may differ.

Slide: Tinnitus

Q4: First-line treatment of chronic tinnitus is:

✓ **Answer: D — Retraining (TRT: Tinnitus Retraining Therapy)**

Explanation: Tinnitus Retraining Therapy (TRT) is first-line for chronic bothersome tinnitus.

Slide: Tinnitus

HIGH-YIELD COMPARISON

Tinnitus Comparison
Subjective (95%): Only patient hears it — noise-induced, Meniere's, presbycusis, ototoxicity
Objective (5%): Examiner can hear it — palatal myoclonus, glomus tumor, AVM, venous hum

MUST MEMORIZE

Tinnitus Must-Knows:
- Objective tinnitus: palatal myoclonus, glomus tumor, AVM
- Meniere's triad: Episodic vertigo + Tinnitus + Aural fullness + Fluctuating SNHL
- First-line treatment: Tinnitus Retraining Therapy (TRT)

Chapter 5: Vertigo

9 Questions Analyzed

5.1 Vertigo — Overview

Vertigo is the sensation of self-motion when no motion is present. The most common cause is BPPV. Classified as peripheral (inner ear) or central (brainstem/cerebellum).

Q1: Which part of the inner ear is responsible for sensing ANGULAR movement?

✓ **Answer: B — Semicircular canals**

Explanation: The three semicircular canals detect ANGULAR (rotational) acceleration. The utricle and saccule detect LINEAR acceleration and head position.

Slide: Vertigo

[Final 012]

Q2: What is the MOST COMMON cause of vertigo?

✓ **Answer: A — BPPV**

Explanation: BPPV is the #1 cause of vertigo. Caused by displaced otoconia in the semicircular canals (usually posterior canal). Brief episodes triggered by head position changes.

Slide: Vertigo

[Final 014]

Q3: A patient describes sudden onset vertigo WITHOUT hearing loss for 3 days that resolved on its own. Most likely diagnosis?

✓ **Answer: B — Vestibular neuritis**

Explanation: Vestibular neuritis: sudden vertigo lasting DAYS, WITHOUT hearing loss, resolves spontaneously. Labyrinthitis = vertigo WITH hearing loss.

Slide: Vertigo

[Final 019]

Q4: In which age group is vertigo and unsteadiness MOST common?

✓ **Answer: D — Old aged above 60 years**

Explanation: Vertigo and unsteadiness are MOST COMMON in the elderly (>60 years).

Slide: Vertigo

[Final 014]

Q5: Intermediate duration vertigo (minutes to hours) is seen in:

✓ **Answer: C — Meniere's disease**

Explanation: Meniere's disease causes vertigo lasting MINUTES TO HOURS (20 min to 12 hours).

Slide: Vertigo

Q6: One will cause UNILATERAL vertigo WITHOUT deafness:

✓ **Answer: A — Vestibular neuritis**

Explanation: Vestibular neuritis causes unilateral vertigo WITHOUT hearing loss. Meniere's and CP angle tumors cause vertigo WITH hearing loss.

Slide: Vertigo

5.2 Nystagmus — Peripheral vs Central

Q7: All are features of CENTRAL nystagmus EXCEPT:

✓ Answer: C — Decreases with time

Explanation: Central nystagmus does NOT decrease with time (it persists). Peripheral nystagmus decreases with time (fatigues).

Slide: Vertigo

Q8: Regarding peripheral nystagmus, all are correct EXCEPT:

✓ Answer: B — Will not fatigue on Hallpike's maneuver

Explanation: Peripheral nystagmus DOES fatigue on repeated Hallpike's maneuver. This distinguishes BPPV from central causes.

Slide: Vertigo

Q9: NOT a characteristic of peripheral nystagmus:

✓ Answer: A — Changes direction with different postures

Explanation: Direction-changing nystagmus with different postures suggests a CENTRAL lesion. Peripheral nystagmus is unidirectional.

Slide: Vertigo

HIGH-YIELD COMPARISON

Peripheral vs Central Vertigo
Peripheral: Horizontal-rotatory nystagmus, unidirectional, fatigues, suppressed by visual fixation
Central: Multidirectional or purely vertical, does NOT fatigue, NOT suppressed by visual fixation

KEY TEACHING POINTS

Vertigo Duration Strategy: Seconds = BPPV | Minutes-hours = Meniere's | Days = Vestibular neuritis | Weeks = Central cause

MUST MEMORIZE

Vertigo Must-Knows:
• #1 cause of vertigo: BPPV
• Semicircular canals = angular movement
• BPPV: seconds, position-triggered, fatigues
• Vestibular neuritis: days, NO hearing loss
• Meniere's: minutes-hours triad
• Purely vertical nystagmus = ALWAYS central

Chapter 6: Hearing Assessment in Children

7 Questions Analyzed

6.1 Hearing Assessment in Children

Neonatal hearing screening is critical for early detection of congenital hearing loss. ABR is the gold standard screening tool.

Q1: The assessment of hearing in bilateral congenital aural atresia is best accomplished using:

✓ **Answer: A — ABR**

Explanation: ABR is BEST for congenital aural atresia because it does NOT require a patent ear canal.

Slide: Assessment of hearing in children

[Final 015 & 010]

Q2: How is NEONATE hearing assessment typically performed?

✓ **Answer: C — ABR**

Explanation: Neonates are screened with ABR (or OAE initial screen, ABR confirmation). Pure-tone requires cooperation.

Slide: Assessment of hearing in children

[Final 017 & 016 & 011]

Q3: ABR is done for all of the following risk factors EXCEPT:

✓ **Answer: D — Maternal severe depression**

Explanation: Maternal depression is NOT a risk factor for neonatal hearing loss. JCIH risk factors: TORCH, family hx, hyperbilirubinemia, low birth weight, NICU, ototoxic drugs, meningitis.

Slide: Assessment of hearing in children

[Final 018]

Q4: In ABR, you can detect:

✓ **Answer: A — Auditory neuropathy**

Explanation: ABR detects ANSD — present OAE but abnormal ABR (neural conduction impaired).

Slide: Assessment of hearing in children

[Final 020]

Q5: Which carries the HIGHEST risk of hearing loss in a baby managed in the ICU?

✓ **Answer: B — NICU + aminoglycoside + hyperbilirubinemia**

Explanation: Multiple risk factors carry higher risk. Aminoglycosides are ototoxic.

Slide: Assessment of hearing in children

[Final 020]

Q6: Which is NOT a child with HIGH RISK for hearing loss?

✓ **Answer: E — Children born by cesarean delivery**

Explanation: Cesarean delivery is NOT a risk factor for hearing loss. Meningitis is the #1 acquired cause.

Slide: Assessment of hearing in children

[Final 017]

Q7: Child of 5 years with delayed speech and inattention. Most likely diagnosis?

✓ Answer: A — OME

Explanation: In a 5-year-old with speech delay and inattention, OME is the most common and treatable cause.

Slide: Assessment of hearing in children

KEY TEACHING POINTS

ABR = gold standard for neonatal hearing screening. Detects auditory neuropathy. JCIH risk factors: TORCH, family hx, hyperbilirubinemia, ICU, ototoxic drugs, meningitis, craniofacial anomalies.

MUST MEMORIZE

Hearing Assessment Must-Knows:
• ABR = gold standard neonatal screening
• ABR works in ear atresia (no patent canal needed)
• ABR detects auditory neuropathy
• #1 acquired SNHL in children: Meningitis
• Cesarean delivery is NOT a hearing loss risk factor
• 5-year-old + speech delay → rule out OME first

Chapter 7: Hearing Loss

22 Questions Analyzed

7.1 Hearing Loss — Overview

Hearing loss is classified as conductive (outer/middle ear), sensorineural (inner ear/auditory nerve), or mixed. Tuning fork tests (Weber and Rinne) are fundamental bedside tools.

Q1: The most common cause of acquired sensorineural hearing loss in children is:

✓ **Answer: D — Meningitis**

Explanation: Meningitis is the #1 cause of acquired SNHL in children. Bacterial meningitis causes cochlear ossification.

Slide: Deafness in adult

Q2: Noise-induced hearing loss characteristically produces:

✓ **Answer: B — 4 kHz notch on audiogram**

Explanation: Noise-induced HL produces a characteristic 4 kHz 'notch' on pure tone audiogram. The 4 kHz region of the cochlea is most vulnerable.

Slide: Deafness in adult

Q3: Presbycusis initially affects which frequencies?

✓ **Answer: C — High frequencies**

Explanation: Presbycusis first affects HIGH frequencies due to degeneration of basal cochlear hair cells.

Slide: Deafness in adult

7.2 Tuning Fork Tests — Weber & Rinne

Q4: In Weber's test, sound is heard louder in the affected ear in:

✓ **Answer: B — Conductive hearing loss**

Explanation: Weber lateralizes to the AFFECTED ear in CONDUCTIVE loss (blocks ambient noise) and to the NORMAL ear in SNHL.

Slide: Deafness in adult

Q5: Rinne test is NEGATIVE when:

✓ **Answer: A — Bone conduction > Air conduction (BC > AC)**

Explanation: Rinne NEGATIVE (abnormal) = BC > AC, indicating CONDUCTIVE hearing loss.

Slide: Deafness in adult

Q6: A patient with right conductive hearing loss and normal left ear. Expected Weber and Rinne:

✓ **Answer: A — Right Rinne -ve, Weber lateralizes to right**

Explanation: Conductive loss: Rinne -ve on affected side. Weber lateralizes to affected ear.

Slide: Deafness in adult

[Final 015]

Q7: In right middle ear pathology, Weber's test will be:

✓ Answer: B — Lateralized to right side

Explanation: Middle ear pathology = CONDUCTIVE loss. Weber lateralizes to the AFFECTED ear.

Slide: Deafness in adult

[Final 016]

Q8: Right Rinne NEGATIVE, left Rinne POSITIVE, Weber lateralizes to RIGHT. Diagnosis?

✓ Answer: B — Right conductive hearing loss

Explanation: Rinne -ve on right (BC > AC), +ve on left. Weber to right (affected ear in conductive loss). Classic for unilateral conductive hearing loss.

Slide: Deafness in adult

[Final 015 & 014 & 010]

Q9: Rinne NEGATIVE on left, POSITIVE on right. Weber localizes to RIGHT. Diagnosis?

✓ Answer: B — Severe left sensorineural deafness (FALSE NEGATIVE Rinne)

Explanation: TRICK: Weber goes to the RIGHT (normal ear) = SNHL on left. The -ve Rinne on left is FALSE NEGATIVE (severe SNHL).

Slide: Deafness in adult

[V2 corrected]

Q10: A patient with right ear conductive hearing loss has:

✓ Answer: E — Weber lateralizes to right + Right Rinne -ve

Explanation: Right conductive loss: Rinne -ve on right, Weber to right. Pathognomonic pattern.

Slide: Deafness in adult

HIGH-YIELD COMPARISON

Tuning Fork Test Interpretation
Conductive loss: Rinne -ve (BC>AC), Weber → affected ear
SNHL: Rinne +ve (AC>BC, both reduced), Weber → normal ear
Severe SNHL: FALSE -ve Rinne, Weber → normal ear

7.3 Additional Hearing Loss Topics

Q11: The most common cause of SNHL in adults is:

✓ Answer: B — Presbycusis

Explanation: Presbycusis is the most common cause of SNHL in adults. Bilateral, symmetrical, high frequencies first.

Slide: Deafness in adult

Q12: Otosclerosis typically causes:

✓ Answer: B — Conductive hearing loss (initially)

Explanation: Otosclerosis□□ presents with CONDUCTIVE hearing loss due to stapes footplate fixation. More common in young adult females.

Slide: Deafness in adult

Q13: The most common genetic cause of SNHL is:

✓ Answer: B — Connexin 26 mutation

Explanation: Connexin 26 (GJB2) mutation is the most common cause of hereditary nonsyndromic SNHL.

Slide: Deafness in adult

Q14: Which ototoxic drug mainly affects the VESTIBULAR system?

✓ Answer: B — Streptomycin

Explanation: Streptomycin is primarily VESTIBULOTOXIC. Gentamicin is both cochleo- and vestibulotoxic.

Slide: Deafness in adult

Q15: Acoustic neuroma typically presents with:

✓ Answer: B — Unilateral SNHL + tinnitus

Explanation: Acoustic neuroma (CN VIII schwannoma) presents with UNILATERAL progressive SNHL + tinnitus. MRI with gadolinium is diagnostic.

Slide: Deafness in adult

Q16: Sudden SNHL is defined as hearing loss occurring within:

✓ Answer: C — 72 hours

Explanation: Sudden SNHL: ≥30 dB loss over ≥3 frequencies within 72 hours. Otologic emergency — treat with corticosteroids.

Slide: Deafness in adult

Q17: The most common cause of conductive hearing loss in adults with intact TM is:

✓ Answer: A — Otosclerosis

Explanation: Otosclerosis is the most common cause of conductive HL in adults with intact TM. Treatment: stapedectomy.

Slide: Deafness in adult

Q18: Gelle test is used to assess:

✓ Answer: A — Stapes mobility

Explanation: Gelle test: positive = mobile stapes; negative = fixed stapes (otosclerosis).

Slide: Deafness in adult

Q19: Tympanometry showing a Type B flat curve indicates:

✓ Answer: C — Middle ear effusion

Explanation: Type B (flat) = no compliance change = middle ear effusion or TM perforation. Type As = otosclerosis. Type Ad = ossicular discontinuity.

Slide: Deafness in adult

Q20: The most common cause of bilateral SNHL in children is:

✓ Answer: B — Genetic (Connexin 26)

Explanation: Genetic causes (especially Connexin 26) are the most common cause of bilateral congenital SNHL.

Slide: Deafness in adult

Q21: Cochlear implants are indicated in:

✓ Answer: C — Severe-to-profound bilateral SNHL

Explanation: Cochlear implants are for severe-to-profound bilateral SNHL who don't benefit from hearing aids.

Slide: Deafness in adult

Q22: Rinne test is FALSELY negative in:

✓ Answer: B — Severe unilateral SNHL

Explanation: In severe/profound unilateral SNHL, Rinne may be FALSELY negative on the affected side due to cross-hearing.

Slide: Deafness in adult

MUST MEMORIZE

Hearing Loss Must-Knows:
- #1 acquired SNHL in children: Meningitis
- #1 SNHL in adults: Presbycusis
- #1 genetic SNHL: Connexin 26
- Weber: → affected ear in conductive, → normal ear in SNHL
- Rinne -ve = conductive loss (BC > AC)
- FALSE negative Rinne = severe unilateral SNHL
- Noise-induced HL: 4 kHz notch
- Otosclerosis: conductive HL, young females
- Acoustic neuroma: unilateral SNHL + tinnitus
- Sudden SNHL: within 72 hours, treat with steroids
- Type B tympanogram = middle ear effusion

Chapter 8: Epistaxis & Nasal Trauma

13 Questions Analyzed

8.1 Anatomy of Epistaxis

Most epistaxis (90%) originates from Kiesselbach's plexus (Little's area) on the anterior nasal septum. Posterior epistaxis arises from Woodruff's plexus or the sphenopalatine artery.

Q1: Kiesselbach's plexus receives branches from all EXCEPT:

✓ Answer: E — Posterior ethmoidal artery

Explanation: Kiesselbach's plexus receives: sphenopalatine artery, greater palatine artery, anterior ethmoidal artery, and superior labial artery. The POSTERIOR ethmoidal artery does NOT supply Kiesselbach's plexus — it supplies the posterior/superior nasal cavity.

Slide: Epistaxis & nasal trauma

[Final 015 & 013]

Q2: Woodruff's plexus receives branches from which vessel?

✓ Answer: A — Sphenopalatine artery

Explanation: Woodruff's plexus (posterior nasal plexus) receives branches from the SPHENOPALATINE artery. It is the most common source of POSTERIOR epistaxis.

Slide: Epistaxis & nasal trauma

[Final 015]

Q3: The most common area of epistaxis is:

✓ Answer: A — Kiesselbach's plexus (Little's area)

Explanation: Kiesselbach's plexus (Little's area) on the anterior nasal septum is the MOST COMMON site of epistaxis. It is easily accessible and vulnerable to trauma (nose picking) and drying.

Slide: Epistaxis & nasal trauma

[Final 011]

Q4: Percentage of bleeding from Kiesselbach's plexus in epistaxis:

✓ Answer: E — 90%

Explanation: 90% of epistaxis originates from Kiesselbach's plexus (anterior epistaxis). Only 10% is posterior. This is why anterior packing controls most cases.

Slide: Epistaxis & nasal trauma

8.2 Management of Epistaxis

Q5: Active anterior right epistaxis in a 60-year-old patient in ED. What is the next step?

✓ Answer: E — Electrocautery of the bleeder

Explanation: If the bleeding point is VISIBLE (anterior epistaxis), ELECTROCAUTERY is first-line. Packing is used when cautery fails or the bleeding point is not identified. Silver nitrate cautery is the standard.

Slide: Epistaxis & nasal trauma

[Final 020]

Q6: One is TRUE about epistaxis in children:

✓ Answer: B — Caused by inflammation and trauma

Explanation: Epistaxis in children is most commonly caused by INFLAMMATION and TRAUMA (nose picking, dry air). Foreign bodies cause unilateral foul discharge, not typically epistaxis. Tumors are rare in children.

Slide: Epistaxis & nasal trauma

Q7: Which statement about POSTERIOR nasal packing is CORRECT?

✓ Answer: C — Need to monitor for apnea, hypoxia or arrhythmias

Explanation: Posterior packing can cause airway obstruction, hypoxia, and cardiac arrhythmias (nasocardiac reflex). Patients with posterior packing require ADMISSION and MONITORING. It CAN be used with anterior packing.

Slide: Epistaxis & nasal trauma

[Final 019]

Q8: True about posterior packing of the nasal cavity:

✓ Answer: A — Posterior packing requires admission & monitoring

Explanation: Posterior packing is NOT first-line (cautery and anterior packing come first). It requires hospital admission for monitoring due to risk of airway compromise, hypoxia, and arrhythmias.

Slide: Epistaxis & nasal trauma

[Final 018]

KEY TEACHING POINTS

Epistaxis management algorithm: (1) Pinch nose + lean forward, (2) Identify bleeding point → silver nitrate cautery, (3) Anterior packing if cautery fails, (4) Posterior packing if anterior fails, (5) Embolization/surgery if packing fails

8.3 Nasal Trauma & Septal Hematoma

Q9: Trauma in a child, the next day the nose is swollen. Most likely diagnosis?

✓ Answer: A — Septal hematoma

Explanation: Septal hematoma is a collection of blood between the perichondrium and cartilage of the nasal septum. It is an EMERGENCY — if not drained, it causes cartilage necrosis → saddle nose deformity.

Slide: Epistaxis & nasal trauma

Q10: Which of the following is WRONG regarding septal hematoma?

✓ Answer: E — Drainage of the hematoma is not necessary if it is small in size

Explanation: ALL septal hematomas require drainage, regardless of size. Untreated hematoma → cartilage necrosis → saddle nose deformity. This is a surgical emergency.

Slide: Epistaxis & nasal trauma

[Final 017]

Q11: All of the following are true about nasal trauma EXCEPT:

✓ Answer: A & B (both are wrong per slides)

Explanation: Per slides: Reduction should be done within 1-2 hours (not 6 hours). If patient presents after 1 week, do reduction within 14 days — do NOT wait 3-6 weeks. Delayed reduction beyond 14 days is difficult due to callus formation.

Slide: Epistaxis & nasal trauma

[Final 011]

Q12: A case of nasal trauma that developed redness and swelling in the nose. Most probably the cause is:

✓ Answer: C — Septal hematoma

Explanation: Post-traumatic nasal swelling with redness suggests septal hematoma. This must be differentiated from simple edema. Bilateral boggy swelling suggests septal hematoma until proven otherwise.

Slide: Epistaxis & nasal trauma

Q13: In the management of a case of nasal fracture after trauma, one of the following is FALSE:

✓ Answer: A — Correct it after three weeks

Explanation: Nasal fracture reduction should be done EARLY (within 1-2 hours, or up to 14 days). Waiting 3 weeks is too late — callus formation makes reduction difficult. Ice packs and elevation are initial management.

Slide: Epistaxis & nasal trauma

MUST MEMORIZE

Epistaxis Must-Knows:

- 90% of epistaxis = Kiesselbach's plexus (anterior septum)
- Kiesselbach's plexus: sphenopalatine + greater palatine + anterior ethmoidal + superior labial
- Posterior ethmoidal artery does NOT supply Kiesselbach's
- Woodruff's plexus = sphenopalatine artery (posterior epistaxis)
- First-line for visible anterior bleed: ELECTROCAUTERY
- Posterior packing: requires admission + monitoring (apnea risk)
- Septal hematoma: EMERGENCY → drain ALL (any size) → prevent saddle nose
- Nasal fracture reduction: within 1-2 hours, or up to 14 days

Chapter 9: Acute & Chronic Rhinosinusitis

44 Questions Analyzed

9.1 Rhinitis — Types & Diagnosis

Rhinitis is inflammation of the nasal mucosa. It is classified as allergic, non-allergic (vasomotor), infectious, atrophic, and medicamentosa. Each has distinct features and management.

Q1: The most common cause of perennial allergy (in Jordan):

✓ Answer: C — Dust mite

Explanation: Dust mite (Dermatophagoides) is the most common cause of PERENNIAL allergic rhinitis worldwide and in Jordan. It thrives in warm, humid environments and is found in bedding, carpets, and upholstery.

Slide: Acute Rhinosinusitis

[Final 012]

Q2: How is vasomotor rhinitis diagnosed?

✓ Answer: E — By exclusion of other causes

Explanation: Vasomotor rhinitis is a DIAGNOSIS OF EXCLUSION. It is non-allergic rhinitis with no identifiable allergen. Skin prick test is negative. It is triggered by temperature changes, odors, and irritants.

Slide: Acute Rhinosinusitis

[Final 013]

Q3: A 40-year-old man with UNILATERAL nasal obstruction and rhinorrhea. Next step?

✓ Answer: B — CT of the sinuses

Explanation: Unilateral nasal obstruction in an adult raises suspicion for tumor, polyp, or fungal sinusitis. CT of sinuses is the best initial imaging to evaluate the nasal cavity and paranasal sinuses.

Slide: Acute Rhinosinusitis

[Final 020]

Q4: Which is TRUE regarding vasomotor rhinitis?

✓ Answer: D — Has two types: eosinophilic & non-eosinophilic

Explanation: Vasomotor rhinitis has two subtypes: eosinophilic (NARES - non-allergic rhinitis with eosinophilia syndrome) and non-eosinophilic. It is NOT allergic, NOT malignant, and NOT infectious.

Slide: Acute Rhinosinusitis

[Final 017]

Q5: What is the MOST EFFECTIVE treatment for allergic rhinitis?

✓ Answer: E — Avoidance of the allergen

Explanation: Avoidance of the allergen is the MOST EFFECTIVE treatment for allergic rhinitis. Pharmacotherapy (antihistamines, intranasal steroids) is used when avoidance is not possible.

Slide: Acute Rhinosinusitis

[Final 020 & 013]

Q6: A patient with allergic symptoms had a negative skin prick test. What is the interpretation?

✓ Answer: B — The allergen was not present in the test panel

Explanation: A negative skin prick test in a patient with clear allergic symptoms means the specific allergen was likely NOT included in the test panel. The patient may still be allergic to an untested allergen.

Slide: Acute Rhinosinusitis

[Final 018]

9.2 Atrophic Rhinitis

Q7: Regarding atrophic rhinitis, which is NOT true?

✓ Answer: A — The mainstay in surgical treatment is narrowing or closure of the nasal cavities

Explanation: This statement is actually TRUE (Young's operation closes the nasal cavity). The question asks for what is NOT true. Atrophic rhinitis: ozena (foul smell), Klebsiella ozaenae, more common in females, medical treatment with crust removal + lubricants.

Slide: Acute Rhinosinusitis

[Final 015 & 013 & 010]

Q8: In atrophic rhinitis, all are present EXCEPT:

✓ Answer: C — Polyps in the nose

Explanation: Atrophic rhinitis does NOT cause polyps. Features: enlarged nasal cavity (paradoxical obstruction despite wide cavity), crusting, ozena (foul smell), anosmia. Polyps are a separate condition.

Slide: Acute Rhinosinusitis

9.3 Rhinitis Medicamentosa & Infectious Rhinitis

Q9: Most common cause of acute rhinitis:

✓ Answer: C — Common cold

Explanation: The common cold (viral rhinitis) is the most common cause of acute rhinitis. Rhinovirus is the most common causator. It is self-limiting, lasting 7-10 days.

Slide: Acute Rhinosinusitis

Q10: What is the cause of rhinitis medicamentosa?

✓ Answer: D — Overuse of nasal decongestants

Explanation: Rhinitis medicamentosa is caused by OVERUSE of topical nasal decongestants (oxymetazoline, xylometazoline). Prolonged use >5-7 days causes rebound vasoconstriction → severe nasal congestion. Treatment: stop decongestant + intranasal steroids.

Slide: Acute Rhinosinusitis

[Final 013]

Q11: The most common cause of rhinosinusitis is:

✓ Answer: C — Viral rhinitis

Explanation: Viral rhinitis (common cold) is the most common cause of rhinosinusitis. Most cases of acute rhinosinusitis are viral and self-limiting. Bacterial superinfection occurs in 0.5-2% of cases.

Slide: Acute Rhinosinusitis

[Final 011]

9.4 External Nasal Infection

Q12: Which is TRUE about a patient with external nasal infection?

✓ Answer: D — The infection is treated by an antibiotic

Explanation: External nasal infections (furunculosis) are treated with antibiotics. The danger triangle of the face can lead to cavernous sinus thrombosis. Furunculosis is painful and most commonly staphylococcal (not streptococcal).

Slide: Acute Rhinosinusitis

[Final 017]

9.5 Acute Rhinosinusitis

Q13: The most common microorganism causing rhinosinusitis is:

✓ Answer: A — Rhinovirus

Explanation: Rhinovirus is the most common cause of acute rhinosinusitis (viral). Among bacteria: S. pneumoniae, H. influenzae, and M. catarrhalis are the top three.

Slide: Acute Rhinosinusitis

Q14: Which is TRUE about rhinosinusitis complications?

✓ Answer: B — Frontal bone is the most common bone involved in osteomyelitis

Explanation: Frontal bone osteomyelitis is the most common bony complication of sinusitis (especially frontal sinusitis). Pott's puffy tumor = frontal bone osteomyelitis with overlying swelling.

Slide: Acute Rhinosinusitis

[Final 018]

Q15: The most common bacterial cause of acute bacterial rhinosinusitis is:

✓ Answer: B — Streptococcus pneumoniae

Explanation: S. pneumoniae is the #1 bacterial cause of acute bacterial rhinosinusitis, followed by H. influenzae and M. catarrhalis. These three account for >70% of bacterial cases.

Slide: Acute Rhinosinusitis

Q16: First-line antibiotic for acute bacterial rhinosinusitis is:

✓ Answer: B — Amoxicillin-clavulanate

Explanation: Amoxicillin-clavulanate is first-line for acute bacterial rhinosinusitis (covers beta-lactamase producers). Amoxicillin alone is used in mild cases. Duration: 5-7 days (IDSA guidelines).

Slide: Acute Rhinosinusitis

Q17: What is the first-line antibiotic of choice for acute bacterial rhinosinusitis?

✓ Answer: E — Amoxicillin with clavulanic acid

Explanation: Amoxicillin-clavulanate (Augmentin) is first-line. It provides coverage against beta-lactamase producing organisms (H. influenzae, M. catarrhalis) in addition to S. pneumoniae.

Slide: Acute Rhinosinusitis

[Final 014]

Q18: Which statement is NOT true regarding chronic infective rhinosinusitis?

✓ Answer: D — Can present with sneezing or facial pain

Explanation: Sneezing is NOT typical of chronic rhinosinusitis — it is more characteristic of allergic rhinitis. Facial pain is also NOT a typical feature of chronic rhinosinusitis (it's more common in acute sinusitis).

Slide: Chronic Rhinosinusitis

[Final 014]

Q19: One of the following is NOT a diagnostic criterion for chronic rhinosinusitis:

✓ Answer: B — Sneezing

Explanation: Chronic rhinosinusitis diagnostic criteria (≥12 weeks): nasal obstruction, nasal discharge, facial pain/pressure, anosmia/hyposmia. SNEEZING is NOT a criterion — it suggests allergic rhinitis.

Slide: Chronic Rhinosinusitis

[Final 020]

Q20: Presentation of nasal tumor:

✓ Answer: A — Nasal obstruction

Explanation: Nasal obstruction is the most common presenting symptom of nasal tumors. Unilateral progressive nasal obstruction in an adult should raise suspicion for malignancy until proven otherwise.

Slide: Chronic Rhinosinusitis

9.6 Nasal Polyps

Q21: Nasal polyps most commonly originate from:

✓ Answer: A — Anterior ethmoid sinus

Explanation: Nasal polyps most commonly arise from the ANTERIOR ETHMOID sinus. They extend into the middle meatus and nasal cavity. Ethmoidal polyps are usually bilateral.

Slide: Chronic Rhinosinusitis

[Final 011]

Q22: Correct about nasal polyps:

✓ Answer: B — Most are ethmoidal in origin

Explanation: Nasal polyps are most commonly ETHMOIDAL in origin (anterior ethmoid). CF should be excluded in children with polyps. Steroids are effective. Recurrence rate is high.

Slide: Chronic Rhinosinusitis

Q23: Which is WRONG regarding nasal polyp theory?

✓ Answer: B — Chronic infection is the underlying cause

Explanation: Chronic infection is NOT the underlying cause of nasal polyps. The etiology involves allergic inflammation, inflammatory mediator imbalance, and genetic predisposition. Infection may be a secondary factor.

Slide: Chronic Rhinosinusitis

[Final 012]

Q24: Antrochoanal polyps most commonly arise from:

✓ Answer: D — Maxillary sinus

Explanation: Antrochoanal polyps arise from the MAXILLARY sinus. They extend through the maxillary ostium into the nasal cavity and posterior choana. They are usually UNILATERAL (unlike ethmoidal polyps which are bilateral).

Slide: Chronic Rhinosinusitis

[Final 014 & 012]

Q25: Which is WRONG about antrochoanal polyps?

✓ **Answer: C — They can turn into a malignant lesion & bleed easily**

Explanation: Antrochoanal polyps are BENIGN and do NOT turn malignant. They arise from the maxillary sinus, are usually unilateral, and require surgical treatment (Caldwell-Luc or endoscopic).

Slide: Chronic Rhinosinusitis

[Final 017]

Q26: An asthmatic child who has nasal polyps has sensitivity to:

✓ **Answer: D — Aspirin**

Explanation: The triad of asthma + nasal polyps + aspirin sensitivity = Samter's triad (aspirin-exacerbated respiratory disease, AERD). Aspirin desensitification may be used in these patients.

Slide: Chronic Rhinosinusitis

HIGH-YIELD COMPARISON

Ethmoidal vs Antrochoanal Polyps
Ethmoidal: Bilateral, from anterior ethmoid, multiple, associated with allergy/asthma
Antrochoanal: Unilateral, from maxillary sinus, single, young patients, no allergy association

9.7 Sinus Anatomy & Development

Q27: Which sinuses are present at birth?

✓ **Answer: B — Ethmoid and maxillary**

Explanation: The ETHMOID and MAXILLARY sinuses are present at birth (though small). The frontal sinus develops around age 6-8 years. The sphenoid sinus develops around age 3-5 years.

Slide: Acute Rhinosinusitis

Q28: Best view for maxillary sinus is:

✓ **Answer: A — Water's view**

Explanation: Water's view (occipitomental view) is the BEST plain X-ray view for the maxillary sinuses. It shows the maxillary sinuses, orbital floors, and zygomatic arches.

Slide: Acute Rhinosinusitis

Q29: The sinus draining into the SUPERIOR meatus is:

✓ **Answer: A — Posterior ethmoidal sinus**

Explanation: The POSTERIOR ethmoidal sinus drains into the SUPERIOR meatus. The anterior ethmoidal sinus, frontal sinus, and maxillary sinus drain into the MIDDLE meatus (ostiomeatal complex).

Slide: Acute Rhinosinusitis

Q30: Which of the following opens into the INFERIOR meatus?

✓ **Answer: A — Nasolacrimal duct**

Explanation: The NASOLACRIMAL DUCT opens into the INFERIOR meatus. This is why sinusitis/inflammation can cause epiphora (excessive tearing) — the nasolacrimal duct gets blocked.

Slide: Acute Rhinosinusitis

[Final 011]

Q31: The most common sinus infected in children:

✓ **Answer: A — Ethmoid**

Explanation: The ETHMOID sinus is the most commonly infected sinus in children because it is the only well-developed sinus at birth. The frontal and sphenoid sinuses are not yet pneumatized.

Slide: Acute Rhinosinusitis

Q32: In a child of 4 years, the commonest sinus infection occurs in:

✓ **Answer: B — Ethmoidal sinus**

Explanation: The ethmoidal sinus is the most commonly infected sinus in young children (age 4) because it is the only sinus that is well-developed at this age. Frontal and sphenoid sinuses are not yet pneumatized.

Slide: Acute Rhinosinusitis

Q33: Ethmoidal sinusitis is the most common in children because:

✓ **Answer: A — Ethmoidal sinuses are the only developed sinuses till the age of 8 years**

Explanation: The ethmoid sinuses are the only sinuses that are well-developed from birth. The frontal sinus develops around age 6-8, and the sphenoid around age 3-5. This makes ethmoid the most commonly infected in children.

Slide: Acute Rhinosinusitis

9.8 Complications of Sinusitis

Q34: In ethmoiditis, the most common complication in children is:

✓ **Answer: E — Subperiosteal abscess in the orbit**

Explanation: Subperiosteal orbital abscess is the MOST COMMON complication of ethmoid sinusitis in children. The thin lamina papyracea separates the ethmoid sinus from the orbit, making it vulnerable to spread.

Slide: Acute Rhinosinusitis

Q35: A 10-year-old girl with pain between the eyes, frontal headache, nasal discharge, post-nasal drip, and high fever. Provisional diagnosis?

✓ **Answer: C — Acute ethmoidal sinusitis**

Explanation: Acute ethmoidal sinusitis presents with pain between the eyes (interorbital pain), frontal headache, nasal discharge, post-nasal drip, and fever. This is the most common sinusitis in children.

Slide: Acute Rhinosinusitis

[Final 016]

Q36: Acute maxillary sinusitis in children, one of the following is TRUE:

✓ **Answer: B — Localized tenderness over the sinus**

Explanation: Acute maxillary sinusitis presents with localized tenderness over the maxillary area (cheek). In children, ethmoiditis is MORE common than maxillary sinusitis. Dental infection can cause maxillary sinusitis.

Slide: Acute Rhinosinusitis

[Final 020]

Q37: Which is TRUE regarding sinusitis?

✓ **Answer: D — Acute sinusitis usually resolves on its own without treatment**

Explanation: Most cases of acute rhinosinusitis are VIRAL and resolve spontaneously. Antibiotics are only needed for severe or persistent cases (>10 days). Surgery is NOT first-line for acute infection.

Slide: Acute Rhinosinusitis

[Final 017]

Q38: Which is TRUE regarding pain due to acute sinusitis?

✓ **Answer: A — It has a diurnal variation**

Explanation: Sinusitis pain has a DIURNAL (daily) variation. Maxillary sinusitis pain is worse in the afternoon (when the sinus drains poorly in upright position). Frontal sinusitis pain is worse in the morning (accumulated overnight).

Slide: Acute Rhinosinusitis

[Final 016]

Q39: The most common three causative bacterial agents of acute sinusitis are:

✓ **Answer: B — S. pneumoniae, H. influenzae, & M. catarrhalis**

Explanation: The top 3 bacterial causes of acute bacterial rhinosinusitis: (1) Streptococcus pneumoniae, (2) Haemophilus influenzae, (3) Moraxella catarrhalis. These account for >70% of bacterial cases.

Slide: Acute Rhinosinusitis

[Final 016]

Q40: Fungal sinusitis suggests:

✓ **Answer: A — Immunodeficiency**

Explanation: Fungal sinusitis (especially invasive fungal sinusitis) strongly suggests IMMUNODEFICIENCY (diabetes, immunosuppression). Allergic fungal sinusitis can occur in immunocompetent patients. Mucoromycetes in diabetics is a classic association.

Slide: Acute Rhinosinusitis

Q41: Sinusitis complications EXCEPT:

✓ **Answer: B — Temporal lobe abscess**

Explanation: Temporal lobe abscess is NOT a typical complication of sinusitis. Brain abscess from sinusitis is usually FRONTAL (from frontal sinusitis). Other complications: orbital cellulitis, meningitis, osteomyelitis, cavernous sinus thrombosis.

Slide: Acute Rhinosinusitis

Q42: Foul discharge from the nose suggests:

✓ **Answer: A — Foreign body**

Explanation: Unilateral foul-smelling nasal discharge in a child is CLASSIC for nasal foreign body. The foreign body causes local infection and produces a characteristic foul odor.

Slide: Acute Rhinosinusitis

Q43: Most likely diagnosis in a patient with UNILATERAL foul-smelling nasal discharge?

✓ **Answer: D — Foreign body**

Explanation: Unilateral foul-smelling discharge = FOREIGN BODY until proven otherwise (especially in children). This is a classic presentation. Allergic rhinitis and nasal polyps are typically bilateral.

Slide: Acute Rhinosinusitis

[Final 014]

Q44: Which is WRONG regarding Wegener's granulomatosis (Granulomatosis with Polyangiitis)?

✓ **Answer: A — It is not fatal without treatment**

Explanation: Wegener's granulomatosis (GPA) IS FATAL without treatment. It is a vasculitis of small/medium vessels with classic triad: upper respiratory (sinusitis/nasal), lower respiratory (pulmonary), and renal involvement. c-ANCA positive.

Slide: Chronic Rhinosinusitis

[Final 018]

MUST MEMORIZE

Rhinosinusitis Must-Knows:

- #1 cause of perennial allergy: Dust mite
- Vasomotor rhinitis: diagnosis of exclusion
- Most effective treatment for allergic rhinitis: Allergen avoidance
- Rhinitis medicamentosa: overuse of nasal decongestants
- #1 cause of acute rhinosinusitis: Viral (Rhinovirus)
- Top 3 bacteria: S. pneumoniae, H. influenzae, M. catarrhalis
- First-line antibiotic: Amoxicillin-clavulanate
- Nasal polyps: most common origin = anterior ethmoid
- Antrochoanal polyp: maxillary sinus, unilateral
- Samter's triad: Asthma + Nasal polyps + Aspirin sensitivity
- Sinuses present at birth: Ethmoid + Maxillary
- #1 sinus infected in children: Ethmoid
- #1 complication of ethmoiditis in children: Subperiosteal orbital abscess
- Unilateral foul discharge = Foreign body
- Sinusitis pain: diurnal variation
- Wegener's (GPA): FATAL without treatment, c-ANCA, small/medium vessels

Chapter 10: Adeno-Tonsillar Disease

26 Questions Analyzed

10.1 Adenoids

Adenoids (pharyngeal tonsils) are lymphoid tissue in the nasopharynx. They are part of Waldeyer's ring. They produce immunoglobulins (IgA, IgG, IgM, IgD) and grow until age 5-7, then involute.

Q1: All of the following are true about adenoids EXCEPT:

✓ Answer: E — They are well-developed by the age of 1 year

Explanation: Adenoids are NOT well-developed by age 1. They grow progressively until age 5-7 years, then involute during puberty. They do produce all immunoglobulins (IgA, IgG, IgM, IgD).

Slide: Common adeno-tonsillar disease

[Final 017]

Q2: Which muscle makes up the POSTERIOR pillar of the pharynx?

✓ Answer: B — Palatopharyngeus muscle

Explanation: The posterior pillar (posterior faucial pillar/palatopharyngeal arch) is formed by the PALATOPHARYNGEUS muscle. The anterior pillar is formed by the palatoglossus muscle.

Slide: Common adeno-tonsillar disease

[Final 012]

Q3: Velopharynx is found in:

✓ Answer: B — Hypernasality

Explanation: Velopharyngeal insufficiency (failure of the velopharynx to close during speech) causes HYPERNASALITY. This occurs after adenoidectomy if the adenoids were compensating for a submucous cleft palate.

Slide: Common adeno-tonsillar disease

Q4: What antibiotic is recommended for the treatment of acute bacterial tonsillitis?

✓ Answer: A — Penicillin

Explanation: Penicillin is the FIRST-LINE antibiotic for acute bacterial tonsillitis caused by Group A beta-hemolytic streptococcus (GABHS). It is effective, narrow-spectrum, and inexpensive. Duration: 10 days.

Slide: Common adeno-tonsillar disease

[Final 014]

Q5: The most common cause of bacterial tonsillitis:

✓ Answer: B — Group A beta-hemolytic streptococcus (GABHS)

Explanation: GABHS (Streptococcus pyogenes) is the most common BACTERIAL cause of tonsillitis. However, most cases of acute tonsillitis overall are VIRAL.

Slide: Common adeno-tonsillar disease

[Final 020]

Q6: In a patient with scarlet fever, you will find on physical examination:

✓ **Answer: B — Strawberry tongue and sandpaper rash**

Explanation: Scarlet fever (caused by GABHS) presents with: strawberry tongue, sandpaper rash, pharyngitis, and circumoral pallor. Koplik spots are for measles. Hepatosplenomegaly suggests mononucleosis.

Slide: Common adeno-tonsillar disease

[Final 020]

10.2 Acute Tonsillitis & Differential Diagnosis

Q7: A boy 10 years old with nasal obstruction, mouth breathing, snoring at night, and thick yellowish nasal discharge. Diagnosis?

✓ **Answer: C — Adenoiditis**

Explanation: Adenoid hypertrophy/adenoiditis presents with: nasal obstruction, mouth breathing, snoring, and nasal discharge in children. This is the classic presentation of adenoid enlargement.

Slide: Common adeno-tonsillar disease

Q8: A patient with membranous tonsillitis, not improving on antibiotics, with hepatomegaly and splenomegaly. Most likely diagnosis?

✓ **Answer: B — Infectious mononucleosis**

Explanation: Infectious mononucleosis (EBV) presents with: membranous tonsillitis, hepatosplenomegaly, lymphadenopathy, and NO response to antibiotics. Heterophile antibody test (Monospot) is positive.

Slide: Common adeno-tonsillar disease

[Final 014]

Q9: A patient with tonsillitis, not improving on antibiotics, with rash and hepatosplenomegaly. Diagnosis?

✓ **Answer: A — Infectious mononucleosis**

Explanation: Key features of mono: tonsillitis not responding to antibiotics + rash (especially if amoxicillin given → maculopapular rash) + hepatosplenomegaly + lymphadenopathy.

Slide: Common adeno-tonsillar disease

[Final 019]

Q10: A child with high fever, sore throat, and 'strawberry tongue'. Tonsils swollen and red. Most likely diagnosis?

✓ **Answer: B — Scarlet fever**

Explanation: Scarlet fever presents with: strawberry tongue, sandpaper rash, pharyngitis, and circumoral pallor. It is caused by GABHS producing erythrogenic toxin.

Slide: Common adeno-tonsillar disease

[Final 018]

Q11: The differential diagnosis of acute follicular tonsillitis includes all EXCEPT:

✓ **Answer: D — Sarcoidosis**

Explanation: Sarcoidosis is NOT in the differential of acute follicular tonsillitis. The differential includes: infectious mononucleosis, diphtheria, Vincent's angina, and acute leukemia (due to lymphoid proliferation).

Slide: Common adeno-tonsillar disease

[Final 015 & 010]

Q12: Chronic pharyngitis, which is WRONG?

✓ **Answer: A — It is indicated to remove the tonsils**

Explanation: Tonsillectomy is NOT indicated for chronic pharyngitis. Chronic pharyngitis is caused by GERD, smoking, and environmental irritants. The posterior pharynx may show nodular lymphoid hyperplasia (cobblestone appearance).

Slide: Common adeno-tonsillar disease

Q13: What is TRUE about tonsillitis?

✓ **Answer: A — Most common cause of tonsillitis is viral**

Explanation: The majority of acute tonsillitis cases are VIRAL (rhinovirus, adenovirus, EBV, etc.). GABHS is the most common BACTERIAL cause, but viral is #1 overall.

Slide: Common adeno-tonsillar disease

10.3 Specific Infections — Diphtheria & Pharyngitis

Q14: Which is TRUE about diphtheria?

✓ **Answer: D — It is caused by the bacteria C. diphtheriae**

Explanation: Diphtheria is caused by Corynebacterium diphtheriae (bacterium). It primarily affects the pharynx/nasopharynx (NOT lungs). It requires both antitoxin AND antibiotics. Transmission is respiratory droplets.

Slide: Common adeno-tonsillar disease

[Final 013]

Q15: Which is WRONG regarding pharyngitis?

✓ **Answer: B — Antibiotics decrease the risk of PSGN by 50%**

Explanation: Antibiotics for GABHS pharyngitis do NOT decrease the risk of post-streptococcal glomerulonephritis (PSGN). They DO decrease the risk of rheumatic fever. Most viral pharyngitis recovers in 3-4 days.

Slide: Common adeno-tonsillar disease

[Final 012]

Q16: All are true about non-specific pharyngitis EXCEPT:

✓ **Answer: B — Indicated to do tonsillectomy**

Explanation: Tonsillectomy is NOT indicated for non-specific/chronic pharyngitis. Causes include: smoking, GERD, environmental irritants. Cobblestone appearance of posterior pharynx is characteristic.

Slide: Common adeno-tonsillar disease

[Final 012 & 011]

Q17: Which is TRUE about acute tonsillitis?

✓ **Answer: A — The most common cause is viral infection**

Explanation: Most acute tonsillitis is viral. Alpha-hemolytic strep (viridans streptococci) is part of normal flora and does NOT cause tonsillitis. GABHS (beta-hemolytic) is the most common bacterial cause.

Slide: Common adeno-tonsillar disease

[Final 011]

10.4 Peritonsillar Abscess (Quinsy)

Q18: True about peritonsillar abscess:

✓ **Answer: A — Treated mainly by excision and drainage**

Explanation: Peritonsillar abscess (PTA) is the most common deep neck space infection. Treatment: incision and drainage OR needle aspiration + IV antibiotics. It presents with trismus, uvular deviation, and 'hot potato' voice.

Slide: Common adeno-tonsillar disease

Q19: Quinsy is:

✓ **Answer: A — Peritonsillar abscess**

Explanation: Quinsy = peritonsillar abscess. It is an abscess between the tonsillar capsule and the superior constrictor muscle. It is a complication of acute tonsillitis.

Slide: Common adeno-tonsillar disease

Q20: The treatment of a MATURE uncomplicated peritonsillar abscess is:

✓ **Answer: B — Incision, evacuation, and systemic antibiotics**

Explanation: Mature PTA requires incision AND evacuation of pus PLUS systemic antibiotics. Antibiotics alone are insufficient. Emergency tonsillectomy (quinsy tonsillectomy) is reserved for recurrent cases.

Slide: Common adeno-tonsillar disease

[Final 019]

Q21: Treatment of parapharyngeal abscess:

✓ **Answer: A — External drainage and antibiotics**

Explanation: Parapharyngeal abscess requires EXTERNAL (cervical) drainage and antibiotics. It cannot be adequately drained intra-orally due to proximity to carotid sheath.

Slide: Common adeno-tonsillar disease

10.5 Tonsillectomy & Adenoidectomy — Indications & Complications

Q22: One of these is the cause of STRICT indications for tonsillectomy in children:

✓ **Answer: A — High risk of post-op bleeding**

Explanation: Tonsillectomy has strict indications because of the risk of POST-OPERATIVE HEMORRHAGE. This is why the criteria are strict — the complication can be life-threatening.

Slide: Common adeno-tonsillar disease

[Final 019]

Q23: Repeated infections are an indication for tonsillectomy when:

✓ **Answer: C — 7 episodes in 1 year, 5/year for 2 years, or 3/year for 3 years**

Explanation: Paradise criteria for tonsillectomy: ≥7 episodes in 1 year, ≥5/year for 2 years, or ≥3/year for 3 years. These are the evidence-based criteria.

Slide: Common adeno-tonsillar disease

Q24: All are indications of tonsillectomy EXCEPT:

✓ **Answer: C — Recurrent ear infection**

Explanation: Recurrent ear infection is NOT an indication for tonsillectomy. Indications include: chronic tonsillitis, peritonsillar abscess, obstructive sleep apnea (hypertrophy), and suspected malignancy.

Slide: Common adeno-tonsillar disease

Q25: NOT an indication for adenoidectomy?

✓ **Answer: A — Presence of cleft palate**

Explanation: Cleft palate is a CONTRAINDICATION for adenoidectomy because it can cause velopharyngeal insufficiency and hypernasal speech. Other indications: sleep apnea, nasal obstruction, OME.

Slide: Common adeno-tonsillar disease

[Final 018]

Q26: All are early complications of tonsillectomy EXCEPT:

✓ **Answer: D — Secondary bleeding**

Explanation: Secondary bleeding (occurring 5-10 days post-op) is a LATE complication. Early complications include: primary bleeding (within 24 hours), dental damage, TMJ dislocation, and uvular injury.

Slide: Common adeno-tonsillar disease

[Final 017]

MUST MEMORIZE

Adeno-Tonsillar Must-Knows:

- Adenoids: produce IgA/IgG/IgM/IgD, grow until age 5-7, NOT well-developed at age 1
- Posterior pillar = palatopharyngeus muscle
- #1 cause of tonsillitis overall: VIRAL
- #1 bacterial cause: Group A beta-hemolytic streptococcus (GABHS)
- First-line antibiotic: Penicillin (10 days)
- Scarlet fever: strawberry tongue + sandpaper rash (GABHS)
- Mono: membranous tonsillitis + hepatosplenomegaly + rash with ampicillin
- Diphtheria: C. diphtheriae (bacterium), needs antitoxin + antibiotics
- Quinsy = peritonsillar abscess → incision & drainage + antibiotics
- Tonsillectomy criteria: ≥7/yr, ≥5/yr×2, or ≥3/yr×3 (Paradise criteria)
- Cleft palate = contraindication for adenoidectomy
- Secondary bleeding = late complication (5-10 days)

Chapter 11: Stridor & Tracheostomy

21 Questions Analyzed

11.1 Causes & Types of Stridor

Stridor is a high-pitched sound caused by turbulent airflow through a partially obstructed airway. Inspiratory stridor = extrathoracic obstruction. Expiratory = intrathoracic. Biphasic = fixed obstruction.

Q1: All are causes of congenital stridor EXCEPT:

✓ Answer: A — Epiglottitis

Explanation: Epiglottitis is an ACQUIRED condition (usually bacterial in children), NOT congenital. Congenital causes of stridor include: laryngomalacia (#1 cause), laryngeal webs, vocal cord paralysis, subglottic stenosis, subglottic hemangioma.

Slide: Stridor

[Final 017]

Q2: Which of the following causes BIPHASIC stridor?

✓ Answer: A — Laryngeal web

Explanation: Laryngeal web causes BIPHASIC stridor because it is a FIXED obstruction (affects both inspiration and expiration). Laryngomalacia and croup cause INSPIRATORY stridor (extrathoracic).

Slide: Stridor

[Final 012]

Q3: What is the imaging of choice for laryngocele?

✓ Answer: B — CT scan

Explanation: CT scan is the imaging of choice for laryngocele. It clearly shows the air-filled sac and its relationship to the larynx and surrounding structures.

Slide: Stridor

[Final 013]

Q4: A child with Omega-shaped epiglottis and stridor. Most likely diagnosis?

✓ Answer: A — Laryngomalacia

Explanation: Omega-shaped epiglottis (floppy, curled epiglottis) is pathognomonic for LARYNGOMALACIA. This is the #1 cause of stridor in infants. The epiglottis collapses inward during inspiration.

Slide: Stridor

[Final 014]

Q5: Which of the following will NOT lead to stridor?

✓ Answer: D — All of the above cause stridor

Explanation: All listed conditions CAN cause stridor. The question is tricky — it asks which will NOT lead, and the answer is that ALL of them can cause stridor.

Slide: Stridor

Q6: Most common cause of infant stridor:

✓ **Answer: A — Laryngomalacia**

Explanation: Laryngomalacia is the #1 cause of stridor in infants (60% of cases). It is due to immature, floppy laryngeal cartilage that collapses during inspiration. Most cases resolve spontaneously by age 18-24 months.

Slide: Stridor

Q7: Regarding stridor, all are correct EXCEPT:

✓ **Answer: A — Stridor laryngismus is associated with pyrexia**

Explanation: Stridor laryngismus (spasmodic croup) is NOT typically associated with fever. It is caused by allergic/edematous inflammation, NOT infection. Laryngomalacia has a good prognosis (resolves spontaneously).

Slide: Stridor

11.2 Specific Clinical Scenarios

Q8: A newborn baby with weak cry and hoarseness. Most probable diagnosis?

✓ **Answer: A — Vocal cord palsy**

Explanation: Weak cry and hoarseness in a newborn suggests VOCAL CORD PALSY (unilateral or bilateral). This can occur from birth trauma, cardiac surgery, or neurologic conditions. Laryngomalacia causes stridor but the cry is usually normal.

Slide: Stridor

[Final 016]

Q9: The most common cause of UNILATERAL vocal cord paralysis is:

✓ **Answer: D — Thyroid surgery**

Explanation: Thyroid surgery is the #1 cause of unilateral vocal cord paralysis (recurrent laryngeal nerve injury). Other causes: lung cancer, esophageal cancer, cardiac surgery, and idiopathic.

Slide: Stridor

[Final 013]

Q10: The most common cause for vocal cord paralysis overall is:

✓ **Answer: B — Surgical trauma**

Explanation: Surgical trauma (especially thyroid surgery) is the most common cause of vocal cord paralysis. Malignancy (lung cancer, thyroid cancer, esophageal cancer) is the second most common cause.

Slide: Stridor

Q11: One of the following will cause BILATERAL vocal cord paralysis:

✓ **Answer: C — Carcinoma upper esophagus**

Explanation: Carcinoma of the upper esophagus can damage BOTH recurrent laryngeal nerves, causing bilateral vocal cord paralysis. This causes stridor (adducted cords) and requires tracheostomy.

Slide: Stridor

Q12: An infant with inspiratory stridor suggests a lesion in the:

✓ **Answer: A — Glottic or supraglottic**

Explanation: INSPIRATORY stridor = EXTRATHORACIC (above thoracic inlet) obstruction = glottic or supraglottic lesion. Expiratory stridor = intrathoracic/tracheal lesion. Biphasic = subglottic/fixed lesion.

Slide: Stridor

Q13: A child with fever, stridor, and dysphagia. Most likely diagnosis?

✓ Answer: B — Acute epiglottitis

Explanation: The triad of fever + stridor + dysphagia = acute epiglottitis. The child typically appears toxic, sits in the sniffing position, and drools. DO NOT examine the throat (risk of complete obstruction).

Slide: Stridor

Q14: A child with acute onset cyanosis and respiratory distress. Diagnosis?

✓ Answer: A — Foreign body aspiration

Explanation: Acute onset cyanosis and respiratory distress in a previously well child = FOREIGN BODY ASPIRATION until proven otherwise. It is a life-threatening emergency requiring immediate intervention (Heimlich/back blows/bronchoscopy).

Slide: Stridor

KEY TEACHING POINTS

Stridor localization: Inspiratory = supraglottic/glottic, Expiratory = tracheal/bronchial, Biphasic = fixed/subglottic

11.3 Laryngeal Trauma & Croup (Laryngotracheobronchitis)

Q15: About laryngeal trauma, which is TRUE?

✓ Answer: A — Priority is to secure airway

Explanation: In laryngeal trauma, the FIRST priority is securing the airway. Laryngeal trauma is NOT common, and the cartilage framework CAN fracture (thyroid cartilage fracture is the most common).

Slide: Stridor

Q16: Concerning treatment of acute laryngotracheobronchitis (croup), one is FALSE:

✓ Answer: C — Antibiotic

Explanation: Croup (laryngotracheobronchitis) is caused by VIRAL infection (parainfluenza virus). Antibiotics are NOT indicated. Treatment: oxygen, corticosteroids (dexamethasone), humidification, and nebulized epinephrine for severe cases. Sedation is contraindicated.

Slide: Stridor

[Final 015 & 013 & 010]

Q17: Which is NOT part of the management of MILD stridor?

✓ Answer: C — Tracheostomy

Explanation: Tracheostomy is NOT part of mild stridor management. Mild stridor is managed with observation, oxygen, bronchodilators, and steroids. Tracheostomy is reserved for severe, progressive airway obstruction.

Slide: Stridor

[Final 013]

11.4 Ludwig's Angina

Q18: Which is TRUE about Ludwig's angina?

✓ Answer: D — It is a potentially life-threatening condition & may require tracheostomy

Explanation: Ludwig's angina is a rapidly spreading cellulitis of the submandibular and sublingual spaces. It is NOT viral or fungal — it is bacterial (usually mixed oral flora). It can cause airway obstruction requiring tracheostomy. Treatment: IV antibiotics + surgical drainage.

Slide: Stridor

[Final 013]

11.5 Tracheostomy — Indications & Contraindications

Q19: NOT an indication for tracheostomy:

✓ Answer: A — Severe upper lung atelectasis

Explanation: Severe upper lung atelectasis is NOT an indication for tracheostomy. Tracheostomy is for UPPER airway obstruction. Atelectasis is a lower airway/lung parenchyma problem.

Slide: Stridor

Q20: Tracheostomy is done for all of the following EXCEPT:

✓ Answer: C — Unilateral paralysis of the vocal cords

Explanation: Unilateral vocal cord paralysis does NOT require tracheostomy (the other cord compensates). BILATERAL abductor paralysis causes stridor and requires tracheostomy. Laryngeal tumors and aspiration from pharyngeal paralysis are indications.

Slide: Stridor

Q21: Tracheostomy is done in all EXCEPT:

✓ Answer: A — Unilateral recurrent laryngeal nerve affection

Explanation: Unilateral recurrent laryngeal nerve palsy does NOT require tracheostomy. The contralateral cord compensates. Bilateral involvement would require tracheostomy.

Slide: Stridor

MUST MEMORIZE

Stridor Must-Knows:
- #1 cause of infant stridor: Laryngomalacia (resolves by 18-24 months)
- Omega-shaped epiglottis = Laryngomalacia
- Inspiratory stridor = extrathoracic (glottic/supraglottic)
- Biphasic stridor = fixed obstruction (laryngeal web)
- Epiglottitis: fever + stridor + dysphagia, DO NOT examine throat
- Croup: viral (parainfluenza), dexamethasone, NO antibiotics
- Acute cyanosis in child = Foreign body aspiration
- #1 cause of unilateral vocal cord palsy: Thyroid surgery
- Bilateral vocal cord palsy → tracheostomy
- Ludwig's angina: submandibular cellulitis, life-threatening, may need tracheostomy
- Laryngeal trauma: secure airway first
- Tracheostomy NOT indicated for: unilateral vocal cord palsy, lung atelectasis

Chapter 12: Neck Masses

9 Questions Analyzed

12.1 Congenital Neck Masses

Neck masses are classified as congenital, inflammatory, or neoplastic. Midline: thyroglossal duct cyst, dermoid, thyroid. Lateral: branchial cleft cyst, cystic hygroma, carotid body tumor.

Q1: The most common congenital neck mass is:

✓ **Answer: E — Thyroglossal duct cyst**

Explanation: Thyroglossal duct cyst is the #1 congenital neck mass. Midline, moves with swallowing and tongue protrusion.

Slide: Neck masses

[Final 015]

Q2: Swelling of the midline of the neck could be due to all EXCEPT:

✓ **Answer: D — Branchial cyst**

Explanation: Branchial cleft cysts are LATERAL neck masses, NOT midline.

Slide: Neck masses

[Final 015]

Q3: Which is TRUE about dermoid cyst?

✓ **Answer: E — Movable from side to side**

Explanation: Dermoid cysts are midline, non-tender, and movable laterally.

Slide: Neck masses

[Final 015]

Q4: Which is NOT a median neck mass?

✓ **Answer: D — Branchial cleft cyst**

Explanation: Branchial cleft cysts are LATERAL. All others are midline.

Slide: Neck masses

[Final 013 & 012 & 011]

Q5: Carotid body tumor — which is WRONG?

✓ **Answer: B — We must do biopsy for diagnosis**

Explanation: Carotid body tumor is HIGHLY vascular. BIOPSY IS CONTRAINDICATED (risk of severe bleeding). Diagnosis by imaging.

Slide: Neck masses

Q6: Malignant parotid gland tumor with the BEST prognosis is:

✓ **Answer: C — Mucoepidermoid carcinoma**

Explanation: Mucoepidermoid carcinoma (low-grade) has the BEST prognosis among malignant parotid tumors.

Slide: Neck masses

Q7: A 10-year-old boy with recurrent intractable epistaxis. Most important to rule out:

✓ Answer: A — Angiofibroma

Explanation: Juvenile nasopharyngeal angiofibroma (JNA) in adolescent males: recurrent epistaxis + nasal obstruction.

Slide: Neck masses

Q8: Diagnosis of nasopharyngeal angiofibroma is best done by:

✓ Answer: B — CT scan

Explanation: CT scan is imaging of choice for JNA. Biopsy is contraindicated (severe bleeding risk).

Slide: Neck masses

Q9: The treatment of choice for angiofibroma:

✓ Answer: C — Surgery

Explanation: Surgery is treatment of choice for JNA. Pre-operative embolization reduces bleeding.

Slide: Neck masses

HIGH-YIELD COMPARISON

Neck Masses Summary
Midline: Thyroglossal duct cyst (#1 congenital), Dermoid, Thyroid
Lateral: Branchial cleft cyst, Cystic hygroma, Carotid body tumor
JNA: Adolescent male + epistaxis, CT dx, Surgery tx, NO biopsy

MUST MEMORIZE

Neck Masses Must-Knows:
• #1 congenital neck mass: Thyroglossal duct cyst
• Branchial cyst = LATERAL (not midline)
• Carotid body tumor: NO biopsy (highly vascular)
• JNA: adolescent male, CT diagnosis, Surgery treatment
• Best prognosis malignant parotid: Mucoepidermoid carcinoma

Chapter 13: Head & Neck Oncology

41 Questions Analyzed

13.1 Nasopharyngeal Carcinoma (NPC)

NPC is strongly associated with EBV. The most common presenting symptom is cervical lymphadenopathy (neck mass). Most common site: Rosenmuller fossa.

Q1: What is the MOST COMMON presenting symptom of nasopharyngeal carcinoma?

✓ Answer: D — Neck mass or cervical lymphadenopathy

Explanation: Neck mass is the #1 presenting symptom of NPC. The nasopharynx has rich lymphatic drainage → early cervical node metastasis.

Slide: Head & Neck

[Final 020 & 013 & 012 & 011]

Q2: What is the FIRST presentation of nasopharyngeal carcinoma?

✓ Answer: D — Neck mass (cervical lymphadenopathy)

Explanation: NPC often presents with painless neck mass as first symptom. The primary tumor may be asymptomatic initially.

Slide: Head & Neck

[Final 019 & 018 & 013]

Q3: The most common cranial nerve palsy associated with NPC is:

✓ Answer: B — Abducens nerve (CN VI)

Explanation: CN VI passes through Dorello's canal near petrous apex, vulnerable to NPC invasion. Causes diplopia.

Slide: Head & Neck

[Final 018]

Q4: The most common site of nasopharyngeal carcinoma is:

✓ Answer: A — Rosenmuller fossa

Explanation: Rosenmuller fossa (pharyngeal recess) is the MOST COMMON site of NPC.

Slide: Head & Neck

[Final 015]

Q5: Rosenmuller fossa is the most common site for:

✓ Answer: D — Nasopharyngeal carcinoma

Explanation: Rosenmuller fossa = most common site of NPC. High-yield anatomical landmark.

Slide: Head & Neck

[Final 012]

Q6: A 66-year-old man with 2-month history of neck swelling in the RIGHT POSTERIOR TRIANGLE with RIGHT hearing loss. Likely diagnosis?

✓ **Answer: C — Metastatic lymph node from NPC**

Explanation: Posterior triangle neck mass + ipsilateral hearing loss = metastatic NPC until proven otherwise.

Slide: Head & Neck

[Final 017 & 016]

Q7: A patient who received radiation to the nasopharynx and neck years ago may develop:

✓ **Answer: D — Thyroid carcinoma**

Explanation: Radiation to neck is a risk factor for thyroid carcinoma. Secondary malignancy is a known late complication.

Slide: Head & Neck

Q8: The first presentation of nasopharyngeal cancer could be:

✓ **Answer: C — Secretory otitis media**

Explanation: NPC can present with unilateral OME due to Eustachian tube obstruction. Unilateral OME in adult = suspect NPC.

Slide: Head & Neck

Q9: A 50-year-old male with hard left neck mass, left bloody nasal discharge, left nasal obstruction, and left ear blockage. Diagnosis?

✓ **Answer: C — Carcinoma of the post-nasal space (NPC)**

Explanation: Unilateral neck mass + bloody nasal discharge + nasal obstruction + ear blockage in middle-aged male = classic NPC.

Slide: Head & Neck

Q10: Unilateral OME in adults raises suspicion of:

✓ **Answer: D — Nasopharyngeal carcinoma**

Explanation: Unilateral OME in an adult is a RED FLAG for NPC until proven otherwise.

Slide: Head & Neck

[Final 014]

KEY TEACHING POINTS

NPC: #1 presentation = Neck mass, #1 site = Rosenmuller fossa, #1 CN palsy = CN VI, Unilateral OME in adult = suspect NPC

13.2 Pharyngeal & Laryngeal Tumors

Q11: True about pharyngeal tumors:

✓ **Answer: B — Usual treatment is radiotherapy**

Explanation: NPC is treated with RADIOTHERAPY (radiosensitive, deep location). Surgery for residual/recurrent disease.

Slide: Head & Neck

Q12: Nasopharyngeal cancer, all EXCEPT:

✓ **Answer: B — Nasal blockage and epistaxis are NOT the earliest manifestations**

Explanation: Earliest manifestation = cervical lymph node enlargement. Nasal symptoms appear later.

Slide: Head & Neck

Q13: Most common cancer that metastasizes to cervical lymph nodes:

✓ **Answer: A — Nasopharyngeal carcinoma**

Explanation: NPC is #1 cancer metastasizing to cervical lymph nodes due to rich lymphatic drainage.

Slide: Head & Neck

Q14: The most common primary malignant tumor of the neck is:

✓ **Answer: C — Squamous cell carcinoma**

Explanation: SCC is the most common primary malignant tumor of the neck.

Slide: Head & Neck

[Final 013 & 010]

Q15: Which is NOT a hidden primary tumor of SCC of head and neck?

✓ **Answer: B — Vocal cords**

Explanation: Vocal cord tumors are NOT hidden — they present EARLY with hoarseness.

Slide: Head & Neck

[Final 020]

Q16: Which is NOT a hidden primary location for head & neck SCC?

✓ **Answer: B — Vocal cords**

Explanation: Vocal cords present early with hoarseness. Hidden: base of tongue, pyriform fossa, supraglottic larynx.

Slide: Head & Neck

[Final 019]

Q17: FNA of neck mass shows metastatic SCC. Most appropriate next step?

✓ **Answer: A — Pan-endoscopy to find the primary tumor**

Explanation: When FNA shows metastatic SCC, next step is PAN-ENDoscopy to identify the primary tumor.

Slide: Head & Neck

[Final 019]

13.3 Laryngeal Tumors

Q18: Most common malignant tumor of the larynx is:

✓ **Answer: B — Squamous cell carcinoma**

Explanation: SCC accounts for >95% of laryngeal malignancies. Risk factors: smoking, alcohol.

Slide: Head & Neck

Q19: Which laryngeal subsite has the BEST prognosis?

✓ **Answer: B — Glottis (vocal cords)**

Explanation: Glottic tumors have BEST prognosis: early hoarseness, sparse lymphatic drainage, low nodal metastasis.

Slide: Head & Neck

Q20: Glottic carcinoma most commonly presents with:

✓ **Answer: B — Hoarseness**

Explanation: Hoarseness is the EARLY and most common symptom of glottic carcinoma.

Slide: Head & Neck

Q21: Laryngeal tumors — all are true EXCEPT:

✓ **Answer: C — Vocal cord tumors commonly have deep cervical lymph nodes**

Explanation: Vocal cord (glottic) tumors RARELY have cervical lymph node metastasis (sparse lymphatics).

Slide: Head & Neck

Q22: Which is NOT true about laryngeal tumors?

✓ **Answer: B — Diagnosis is by direct laryngoscopy**

Explanation: Direct laryngoscopy IS used for diagnosis. The question may test that biopsy is needed for definitive diagnosis.

Slide: Head & Neck

Q23: Singer's node is present in:

✓ **Answer: A — Vocal cords**

Explanation: Singer's node (vocal cord nodule) is on the VOCAL CORDS at junction of anterior 1/3 and posterior 2/3.

Slide: Head & Neck

Q24: Which tumor is most likely to present EARLY?

✓ **Answer: B — Vocal cord**

Explanation: Vocal cord tumors present EARLY with hoarseness. Vallecular and Rosenmuller fossa tumors are hidden.

Slide: Head & Neck

Q25: All of the following tumors could remain silent EXCEPT:

✓ **Answer: A — Vocal cord tumours**

Explanation: Vocal cord tumors CANNOT remain silent — they cause hoarseness early.

Slide: Head & Neck

[Final 012 & 011]

Q26: Best prognosis tumor:

✓ **Answer: B — Glottic (vocal cord) carcinoma**

Explanation: Glottic carcinoma has BEST prognosis: early hoarseness, low nodal metastasis, good radiation response.

Slide: Head & Neck

[Final 012]

Q27: Metastasis to cervical lymph nodes is most commonly from:

✓ **Answer: A — Tonsils**

Explanation: Tonsillar carcinoma commonly metastasizes to cervical lymph nodes.

Slide: Head & Neck

[Final 013]

Q28: Most common oral cavity tumor site:

✓ **Answer: C — Base of tongue**

Explanation: Base of tongue is the most common site for oral cavity/oropharyngeal tumors.

Slide: Head & Neck

Q29: Early tumor of pyriform fossa will give rise to:

✓ **Answer: D — Referred otalgia**

Explanation: Early pyriform fossa tumor causes REFERRED OTALGIA (via CN X). Hoarseness and dysphagia are LATE symptoms.

Slide: Head & Neck

13.4 Other Head & Neck Topics

Q30: A cautionary measure in management of a mass in the foramen caecum is:

✓ **Answer: E — Request thyroid scan**

Explanation: Mass at foramen caecum could be ectopic thyroid. Thyroid scan BEFORE biopsy/removal to ensure normal thyroid exists.

Slide: Head & Neck

Q31: A 60-year-old with regurgitation of food. Diagnosis?

✓ **Answer: A — Zenker's diverticulum**

Explanation: Zenker's diverticulum: regurgitation of undigested food, halitosis, neck mass. Pulsion diverticulum through Killian's dehiscence.

Slide: Head & Neck

Q32: Foreign body in esophagus — which is CORRECT?

✓ **Answer: B — Mediastinitis is the most fatal complication**

Explanation: Mediastinitis is the most fatal complication of esophageal foreign body. Upper esophagus (cricopharyngeus) is the most common impaction site.

Slide: Head & Neck

Q33: Associated with esophageal reflux EXCEPT:

✓ **Answer: C — Anterior laryngeal not posterior**

Explanation: GERD causes POSTERIOR laryngitis (not anterior). GERD is a risk factor for laryngeal carcinoma.

Slide: Head & Neck

Q34: Advantage of FNA over biopsy:

✓ **Answer: B — Cost (per Dr. Amer) / A — Safety (per guidelines)**

Explanation: FNA is safer, cheaper, simpler, and reliable for initial diagnosis of neck masses.

Slide: Head & Neck

Q35: All about Bell's palsy are true EXCEPT:

✓ **Answer: C — Usual treatment is surgery**

Explanation: Bell's palsy is treated with CORTICOSTEROIDS ± antivirals. Surgery is NOT usual treatment.

Slide: Head & Neck

Q36: The superficial great petrosal nerve contains:

✓ **Answer: A — Secretory preganglionic parasympathetic fibers**

Explanation: Greater petrosal nerve (CN VII branch) carries preganglionic parasympathetic fibers to pterygopalatine ganglion.

Slide: Head & Neck

Q37: What is TRUE about the Eustachian tube (anatomy)?

✓ **Answer: D — Is 2.5 cm in length**

Explanation: Eustachian tube: ~2.5 cm (3.5 cm in adults). Opens in lateral wall of nasopharynx. Tensor veli palatini opens it. Narrower and more horizontal in children.

Slide: Head & Neck

Q38: Treatment of choice for cancer of the SUPERIOR part of the maxillary sinus:

✓ **Answer: D — B + C (Radiotherapy + Total maxillectomy + orbital exenteration)**

Explanation: Superior maxillary sinus cancer requires combined treatment: RT + maxillectomy + orbital exenteration.

Slide: Head & Neck

Q39: Which is the most common site of oral cavity cancer?

✓ **Answer: A — Tongue (lateral border)**

Explanation: Lateral border of tongue is the most common site of oral cavity SCC.

Slide: Head & Neck

Q40: The most common salivary gland tumor overall is:

✓ **Answer: B — Pleomorphic adenoma**

Explanation: Pleomorphic adenoma is the #1 salivary gland tumor overall and #1 parotid tumor.

Slide: Head & Neck

Q41: The most common MALIGNANT salivary gland tumor in children is:

✓ **Answer: B — Mucoepidermoid carcinoma**

Explanation: Mucoepidermoid carcinoma is the most common malignant salivary gland tumor in children and adults.

Slide: Head & Neck

MUST MEMORIZE

Head & Neck Oncology Must-Knows:

- NPC: #1 presentation = neck mass, #1 site = Rosenmuller fossa, #1 CN palsy = CN VI
- NPC treatment: RADIOTHERAPY
- Unilateral OME in adult = suspect NPC
- Radiation to neck → thyroid carcinoma risk
- Vocal cord tumors = NOT hidden (early hoarseness)
- Hidden primaries: supraglottis, base of tongue, pyriform fossa, tonsils
- Glottic carcinoma = BEST prognosis
- FNA showing SCC → pan-endoscopy
- Foramen caecum mass → thyroid scan BEFORE biopsy
- Zenker's diverticulum = regurgitation
- Pyriform fossa tumor → early referred otalgia
- Bell's palsy = corticosteroids
- #1 salivary gland tumor: Pleomorphic adenoma
- #1 malignant salivary gland: Mucoepidermoid carcinoma