

NEET MDS Oral and Maxillofacial Surgery Sample Paper – 9

Questions: 100

Duration: 90

Max Marks: 400

- Q1.** According to Winter's classification applied to maxillary third molars, which term describes a tooth whose long axis is angled away from the adjacent second molar at 11–30 degrees in the mesio-distal plane?
- (A) Mesioangular
 - (B) Distoangular
 - (C) Transverse
 - (D) Vertical
- Q2.** Anaesthesia of an upper third molar for surgical removal typically requires which combination of nerve blocks?
- (A) IANB + lingual nerve block
 - (B) Buccal nerve block + mental nerve block
 - (C) Nasopalatine block + anterior superior alveolar block
 - (D) Posterior superior alveolar block + greater palatine block
- Q3.** Which anatomical variation most significantly increases the difficulty of removing a maxillary third molar and the risk of displacement into the infratemporal fossa?
- (A) Dilacerated root diverging buccally
 - (B) Mesioangular impaction with root taper
 - (C) Hypercementosis of the root
 - (D) Thin buccal cortical plate with coronal angulation and inadequate visualisation
- Q4.** A 65-year-old patient with a deeply impacted asymptomatic mandibular third molar is assessed. Which principle best supports a conservative watch-and-wait approach rather than prophylactic removal?



- (A) The risk of caries in the adjacent second molar is negligible after 60 years
- (B) The surgical risk-to-benefit ratio is unfavourable as the patient is elderly with closed apex and no pathology
- (C) Roots are always fused to bone in elderly patients making extraction impossible
- (D) Pericoronitis cannot occur after age 60

Q5. A diabetic patient undergoes third molar surgery. Which statement regarding infection risk in this patient is most accurate?

- (A) Diabetic patients have enhanced neutrophil function and lower infection risk
- (B) Blood glucose control has no impact on post-surgical infection
- (C) Diabetic patients only require antibiotic prophylaxis if they are insulin-dependent
- (D) Poor glycaemic control impairs neutrophil chemotaxis and phagocytosis, markedly increasing infection risk

Q6. A patient on warfarin requires third molar surgery. What is the primary risk specific to anticoagulation therapy in this context?

- (A) Impaired wound healing due to factor deficiency
- (B) Increased susceptibility to orofacial infection
- (C) Increased haemorrhage risk due to reduced clotting factor activity
- (D) Avascular necrosis of the jaw

Q7. Current evidence-based prophylaxis before third molar surgery in a non-penicillin-allergic patient includes which regimen?

- (A) Amoxicillin 2 g plus metronidazole 500 mg given 1 hour before surgery
- (B) Metronidazole 400 mg three times daily for 7 days post-operatively
- (C) Clindamycin 600 mg intravenously intra-operatively only



(D) Amoxicillin 500 mg three times daily starting 3 days before surgery

Q8. Which clinical feature most reliably differentiates pericoronitis from masseteric space infection as the cause of trismus after third molar eruption?

(A) Degree of mouth opening

(B) Body temperature measurement

(C) Facial swelling location

(D) Inflamed operculum overlying the partially erupted third molar with purulent exudate on retromolar pressure

Q9. Neurosensory testing of inferior alveolar nerve function after mandibular third molar removal is best assessed by which combination of tests?

(A) Percussion test and cold pulp test

(B) Sharp-blunt discrimination alone

(C) Periodontal probing depth

(D) Two-point discrimination, brush stroke direction test, VAS pain rating, and Semmes-Weinstein monofilament threshold

Q10. For surgical removal of a horizontally impacted mandibular third molar, which bone removal pattern is most appropriate?

(A) Circumferential bone removal around the entire root surface

(B) Buccal gutter trough with distal bone removal to create a pathway for the tooth to exit

(C) Removal of lingual bone only to displace the tooth lingually

(D) Apical bone removal only to push the tooth coronally

Q11. Which of the following is classified as a delayed complication (occurring more than 7 days) after third molar removal?

(A) Reactionary haemorrhage

(B) Dry socket (alveolar osteitis)

(C) Primary haemorrhage



(D) Swelling peaking at 48 hours

Q12. A pericoronal radiolucency extending well beyond the normal follicular space of 2–3 mm around an impacted third molar is most suggestive of which associated lesion?

- (A) Odontogenic keratocyst (OKC)
- (B) Periapical granuloma
- (C) Radicular cyst
- (D) Calcifying epithelial odontogenic tumour

Q13. When comparing micromotor handpieces with electric handpieces for third molar surgery, which statement is correct?

- (A) Electric handpieces provide consistent torque without stalling and are preferred for bone cutting in third molar surgery
- (B) Micromotor handpieces provide more consistent torque at low speeds
- (C) There is no clinical difference between the two for bone removal
- (D) Electric handpieces cannot be used with surgical burs

Q14. Surgical navigation systems used in complex third molar cases primarily offer which advantage?

- (A) They replace the need for preoperative CBCT
- (B) They provide real-time haptic feedback to the surgeon
- (C) They allow real-time three-dimensional visualisation of instrument position relative to vital structures during surgery
- (D) They automatically control the depth of bone cutting

Q15. An immunosuppressed renal transplant patient requires removal of an infected mandibular third molar. Which specific risk is most elevated compared to a healthy individual?

- (A) Risk of trigeminal neuralgia post-operatively
- (B) Risk of septicaemia and opportunistic infection due to compromised immune surveillance



- (C) Risk of post-operative dry socket only
- (D) Risk of inferior alveolar nerve injury due to immunosuppressant-related neuropathy

Q16. Reactionary haemorrhage after tooth extraction classically occurs at which time and is attributed to which mechanism?

- (A) Within the first 30 minutes due to vessel laceration
- (B) 24–48 hours due to clot infection
- (C) Around 4–6 hours post-extraction as the vasoconstrictive effect of adrenaline wears off
- (D) 5–7 days due to fibrinolysis of the clot

Q17. Secondary haemorrhage after tooth extraction, occurring more than 24 hours post-operatively, is most commonly caused by which aetiology?

- (A) Coagulopathy undiagnosed pre-operatively
- (B) Arterial pressure exceeding venous haemostasis
- (C) Excessive use of local anaesthetic
- (D) Infection of the socket leading to clot dissolution and vessel erosion

Q18. A patient presents with persistent bleeding 5 hours after extraction. Initial management should include which step?

- (A) Bite on a gauze pack for 20–30 minutes; if bleeding continues, re-pack with haemostatic material and re-suture the socket
- (B) Immediate referral to hospital without any local measures
- (C) Prescribe tranexamic acid and observe for another 12 hours
- (D) Apply ice pack externally and advise rest only

Q19. Regarding post-extraction analgesia, which statement best describes the mechanism of ibuprofen compared to paracetamol?

- (A) Ibuprofen inhibits both COX-1 and COX-2 peripherally, providing anti-inflammatory and analgesic effects; paracetamol acts centrally with minimal anti-inflammatory action



- (B) Paracetamol inhibits COX-2 selectively and is preferred for inflammatory pain
- (C) Ibuprofen acts only centrally on pain perception pathways
- (D) Both drugs have identical mechanisms acting on opioid receptors

Q20. Which post-extraction patient instruction is most critical to prevent dry socket?

- (A) Rinse vigorously with warm salt water every hour for the first day
- (B) Avoid smoking, alcohol, rinsing, sucking through a straw, and vigorous exercise for at least 24 hours
- (C) Apply a warm compress to the face immediately after extraction
- (D) Eat hot soft foods to promote blood flow to the socket

Q21. Which indication most clearly justifies tooth extraction under general anaesthesia rather than local anaesthesia in the dental setting?

- (A) Patient preference for comfort
- (B) Single tooth extraction in an anxious but cooperative adult
- (C) Needle phobia that can be managed with conscious sedation
- (D) Uncooperative patient requiring multiple extractions who is medically compromised and unable to tolerate conscious sedation

Q22. In oral surgery performed during pregnancy, which trimester is considered safest for elective extractions?

- (A) First trimester – organogenesis is complete
- (B) Third trimester – foetal maturity reduces drug risks
- (C) Second trimester – organogenesis is complete, risk of supine hypotension and pre-term labour is lower than third trimester
- (D) Any trimester with appropriate antibiotic cover

Q23. According to the 2007 AHA guidelines, antibiotic prophylaxis before dental extractions is indicated for patients with which cardiac condition?



- (A) Isolated mitral valve prolapse without regurgitation
- (B) Prosthetic heart valve or previous infective endocarditis
- (C) Well-controlled hypertension on antihypertensives
- (D) Coronary artery disease on aspirin therapy

Q24. The Densah bur (osseodensification) technique for implant site preparation differs from conventional drilling in which fundamental way?

- (A) It removes bone in the same manner as conventional drilling but at higher speed
- (B) It creates an implant site using ultrasonic vibration
- (C) It compacts bone laterally without removing it, increasing bone density at the site and improving implant primary stability
- (D) It requires no irrigation and uses a diamond-coated bur

Q25. Day-case dental general anaesthesia requires which of the following as a mandatory prerequisite?

- (A) A responsible adult escort and transport home with written post-operative instructions, with the patient having fasted appropriately
- (B) Only a consent form signed by the patient
- (C) Full in-patient admission regardless of procedure duration
- (D) Pre-operative haematological workup for all patients

Q26. The most reliable clinical indicator of successful inferior alveolar nerve block (IANB) for pulpal anaesthesia, rather than mere soft tissue anaesthesia, is which test?

- (A) Absence of tingling in the lower lip
- (B) Negative response to cold pulp test (ethyl chloride or Endo-Ice) on the tooth to be treated
- (C) Absence of pain on periodontal probing
- (D) Patient reporting numbness of the chin



- Q27.** When an IANB fails to achieve adequate pulpal anaesthesia for a mandibular molar, which supplemental technique involves injecting 0.2 ml of anaesthetic into the periodontal ligament space?
- (A) Gow-Gates block
 - (B) Vazirani-Akinosi block
 - (C) Intraosseous injection via Stabident system
 - (D) Periodontal ligament (PDL) intraligamentary injection
- Q28.** The intrapulpal injection is reserved as a last resort because it has which characteristic?
- (A) It is very painful on injection due to back-pressure but provides immediate pulpal anaesthesia
 - (B) It has the slowest onset of all supplemental techniques
 - (C) It is painless but has a success rate of only 30%
 - (D) It requires a large volume (3–4 ml) of anaesthetic to be effective
- Q29.** Anaesthesia of the palatal gingiva adjacent to the upper premolars and molars for surgical procedures is best achieved by which block?
- (A) Nasopalatine block at the incisive foramen
 - (B) Greater palatine nerve block at the greater palatine foramen
 - (C) Anterior superior alveolar block
 - (D) Zygomatic block
- Q30.** Which vasoconstrictor concentration provides the greatest duration of anaesthesia with the least cardiovascular effect?
- (A) Adrenaline 1:50,000
 - (B) Adrenaline 1:80,000
 - (C) Adrenaline 1:100,000
 - (D) Adrenaline 1:200,000



- Q31.** A patient taking propranolol (a non-selective beta-blocker) receives a dental cartridge containing adrenaline 1:80,000. The specific cardiovascular risk is best described as which phenomenon?
- (A) Reflex bradycardia due to beta-2 mediated vasodilatation
 - (B) Hypotension due to blockade of cardiac beta-1 receptors by propranolol combined with adrenaline
 - (C) Hypertension due to unopposed alpha-1 stimulation by adrenaline when beta-2 vasodilatation is blocked by propranolol
 - (D) No significant interaction at dental doses
- Q32.** For a short paediatric dental procedure in a healthy child where post-operative soft tissue anaesthesia duration must be minimised to reduce self-inflicted trauma, which local anaesthetic is preferred?
- (A) Lidocaine 2% with adrenaline 1:80,000
 - (B) Mepivacaine 3% plain (without vasoconstrictor)
 - (C) Articaine 4% with adrenaline 1:100,000
 - (D) Bupivacaine 0.5% with adrenaline 1:200,000
- Q33.** The maximum safe dose of lignocaine (lidocaine) for a child is 4.4 mg/kg. For a 20 kg child, what is the maximum total dose of lignocaine?
- (A) 44 mg
 - (B) 66 mg
 - (C) 55 mg
 - (D) 88 mg
- Q34.** EMLA cream (eutectic mixture of lidocaine and prilocaine) for topical surface anaesthesia before venepuncture requires what minimum application time to achieve effective dermal anaesthesia?
- (A) 15 minutes under occlusion
 - (B) 30 minutes under occlusion
 - (C) 60 minutes under occlusion



(D) 5 minutes without occlusion

Q35. Oraquix (lidocaine 2.5% + prilocaine 2.5% periodontal gel) is specifically designed for which dental application?

- (A) Subgingival application into periodontal pockets before scaling and root planing without the need for injection
- (B) Topical application before IANB needle insertion
- (C) Intraosseous infiltration for mandibular molars
- (D) Surface anaesthesia of the palatal mucosa before greater palatine block

Q36. The intrapapillary injection technique is most useful for which clinical scenario?

- (A) Extraction of mandibular molars when IANB has failed
- (B) Soft tissue procedures involving the interdental papilla, providing rapid onset anaesthesia at the injection site
- (C) Pulpal anaesthesia of maxillary anterior teeth
- (D) Anaesthesia of the floor of mouth for sublingual gland surgery

Q37. Ethyl chloride spray applied to skin or mucosa produces brief local anaesthesia through which mechanism?

- (A) Sodium channel blockade similar to lignocaine
- (B) Histamine release causing local vasodilatation
- (C) Direct nerve fibre compression
- (D) Rapid evaporation causing intense cooling and freezing of superficial nerve endings (cryoanaesthesia)

Q38. Which needle gauge is typically used for IANB in adults to allow aspiration and reduce deflection on insertion?

- (A) 25 gauge long needle (35 mm)
- (B) 30 gauge short needle (21 mm)



- (C) 27 gauge extra-short needle (10 mm)
- (D) 21 gauge short needle (25 mm)

Q39. Research on pain perception in the dental setting consistently demonstrates which relationship with patient anxiety?

- (A) Anxious patients have lower pain thresholds but better pain tolerance than non-anxious patients
- (B) Anxiety has no measurable effect on pain perception in adults
- (C) Higher anxiety correlates with lower pain threshold and higher pain intensity ratings, mediated by central sensitisation and hypervigilance
- (D) Anxiety reduces pain through endogenous opioid release (stress-induced analgesia always predominates)

Q40. The X-tip intraosseous anaesthesia system for supplemental anaesthesia in mandibular molars works by which mechanism?

- (A) Injecting anaesthetic into the pulp chamber directly
- (B) Perforating the cortical bone with a drill-guide combination to deposit anaesthetic directly into the cancellous bone adjacent to the tooth
- (C) Delivering anaesthetic via a high-pressure syringe into the periodontal ligament
- (D) Creating a field block around the mandibular body

Q41. Which classification system describes orofacial infections as primary (arising directly from odontogenic sources) versus secondary (spreading from lymph nodes or via anatomical spaces)?

- (A) Levine classification
- (B) AAOMS classification
- (C) Marx classification
- (D) Topazian and Goldberg primary vs secondary classification of orofacial infections



- Q42.** Severe trismus in a patient with a spreading odontogenic infection is defined as mouth opening of less than which measurement?
- (A) 30 mm
 - (B) 10 mm
 - (C) 20 mm
 - (D) 5 mm
- Q43.** Which laboratory marker is most useful as an early, sensitive indicator of bacteraemia and systemic sepsis in a patient with an odontogenic infection?
- (A) Erythrocyte sedimentation rate (ESR)
 - (B) White blood cell count alone
 - (C) Serum procalcitonin
 - (D) C-reactive protein (CRP) alone
- Q44.** Before culture and sensitivity results are available, empirical antibiotic therapy for a spreading odontogenic infection in a non-allergic patient should primarily target which organisms?
- (A) Mixed flora including anaerobes (*Fusobacterium*, *Prevotella*) and streptococci – covered by amoxicillin-clavulanate or amoxicillin plus metronidazole
 - (B) *Staphylococcus aureus* only – treated with flucloxacillin
 - (C) Gram-negative aerobic rods – treated with ciprofloxacin
 - (D) *Candida* species – treated with fluconazole
- Q45.** Recommended duration of antibiotic therapy for a well-drained odontogenic space infection is typically how many days?
- (A) 14 days
 - (B) 3 days
 - (C) 10 days
 - (D) 5–7 days



- Q46.** A patient who fails to respond to appropriate antibiotics and adequate surgical drainage most likely has which underlying factor?
- (A) Incorrect diagnosis of the infective organism
 - (B) Drug allergy causing immune suppression
 - (C) Immunocompromise, resistant organism, or inadequate drainage of a deep or multilocular abscess
 - (D) Inadequate dose of antibiotic based on tablet formulation
- Q47.** According to Marx's classification, Stage II osteomyelitis of the jaw is characterised by which features?
- (A) Non-suppurative osteomyelitis without radiographic changes
 - (B) Suppurative osteomyelitis with sequestrum formation, suppuration, and sinus tracts
 - (C) Chronic diffuse osteomyelitis with extensive bone involvement requiring resection
 - (D) Osteomyelitis limited to the alveolar process only
- Q48.** The AAOMS 2014 staging of medication-related osteonecrosis of the jaw (MRONJ) – Stage 3 – is defined by which criteria?
- (A) Exposed bone present for less than 8 weeks with no symptoms
 - (B) Exposed bone with pain and infection but no pathological fracture
 - (C) Exposed bone involving the inferior border only with mild symptom
 - (D) Exposed or probed bone with pain, infection, plus one or more of: pathological fracture, extraoral fistula, osteolysis to inferior border or sinus floor
- Q49.** The risk of MRONJ with intravenous bisphosphonate therapy (such as zoledronate) compared with oral bisphosphonate therapy is best characterised as which relationship?
- (A) Oral bisphosphonate carries higher risk than IV bisphosphonate
 - (B) Both carry equal risk at standard doses



- (C) IV bisphosphonate carries substantially higher risk (estimated 1–10%) compared to oral bisphosphonate (less than 0.1%)
- (D) Neither carries significant risk below 3 years of use

Q50. Ludwig's angina is a rapidly spreading bilateral infection that specifically involves which anatomical spaces?

- (A) Lateral pharyngeal and masseteric spaces bilaterally
- (B) Buccal and canine spaces with bilateral involvement
- (C) Masticator and parapharyngeal spaces with parotid involvement
- (D) Submandibular, submental, and sublingual spaces bilaterally, causing life-threatening airway compromise

Q51. In a patient with a parapharyngeal space infection, the most immediately life-threatening complication is which condition?

- (A) Airway obstruction from superior and lateral displacement of the pharyngeal wall
- (B) Cavernous sinus thrombosis
- (C) Mediastinitis from inferior spread
- (D) Meningitis from intracranial extension

Q52. Which sign on computed tomography most reliably indicates that a dental abscess has progressed to a drainable collection requiring incision and drainage rather than antibiotic treatment alone?

- (A) Ring-enhancing hypodense fluid collection with a defined enhancing rim (rim-enhancing abscess)
- (B) Diffuse soft tissue oedema without discrete fluid
- (C) Gas bubbles within the soft tissues (emphysema)
- (D) Bony erosion of the mandibular cortex

Q53. Epidemiological data from India consistently show which is the commonest cause of maxillofacial fractures?



- (A) Interpersonal violence
- (B) Road traffic accidents
- (C) Falls from height
- (D) Sports injuries

Q54. In the primary survey of a maxillofacial trauma patient, which airway threat specific to mandibular fractures must be addressed first?

- (A) Bleeding from facial lacerations
- (B) Orbital floor fracture causing diplopia
- (C) Nasal bone fracture causing epistaxis
- (D) Posterior displacement of the tongue due to bilateral parasymphysal fractures causing airway obstruction

Q55. Imaging for a patient with suspected complex panfacial trauma should include which combination as the gold standard?

- (A) Plain X-rays only (OPG, Waters' view)
- (B) OPG and lateral skull radiograph
- (C) CT of the maxillofacial skeleton with 3D reconstruction, supplemented by OPG
- (D) MRI of the facial skeleton

Q56. Le Fort I fracture (horizontal maxillary fracture) runs through which anatomical weak line?

- (A) Guerin's fissure – through the pyriform aperture, lateral nasal walls, and pterygomaxillary junction at the level of the nasal floor
- (B) Through the infraorbital rims and nasal bones
- (C) Through the zygomatic arches and orbital floors bilaterally
- (D) Through the frontozygomatic sutures and nasal bones

Q57. Le Fort II fracture characteristically produces paraesthesia of the cheek because it involves which nerve?



- (A) Zygomaticofacial nerve
- (B) Buccal nerve
- (C) Mental nerve
- (D) Infraorbital nerve (damaged at the infraorbital foramen as the fracture line passes through it)

Q58. Le Fort III fracture (craniofacial dysjunction) carries a specific risk of blindness because the fracture line passes through which structure?

- (A) Optic canal or superior orbital fissure, risking direct optic nerve injury
- (B) Carotid canal
- (C) Foramen rotundum
- (D) Cribriform plate

Q59. The optimal timing for open reduction and internal fixation of midface fractures to achieve the best functional and aesthetic outcome is within which window?

- (A) 72 hours only
- (B) 24 hours to avoid oedema
- (C) Within 2 weeks of injury, before fibrous union makes reduction difficult
- (D) 4–6 weeks to allow initial healing

Q60. Rigid internal fixation with titanium miniplates has replaced direct wiring for mandibular fractures. Which advantage of rigid internal fixation is most clinically significant?

- (A) It is less expensive than wire fixation
- (B) It requires no post-operative follow-up
- (C) It avoids the need for general anaesthesia
- (D) It allows early mobilisation of the mandible, facilitates airway management, and promotes faster bone healing with fewer complica-



tions

- Q61.** A patient with a zygomatic complex fracture is found to have enophthalmos and diplopia on upward gaze. Which structure has been specifically disrupted?
- (A) Lateral orbital wall at the frontozygomatic suture
 - (B) Zygomatic arch causing temporal muscle entrapment
 - (C) Orbital floor with herniation or entrapment of orbital contents (inferior rectus muscle)
 - (D) Inferior orbital fissure causing oculomotor nerve injury
- Q62.** Condylar fractures in children differ from adults because in children the condyle has which unique property?
- (A) Children have denser bone making condylar fractures less common
 - (B) Condylar fractures in children always require open reduction
 - (C) Children never develop TMJ ankylosis after condylar fractures
 - (D) The condylar head has significant remodelling potential in children, and most undisplaced or subcondylar fractures are managed conservatively
- Q63.** Which clinical sign – bilateral anterior open bite after facial trauma in an adult – is most characteristic of which fracture pattern?
- (A) Bilateral condylar fractures causing loss of posterior facial height and anterior open bite
 - (B) Bilateral Le Fort I fractures
 - (C) Symphyseal fracture only
 - (D) Bilateral zygomatic arch fractures impinging on the coronoid process
- Q64.** Panfacial fractures involving the naso-orbito-ethmoid (NOE) complex characteristically produce which clinical sign?
- (A) Proptosis and chemosis of the conjunctiva



- (B) Telecanthus (increased intercanthal distance) due to disruption of medial canthal tendon attachment
- (C) Bilateral periorbital bruising (raccoon eyes) alone
- (D) Step deformity at the infraorbital rim with no increase in intercanthal distance

Q65. The pathognomonic histopathological finding specific to radicular cysts, not found in other jaw cysts, is which structure?

- (A) Cholesterol clefts with foreign body giant cells
- (B) Ciliated columnar epithelium
- (C) Rushton bodies (hyaline linear or curved eosinophilic bodies within the epithelium)
- (D) Palisaded basal cell layer

Q66. The epithelial lining of an odontogenic keratocyst (OKC) differs from that of a radicular cyst in which specific histological feature?

- (A) OKC lining is non-keratinised and 10–20 cells thick
- (B) OKC lining contains mucous cells and goblet cells
- (C) OKC lining shows intraluminal papillary projections
- (D) OKC lining is parakeratinised stratified squamous epithelium with a corrugated luminal surface and a palisaded basal layer of tall columnar cells

Q67. The most serious neoplastic transformation that can occur within the lining of a long-standing dentigerous cyst is which condition?

- (A) Ameloblastoma arising from the cyst lining
- (B) Mucoepidermoid carcinoma
- (C) Squamous cell carcinoma
- (D) Central giant cell granuloma

Q68. Carnoy's solution used as a chemical adjunct after OKC enucleation achieves its effect by which mechanism?



- (A) Dissolving residual epithelial cells with alkaline hydrolysis
- (B) Protein denaturation and tissue fixation, penetrating bone approximately 1.5 mm and devitalising satellite cysts and epithelial remnants
- (C) Creating a bactericidal environment that prevents recurrence
- (D) Stimulating new bone formation in the cyst cavity

Q69. Marsupialization (Partsch I operation) for a large OKC is chosen over immediate enucleation in which clinical situation?

- (A) When the cyst is less than 2 cm in size
- (B) When Rushton bodies are present in the lining
- (C) When the cyst is very large, endangering vital structures, and marsupialization will reduce its size to facilitate safer subsequent enucleation
- (D) When the patient refuses general anaesthesia entirely

Q70. According to the WHO 2017 classification of odontogenic cysts, which cysts are classified under inflammatory odontogenic cysts?

- (A) Radicular cyst and collateral (paradental) cyst
- (B) Dentigerous cyst and lateral periodontal cyst
- (C) OKC and gingival cyst of adults
- (D) Nasolabial cyst and median palatine cyst

Q71. A radiolucency at the apex of a non-vital upper lateral incisor with root resorption and bony expansion in a 45-year-old is most consistent with which lesion?

- (A) Periapical granuloma (cannot cause bony expansion)
- (B) Radicular cyst (periapical cyst)
- (C) Nasopalatine duct cyst
- (D) Odontogenic keratocyst



- Q72.** The term 'cyst enucleation' is correctly defined as which surgical procedure?
- (A) Excision of the cyst with a margin of surrounding normal mucosa and bone
 - (B) Removal of a portion of the cyst wall to decompress the lesion
 - (C) Complete removal of the cyst lining and wall from the bony cavity, leaving the bony cavity intact
 - (D) Curettage of the bony cavity without removing the entire lining
- Q73.** A well-defined unilocular radiolucency in the posterior mandible of a 25-year-old patient with scalloped borders between the roots of vital teeth most likely represents which lesion?
- (A) Radicular cyst
 - (B) Ameloblastoma
 - (C) Dentigerous cyst
 - (D) Odontogenic keratocyst
- Q74.** Which imaging feature of a jaw cyst on CBCT most strongly suggests OKC rather than a simple dentigerous or radicular cyst?
- (A) Unilocular appearance with well-corticated margins
 - (B) Anteroposterior growth pattern with minimal buccolingual expansion relative to lesion size, and tooth displacement without root resorption
 - (C) Periapical location with associated non-vital tooth
 - (D) Fluid-fluid level within the cyst on MRI
- Q75.** According to the WHO 2017 classification, which histological subtype of ameloblastoma is associated with the highest recurrence rate and is no longer considered a separate entity but classified under 'conventional ameloblastoma'?
- (A) Unicystic ameloblastoma



- (B) Desmoplastic ameloblastoma (previously a separate entity but now grouped)
- (C) Peripheral (extraosseous) ameloblastoma
- (D) Plexiform ameloblastoma

Q76. Desmoplastic ameloblastoma characteristically differs from conventional ameloblastoma in which radiographic and anatomical feature?

- (A) Mixed radiolucent-radiopaque appearance with a tendency to occur in the anterior maxilla, often misdiagnosed as a fibro-osseous lesion
- (B) Purely radiolucent multilocular appearance in the posterior mandible
- (C) Association with an impacted tooth (dentigerous relationship)
- (D) Involvement of the condyle exclusively

Q77. Ameloblastic carcinoma, the malignant counterpart of ameloblastoma, differs from its benign form by which defining criterion?

- (A) Larger size at presentation
- (B) Presence of desmoplastic stroma
- (C) Cytological features of malignancy (nuclear pleomorphism, increased mitosis, necrosis) with capacity for metastasis, typically to cervical lymph nodes and lungs
- (D) Absence of follicular pattern on histology

Q78. Clear cell odontogenic carcinoma is characterised by which molecular genetic alteration that aids diagnosis?

- (A) BRAF V600E mutation
- (B) TP53 mutation
- (C) RAS mutation
- (D) EWSR1-ATF1 gene fusion detectable by FISH or RT-PCR

Q79. Jaw metastases on radiography characteristically appear as which type of lesion?



- (A) Well-defined unilocular radiolucency with corticated border
- (B) Mixed radiolucent-radiopaque lesion with sunburst periosteal reaction
- (C) Ill-defined radiolucency with 'floating teeth' appearance, widened periodontal ligament space, and punched-out lesions
- (D) Multilocular radiolucency with soap-bubble appearance

Q80. In females, the most common primary tumour to metastasise to the jaw is which malignancy?

- (A) Breast carcinoma
- (B) Lung carcinoma
- (C) Renal cell carcinoma
- (D) Colorectal carcinoma

Q81. Ghost cell odontogenic carcinoma (malignant CCOT) is distinguished from its benign counterpart by which feature?

- (A) The presence of ghost cells in the epithelium
- (B) Calcification within the lesion
- (C) Dentinoid material production
- (D) Infiltrative growth, cytological atypia, mitotic figures, and aggressive clinical behaviour with recurrence and metastasis

Q82. Primary intraosseous squamous cell carcinoma of the jaw is defined by which criterion?

- (A) SCC arising from a pre-existing radicular cyst lining
- (B) SCC arising within the jaw bone with no connection to the oral mucosal surface, presumably from odontogenic epithelial rests
- (C) SCC arising from the gingival mucosa and invading bone secondarily
- (D) SCC arising from a dentigerous cyst lining in a young patient

Q83. The Research Diagnostic Criteria for Temporomandibular Disorders (RDC/TMD) is a dual-axis system. Axis II specifically assesses which dimension?



- (A) Mandibular range of motion and joint sounds
- (B) Imaging classification of condylar changes
- (C) Psychosocial status including pain-related disability, depression, and somatisation
- (D) Bite force measurement and muscle tenderness

Q84. Sleep bruxism is classified as which type of disorder according to sleep medicine criteria?

- (A) A nocturnal seizure disorder
- (B) A sleep-related movement disorder (parasomnia) characterised by rhythmic masticatory muscle activity (RMMA) during sleep
- (C) A REM sleep behaviour disorder
- (D) A circadian rhythm sleep disorder

Q85. Which of the following is NOT a recognised consequence of chronic bruxism?

- (A) Gingival hyperplasia
- (B) Tooth wear (attrition)
- (C) Masseter muscle hypertrophy
- (D) Fracture of teeth and restorations

Q86. Botulinum toxin injection into the masseter muscle for the management of severe sleep bruxism acts by which mechanism?

- (A) Blocking sensory afferents to prevent pain perception
- (B) Stimulating gamma-aminobutyric acid (GABA) receptors at the neuromuscular junction
- (C) Reducing central sensitisation in the trigeminal nucleus
- (D) Inhibiting acetylcholine release at the neuromuscular junction, reducing masseter muscle hyperactivity

Q87. Juvenile idiopathic arthritis (JIA) involving the TMJ in growing children characteristically produces which skeletal consequence?



- (A) Condylar hyperplasia with facial asymmetry
- (B) Temporomandibular joint ankylosis exclusively without condylar changes
- (C) Condylar resorption leading to retrognathia and bilateral posterior open bite due to reduced condylar growth
- (D) Unilateral condylar enlargement with cross-bite

Q88. Idiopathic condylar resorption (ICR) most commonly affects which demographic, and what is the typical clinical presentation?

- (A) Middle-aged men with anterior open bite developing after sleep apnoea treatment
- (B) Post-menopausal women with bilateral TMJ clicking
- (C) Children aged 8–12 with posterior open bite
- (D) Young women (often post-orthodontic treatment), with progressive anterior open bite and retrognathia due to bilateral condylar resorption

Q89. Fonseca's anamnestic index is used in TMD assessment to classify patients into which categories?

- (A) Mild, moderate, and severe TMD based on imaging findings
- (B) No TMD, mild, moderate, and severe TMD based on patient-reported symptoms and history
- (C) Muscular vs articular TMD based on physical examination
- (D) Acute vs chronic TMD based on pain duration

Q90. Skeletal stability after mandibular advancement (Le Fort I + BSSO) for Class II correction is most likely to be compromised by which factor?

- (A) Amount of maxillary impaction performed simultaneously
- (B) Use of rigid fixation versus wire osteosynthesis
- (C) Large magnitude of mandibular advancement (> 10 mm) with condylar torque and post-surgical condylar resorption
- (D) Patient age at time of surgery



- Q91.** In the combined orthodontic-orthognathic treatment sequence, presurgical orthodontics is designed to achieve which goal?
- (A) Decompensate dental inclinations to reveal the true skeletal discrepancy, temporarily worsening the malocclusion
 - (B) Correct the malocclusion before surgery to reduce surgical complexity
 - (C) Expand the arches to make the surgery easier
 - (D) Finish all orthodontic treatment before any surgical planning begins
- Q92.** Informed consent for orthognathic surgery must specifically include which risks unique to orthognathic procedures?
- (A) Risk of enamel decalcification from orthodontic brackets
 - (B) Risk of implant failure if implants are placed simultaneously
 - (C) Risk of periodontal disease exacerbation from orthodontic treatment
 - (D) Risk of inferior alveolar nerve paraesthesia, skeletal relapse, potential need for blood transfusion, and risk of TMJ changes post-surgically
- Q93.** Post-surgical orthodontics after orthognathic surgery is typically commenced at which timepoint and achieves which goal?
- (A) Immediately post-operatively to guide healing
 - (B) 6 months post-operatively once bone is fully healed
 - (C) 6–8 weeks post-operatively once initial bone healing allows bracket engagement, to detail occlusion and close residual spaces
 - (D) 2 years post-operatively for retention only
- Q94.** Which patient-reported outcome measure has consistently shown improvement in quality of life and self-image following successful orthognathic surgery?
- (A) No measurable change in quality of life is reported in systematic reviews



- (B) Significant improvement in Oral Health Impact Profile (OHIP) scores, self-esteem, and facial satisfaction questionnaires
- (C) Improvement in systemic health markers only (BMI, sleep quality)
- (D) Worsening of psychological outcomes due to surgical trauma and recovery

Q95. Physiotherapy and dietary guidance in the post-operative orthognathic surgery period primarily aim to achieve which outcome?

- (A) Restore full mandibular range of motion, prevent scar contracture, and maintain nutrition through appropriate diet progression from liquid to soft to normal
- (B) Reduce the need for post-surgical orthodontics
- (C) Prevent infection at osteotomy sites
- (D) Accelerate bone remodelling through mechanical loading

Q96. A labial frenectomy for a midline diastema is indicated when which clinical criterion is met?

- (A) The frenulum is visible on examination regardless of its insertion
- (B) The diastema is greater than 3 mm regardless of frenulum position
- (C) The frenulum inserts at or near the alveolar crest, causing a blanching of the incisive papilla when the lip is stretched (positive blanch test)
- (D) The patient is less than 12 years of age

Q97. Lingual frenectomy for ankyloglossia (tongue-tie) affecting speech and breastfeeding is indicated by which classification criterion?

- (A) Kotlow Class III (tongue-tie: free tongue length less than 12 mm with attachment at mid-tongue) or Class IV, causing functional impairment
- (B) Kotlow Class I only when the neonate cannot latch
- (C) Any visible frenulum regardless of tongue mobility



(D) Tongue-tie that resolves spontaneously by age 5 only

Q98. A patient presenting with severe unilateral temporal headache, jaw claudication (pain on prolonged chewing), and an elevated ESR of 95 mm/hour requires which urgent management?

(A) Refer to a dentist for TMJ assessment and occlusal splint

(B) MRI of the temporomandibular joint

(C) CT scan of the maxillofacial skeleton

(D) Urgent temporal artery biopsy and immediate high-dose corticosteroid therapy (prednisolone 40–60 mg/day) to prevent irreversible visual loss from giant cell arteritis

Q99. Carbamazepine is the first-line pharmacological treatment for trigeminal neuralgia. Its mechanism of action is which of the following?

(A) Inhibition of GABA reuptake at central synapses

(B) Voltage-gated sodium channel blockade, reducing ectopic neuronal firing responsible for lancinating pain

(C) Serotonin-noradrenaline reuptake inhibition

(D) NMDA receptor antagonism

Q100. Microvascular decompression (MVD) for trigeminal neuralgia is indicated in which clinical scenario, and what is the rationale?

(A) All patients with trigeminal neuralgia refractory to two medications

(B) Young patients with secondary (symptomatic) trigeminal neuralgia due to multiple sclerosis

(C) Patients with classical trigeminal neuralgia where neurovascular compression is confirmed on MRI, who are medically fit for posterior fossa surgery – MVD relieves compression of the trigeminal root without destroying nerve fibres, providing highest long-term pain-free rates

(D) Elderly patients with bilateral trigeminal neuralgia as a first surgical option



Answer Key – NEET MDS Oral and Maxillofacial Surgery Sample Paper 9

Solutions

Answer: (A) [Go Back to Q1](#)

Mesioangular impaction refers to a tooth whose long axis is tilted mesially (toward the adjacent second molar) in the mesio-distal plane. In Winter's classification adapted for maxillary third molars, mesioangular describes a 11–30 degree mesial inclination.

Answer: (D) [Go Back to Q2](#)

The posterior superior alveolar (PSA) nerve block anaesthetises the buccal aspect of the upper third molar. The greater palatine nerve block covers the palatal mucosa and gingiva from the distal of the upper canine posteriorly. Together, these two blocks provide complete anaesthesia for upper third molar surgery.

Answer: (D) [Go Back to Q3](#)

The maxillary third molar is at risk of displacement into the infratemporal fossa when the buccal cortical plate is very thin, the tooth has a coronal angulation, and visualisation is inadequate. Elevating blindly can push the tooth through the thin buccal bone into the infratemporal fossa.

Answer: (B) [Go Back to Q4](#)

In elderly patients with asymptomatic third molars and no associated pathology, the surgical risk (nerve injury, prolonged healing, post-operative morbidity) outweighs the uncertain benefit of prophylactic removal. Closed apices and dense bone increase surgical difficulty. Conservative management is supported by NICE guidance and SIGN guidelines for this population.

Answer: (D) [Go Back to Q5](#)

Poor glycaemic control in diabetes impairs neutrophil chemotaxis, phagocytosis, and oxidative burst, reducing the ability to fight infection. It also impairs collagen synthesis and angiogenesis, leading to delayed wound healing. These factors markedly increase the risk of post-surgical infection after third molar surgery.

Answer: (C) [Go Back to Q6](#)

Warfarin reduces the activity of vitamin K-dependent clotting factors (II, VII, IX, X). This increases the risk of intra-operative and post-operative haemorrhage. Current guidelines recommend not stopping warfarin for dental procedures if the INR is within therapeutic range (2–4), but local haemostatic measures must be employed.

Answer: (A) [Go Back to Q7](#)

Evidence supports a single pre-operative dose of amoxicillin 2 g plus metronidazole 500 mg given approximately 1 hour before third molar surgery in patients at higher risk (immunocompromised, complex surgery). This pre-emptive dosing achieves therapeutic tissue levels at the time of surgery, which is more effective than post-operative dosing.



Answer: (D) [Go Back to Q8](#)

The presence of an inflamed, oedematous operculum overlying a partially erupted third molar with purulent exudate on pressure on the retromolar area is pathognomonic of pericoronitis. Masseteric space infection causes trismus but is associated with brawny induration over the masseter without pericoronal tissue involvement.

Answer: (D) [Go Back to Q9](#)

Comprehensive neurosensory testing of IAN function post-operatively includes: two-point discrimination (measures spatial resolution), brush stroke direction test (tests light touch/directional sensitivity), VAS rating of pain and altered sensation, and Semmes-Weinstein monofilament testing for pressure threshold. Together these provide a complete picture of nerve injury severity and recovery.

Answer: (B) [Go Back to Q10](#)

For a horizontal impaction, a buccal gutter (trough) is created along the buccal and distal aspect to expose the crown and upper root. Distal bone is removed to create a pathway for the tooth body to exit the socket superiorly or after sectioning. This protects the lingual nerve and avoids excessive bone loss.

Answer: (B) [Go Back to Q11](#)

Dry socket (alveolar osteitis) is a delayed complication, typically occurring 3–5 days post-extraction, but classified as delayed (occurring more than 48 hours after surgery). It is caused by premature lysis of the blood clot, exposing the alveolar bone. Reactionary and primary haemorrhage are early (within hours) complications.

Answer: (A) [Go Back to Q12](#)

A normal follicular space around an impacted tooth is up to 2–3 mm. A pericoronal radiolucency extending beyond this – particularly if it has a scalloped border, extends along the root, or shows thin cortication – raises strong suspicion for an OKC. OKC has a predilection for the posterior mandible and is associated with impacted teeth.

Answer: (A) [Go Back to Q13](#)

Electric handpieces maintain constant torque regardless of resistance – they do not stall. This provides more controlled bone cutting, especially in dense bone. Micromotor (air-driven) handpieces can stall under load, losing speed and efficiency. Electric handpieces are therefore preferred in third molar surgery for efficiency and safety.

Answer: (C) [Go Back to Q14](#)

Surgical navigation systems (similar to those used in cranial and ENT surgery) allow real-time tracking of instrument position overlaid on pre-operative CBCT images. This is especially valuable in complex cases where the IAN, maxillary sinus, or other vital structures are close to the surgical site. They do not replace CBCT but utilise the data intra-operatively.

Answer: (B) [Go Back to Q15](#)

Immunosuppressed patients (e.g., renal transplant recipients on tacrolimus, mycophenolate, and steroids) have severely compromised cell-mediated and humoral immunity. Any dental infection can



progress rapidly to septicaemia and opportunistic organisms (fungi, drug-resistant bacteria) can cause life-threatening sepsis. Post-operative infection management requires close monitoring and often systemic antifungal/broader antibiotic cover.

Answer: (C) [Go Back to Q16](#)

Reactionary haemorrhage occurs when the vasoconstrictive effect of adrenaline in the local anaesthetic wears off, typically 4–6 hours post-operatively, allowing vessels that were constricted during the procedure to dilate and bleed. It is not related to infection or coagulopathy.

Answer: (D) [Go Back to Q17](#)

Secondary haemorrhage (also called ‘infected haemorrhage’) occurs more than 24 hours post-extraction due to infection of the socket. Infection causes clot dissolution by bacterial enzymes and erosion of vessel walls, leading to delayed bleeding. Treatment is source control (antibiotics, drainage, curettage) plus local haemostasis.

Answer: (A) [Go Back to Q18](#)

The first step is to apply direct pressure with a gauze pack and ask the patient to bite for 20–30 minutes. If bleeding persists, the socket should be inspected, cleaned, and re-packed with a haemostatic agent (e.g., oxidised cellulose, gelatin sponge) and sutures placed across the socket. Systemic agents are adjunctive only.

Answer: (A) [Go Back to Q19](#)

Ibuprofen is a non-selective COX inhibitor, blocking both COX-1 and COX-2, thereby reducing prostaglandin synthesis peripherally at the site of inflammation as well as centrally. Paracetamol acts primarily centrally (the exact mechanism is debated – possible COX-3 inhibition or endocannabinoid modulation) and has minimal peripheral anti-inflammatory effect, making ibuprofen more effective for inflammatory dental pain.

Answer: (B) [Go Back to Q20](#)

Smoking is the single most important risk factor for dry socket – nicotine causes vasoconstriction and the act of smoking creates negative pressure dislodging the clot. Alcohol, vigorous rinsing, sucking (through a straw), and vigorous exercise all increase the risk of clot disruption. Patients must be explicitly advised to avoid all of these for at least 24 hours.

Answer: (D) [Go Back to Q21](#)

General anaesthesia for dental extraction is indicated when the patient is uncooperative (e.g., severe learning disability, profound needle phobia unresponsive to sedation, severe anxiety), when multiple extractions are required in a single visit, or when the patient is medically compromised and cannot tolerate conscious sedation safely. Mere preference for comfort does not justify the added risks of GA.

Answer: (C) [Go Back to Q22](#)

The second trimester (weeks 14–28) is the safest window. Organogenesis (most vulnerable period for drug teratogenicity) is complete by the end of the first trimester. The third trimester carries risks of supine hypotension from aortocaval compression and pre-term labour from physiological stress. Elective dental surgery should be deferred in the first trimester; emergency treatment can be



performed at any stage.

Answer: (B) [Go Back to Q23](#)

The 2007 AHA guidelines recommend antibiotic prophylaxis only for patients at highest risk of adverse outcomes from infective endocarditis: those with prosthetic heart valves, previous infective endocarditis, certain types of congenital heart disease (unrepaired cyanotic CHD, repaired CHD with residual defects), and cardiac transplant with valvulopathy. Mitral valve prolapse without regurgitation is no longer an indication.

Answer: (C) [Go Back to Q24](#)

Osseodensification (Densah bur technique) uses specially designed burs that, when rotated counter-clockwise, compact bone laterally rather than removing it. This creates a denser bone wall around the implant site, improving primary stability through bone compaction. Conventional drilling removes bone, potentially reducing stability in lower-density bone.

Answer: (A) [Go Back to Q25](#)

Day-case dental GA requires the patient to have fasted (usually 6 hours for solids, 2 hours for clear fluids), have a responsible adult escort who will accompany them home and remain with them for at least 24 hours, and have written post-operative instructions. Adequate recovery facilities and monitoring post-procedure are also mandatory.

Answer: (B) [Go Back to Q26](#)

Soft tissue anaesthesia (lip tingling) confirms that the inferior alveolar nerve has been anaesthetised but does not guarantee pulpal anaesthesia – the tooth may still respond to stimuli due to accessory innervation or central sensitisation (hot tooth). Negative response to a cold test (pulp tester, ethyl chloride, or Endo-Ice) is the most reliable clinical indicator of adequate pulpal anaesthesia.

Answer: (D) [Go Back to Q27](#)

The periodontal ligament (PDL) or intraligamentary injection involves inserting a short, fine needle (30 gauge) into the PDL space at 30 degrees and injecting 0.2 ml with firm pressure. The anaesthetic diffuses through the cribriform plate into the periapical region. Onset is rapid (30 seconds). Stabident and X-tip are intraosseous systems requiring cortical bone perforation.

Answer: (A) [Go Back to Q28](#)

The intrapulpal injection requires that the needle is wedged tightly into the pulp canal to create back-pressure, which is extremely painful for the patient. However, this back-pressure is essential for anaesthetic efficacy – it forces the solution centrally along the canal. Once injected, profound anaesthesia occurs almost instantaneously, making it effective as a last resort.

Answer: (B) [Go Back to Q29](#)

The greater palatine nerve (a branch of the maxillary division of the trigeminal nerve) emerges from the greater palatine foramen and supplies the palatal mucosa and gingiva from the distal of the upper canine to the posterior palate. The nasopalatine nerve supplies the anterior palate (incisors and canines). For upper premolar and molar procedures, the greater palatine block is required.

Answer: (D) [Go Back to Q30](#)



Lower vasoconstrictor concentrations result in slower systemic absorption of the local anaesthetic, prolonging its duration of action at the injection site. Adrenaline 1:200,000 provides the longest duration of anaesthesia. Conversely, 1:50,000 is used for haemostasis in surgical fields. The cardiovascular effect increases with higher concentrations, making 1:200,000 the safest for patients with cardiac concerns.

Answer: (C) [Go Back to Q31](#)

Adrenaline activates both alpha (vasoconstriction) and beta-2 (vasodilatation) receptors. In patients on non-selective beta-blockers (e.g., propranolol), the beta-2 vasodilatory effect is blocked, leaving unopposed alpha-1 stimulation, causing systemic vasoconstriction and hypertension. A reflex bradycardia may follow. This is clinically significant at dental doses in susceptible patients.

Answer: (B) [Go Back to Q32](#)

Mepivacaine 3% plain (without vasoconstrictor) has a shorter duration of soft tissue anaesthesia than lidocaine with adrenaline. This is advantageous in paediatrics because the child cannot feel the lip, tongue, or cheek and may bite or traumatise the anaesthetised area. Using a solution without a vasoconstrictor reduces the duration and thus the window for self-inflicted injury.

Answer: (D) [Go Back to Q33](#)

Maximum dose = $4.4 \text{ mg/kg} \times 20 \text{ kg} = 88 \text{ mg}$. This corresponds to approximately 4.4 ml of 2% lignocaine solution (20 mg/ml). Clinicians must always calculate the maximum safe dose by weight for paediatric patients and count all cartridges used during the appointment.

Answer: (C) [Go Back to Q34](#)

EMLA cream requires 60 minutes of application under an occlusive dressing to achieve adequate penetration through intact skin for venepuncture anaesthesia. On mucous membranes (which are more permeable), onset is faster. Insufficient application time is the most common reason for EMLA failure.

Answer: (A) [Go Back to Q35](#)

Oraqix (prilocaine 2.5% / lidocaine 2.5% gel) is specifically formulated for subgingival application in periodontal pockets. It is a liquid at room temperature but gels at body temperature, remaining in the pocket and providing 20 minutes of anaesthesia for scaling and root planing. This avoids the need for infiltration injections in many cases.

Answer: (B) [Go Back to Q36](#)

The intrapapillary injection places a small amount of local anaesthetic directly into the interdental papilla. It is used in periodontal and minor soft tissue procedures where anaesthesia of a localised area of gingiva is needed. Onset is rapid due to the highly vascularised nature of the papilla, and it complements palatal or buccal blocks.

Answer: (D) [Go Back to Q37](#)

Ethyl chloride spray produces intense and rapid cooling through evaporation from the skin surface. This transient cooling freezes superficial nerve endings, causing brief cryoanaesthesia. It is used for very short procedures (incision of small abscesses, needle insertion desensitisation) and does not



involve any sodium channel blockade.

Answer: (A) [Go Back to Q38](#)

A 25 gauge, 35 mm (long) needle is standard for IANB in adults. The 25 gauge allows aspiration (thinner needles such as 30 gauge collapse during aspiration making the test unreliable) and is sufficiently stiff to resist deflection as it passes through soft tissue to reach the mandibular foramen depth. The long needle is required to reach the correct depth.

Answer: (C) [Go Back to Q39](#)

Higher anxiety is consistently associated with lower pain thresholds (increased sensitisation), higher pain intensity ratings, and greater use of analgesics post-operatively. The mechanism involves central sensitisation through limbic system activation, hypervigilance to noxious stimuli, and catecholamine release. This is well-established in both laboratory and clinical dental pain research.

Answer: (B) [Go Back to Q40](#)

The X-tip system consists of a guide sleeve and a drill that perforates the cortical bone. After perforation, the guide sleeve remains in the bone as a port through which the local anaesthetic cartridge is connected and injected into the cancellous bone. This delivers anaesthetic directly to the periapical region, bypassing the dense cortex that prevents conventional infiltration from working in the mandible.

Answer: (D) [Go Back to Q41](#)

Topazian and Goldberg described the classification of orofacial infections as primary (arising directly from the teeth – pulpitis, periapical abscess, pericoronitis) versus secondary (infections spreading through fascial spaces, arising from lymph nodes, or developing in tissue planes remote from the original source). This remains the foundational classification in oral and maxillofacial surgery texts.

Answer: (B) [Go Back to Q42](#)

Severe trismus is defined as an interincisal distance of less than 10 mm. Moderate trismus is 10–20 mm, and mild trismus is 20–30 mm. Normal mouth opening is 35–50 mm (average 40 mm). Severe trismus may compromise airway assessment and management, making it a surgical emergency in rapidly spreading infections.

Answer: (C) [Go Back to Q43](#)

Procalcitonin is the most sensitive and specific laboratory marker for bacteraemia and systemic bacterial infection (sepsis). It rises rapidly (within 2–4 hours) in response to bacterial endotoxins and cytokines. CRP and ESR are non-specific acute phase reactants that rise in both bacterial and non-bacterial inflammation. WBC count is neither sensitive nor specific for bacteraemia.

Answer: (A) [Go Back to Q44](#)

Odontogenic infections are characteristically polymicrobial, involving a mixture of aerobic streptococci (particularly the *Streptococcus milleri* group) and anaerobes (*Fusobacterium nucleatum*, *Prevotella* species, *Peptostreptococcus*). Empirical therapy should cover both. Amoxicillin-clavulanate provides excellent coverage, as does the combination of amoxicillin plus metronidazole. Clindamycin is an alternative in penicillin-allergic patients.



Answer: (D) [Go Back to Q45](#)

For uncomplicated, well-drained odontogenic infections, a 5–7 day course of antibiotics is recommended by current guidelines. Longer courses do not provide additional benefit and increase the risk of resistance, adverse effects, and *Clostridioides difficile* infection. The antibiotic treats residual bacteria after surgical drainage – drainage is the primary treatment.

Answer: (C) [Go Back to Q46](#)

Three primary reasons for failure to respond to antibiotics and drainage in odontogenic infection are: (1) a resistant or unusual organism not covered by the empirical antibiotic; (2) inadequate drainage (loculated or deep abscess not fully accessed, requiring re-exploration); and (3) immunocompromise (diabetes, HIV, immunosuppressant medication, haematological malignancy). All three must be considered and addressed.

Answer: (B) [Go Back to Q47](#)

In Marx's classification, Stage I is non-suppurative acute osteomyelitis. Stage II is suppurative osteomyelitis with sequestrum formation, pus, and sinus tracts (chronic suppurative). Stage III is chronic diffuse sclerosing osteomyelitis with extensive involvement requiring resection and reconstruction. This staging guides treatment escalation from conservative medical management to surgical resection.

Answer: (D) [Go Back to Q48](#)

AAOMS 2014 MRONJ staging: Stage 0 – no exposed bone, non-specific symptoms. Stage 1 – exposed bone, no infection. Stage 2 – exposed bone with pain and infection. Stage 3 – exposed bone with pain, infection, plus at least one of: pathological fracture, extraoral fistula, osteolysis extending to the inferior border of the mandible or the floor of the maxillary sinus. Stage 3 requires resection.

Answer: (C) [Go Back to Q49](#)

Intravenous bisphosphonates (particularly zoledronate used in oncology and osteoporosis) have a dramatically higher bioavailability and potency than oral bisphosphonates. The incidence of MRONJ with IV zoledronate in cancer patients is estimated at 1–10%, versus less than 0.1% (approximately 1 in 10,000–100,000) with oral bisphosphonates. This difference has major implications for dental treatment planning before initiating bisphosphonate therapy.

Answer: (D) [Go Back to Q50](#)

Ludwig's angina is defined as bilateral, rapidly spreading cellulitis involving the submandibular, submental, and sublingual spaces simultaneously. It causes elevation of the tongue, drooling, difficulty swallowing, and life-threatening upper airway obstruction. Treatment requires aggressive airway management (awake intubation or surgical airway), IV antibiotics, and wide surgical decompression.

Answer: (A) [Go Back to Q51](#)

In parapharyngeal space infection, the lateral pharyngeal wall is displaced medially, causing oropharyngeal obstruction. This is the most immediately life-threatening complication. Rapid progression to airway compromise can occur within hours. Cavernous sinus thrombosis, mediastinitis (from inferior spread via the danger space), and meningitis are serious delayed complications.



Answer: (A) [Go Back to Q52](#)

On CT with contrast, a drainable abscess appears as a well-defined, ring-enhancing hypodense fluid collection (the enhancing rim represents the abscess wall/pyogenic membrane). A diffuse low-density area without a discrete rim represents cellulitis, which may not be drainable. Rim enhancement is the key CT criterion for an abscess requiring incision and drainage.

Answer: (B) [Go Back to Q53](#)

Multiple Indian studies confirm that road traffic accidents (RTAs) account for 70–80% of all maxillo-facial injuries, far exceeding interpersonal violence, falls, or sports injuries. The pattern reflects the high prevalence of two-wheeler (motorcycle) use, poor road safety infrastructure, and low helmet compliance. Mandibular fractures are the most common fracture type in RTAs.

Answer: (D) [Go Back to Q54](#)

Bilateral parasymphseal (double) fractures of the mandible allow the anterior mandibular segment to fall posteriorly and inferiorly due to genioglossus and geniohyoid muscle pull, carrying the tongue backward and causing rapid upper airway obstruction. This is immediately life-threatening. Management requires pulling the mandible forward (manual or suture), securing the airway, and emergency fixation.

Answer: (C) [Go Back to Q55](#)

CT with 3D reconstruction provides detailed delineation of fracture lines, displacement, fragmentation, and soft tissue involvement that plain radiography cannot provide. It is the gold standard for complex panfacial or mid-face trauma. OPG remains useful for assessing mandibular fractures, but CT is essential for surgical planning in complex cases.

Answer: (A) [Go Back to Q56](#)

Le Fort I fracture follows Guerin's fissure, which runs horizontally through the lower third of the maxilla: through the piriform aperture walls, the lateral nasal walls, across the maxillary sinus floor, and through the pterygoid plates at the pterygomaxillary junction. The entire tooth-bearing segment of the maxilla separates from the rest of the skull, creating a mobile 'floating palate.'

Answer: (D) [Go Back to Q57](#)

The Le Fort II fracture line passes through the infraorbital region, including the infraorbital foramen or the infraorbital canal. The infraorbital nerve (V2 branch) is injured at this point, resulting in ipsilateral paraesthesia or anaesthesia of the cheek, lateral nose, upper lip, and anterior teeth. This is a cardinal sign of Le Fort II fracture.

Answer: (B) [Go Back to Q58](#)

The Le Fort III fracture line passes through the superior orbital fissure and may extend to the optic canal. Compression of the optic nerve in the optic canal or at the superior orbital fissure can cause partial or complete blindness. This is one of the most feared complications of high-energy midface trauma. Orbital apex syndrome (involving cranial nerves III, IV, V1, VI, and II) can result.

Answer: (C) [Go Back to Q59](#)

Midface fractures should be reduced and fixed within approximately 2 weeks of injury. After this time,



early fibrous union begins, making reduction increasingly difficult. Beyond 3–4 weeks, malunion becomes established and osteotomy may be required. Early ORIF (within 2 weeks) provides the best functional and aesthetic results with the lowest rate of malunion.

Answer: (D) [Go Back to Q60](#)

Rigid internal fixation (RIF) with titanium miniplates allows early mobilisation of the mandible. This has enormous clinical advantages: it facilitates airway management (no IMF), allows patients to eat and speak immediately, reduces muscle wasting and joint stiffness, improves nutrition during recovery, and promotes faster and more predictable bone healing through controlled micromotion at the fracture site.

Answer: (C) [Go Back to Q61](#)

Enophthalmos (posterior displacement of the globe) indicates increased orbital volume from floor blow-out or zygomatic complex fracture causing orbital floor collapse. Diplopia on upward gaze indicates entrapment of the inferior rectus muscle or its fascial attachments in the fracture line, preventing upward rotation of the eye. Both signs confirm orbital floor involvement.

Answer: (D) [Go Back to Q62](#)

The paediatric condyle has considerable remodelling capacity – histological studies show that the condylar cartilage can regenerate and reform following fracture, unlike the adult condyle. Conservative management (early mobilisation, physiotherapy, and monitoring) is therefore appropriate for most undisplaced or subcondylar fractures in children. Open reduction is reserved for intracapsular fractures causing severe displacement or ankylosis risk.

Answer: (A) [Go Back to Q63](#)

Bilateral condylar fractures cause loss of posterior facial height bilaterally as the condyles are displaced medially and anteriorly by the lateral pterygoid muscles. This produces a rocking effect, anteriorly rotating the mandibular body and creating a bilateral anterior open bite (the posterior teeth contact prematurely but anterior teeth cannot meet). This is pathognomonic of bilateral condylar fractures.

Answer: (B) [Go Back to Q64](#)

In NOE complex fractures, the bone bearing the medial canthal tendon (the posterior lacrimal crest) is fractured and displaced, causing lateral displacement of the medial canthus. This produces telecanthus – an increased intercanthal distance (normal 30–35 mm; telecanthus when >40 mm in adults). Telecanthus is the defining clinical sign of NOE fracture and distinguishes it from simple nasal fractures.

Answer: (C) [Go Back to Q65](#)

Rushton bodies (hyaline bodies) are eosinophilic, linear, curved, or hairpin-shaped structures found within or attached to the epithelial lining of radicular cysts. They are considered pathognomonic of radicular (periapical) cysts and are not found in other jaw cysts. Their exact nature (haematogenous vs. epithelial secretory product) is debated, but their diagnostic value is established.

Answer: (D) [Go Back to Q66](#)



OKC epithelium is distinctive: parakeratinised stratified squamous epithelium of uniform thickness (6–8 cells), with a corrugated (wavy) luminal surface and a palisaded basal layer of tall columnar cells with hyperchromatic nuclei. This regular, thin, parakeratinised lining contrasts with the thick (10–30 cell), non-keratinised, irregular lining of radicular cysts with arcading rete ridges.

Answer: (A) [Go Back to Q67](#)

Ameloblastoma is the most clinically significant neoplastic transformation associated with long-standing dentigerous cysts. The cyst lining contains reduced enamel epithelium, which can undergo ameloblastic transformation. Mucoepidermoid carcinoma and squamous cell carcinoma are reported but extremely rare. This potential for ameloblastoma transformation justifies enucleation rather than marsupialization for dentigerous cysts, with histological examination of the lining.

Answer: (B) [Go Back to Q68](#)

Carnoy's solution (absolute alcohol 6 ml, chloroform 3 ml, glacial acetic acid 1 ml, and optionally ferric chloride) is a fixative that denatures proteins on contact. It penetrates bone to a depth of approximately 1.5 mm over 5 minutes of application, devitalising satellite cysts, residual epithelial rests, and daughter cysts within the bony walls. This significantly reduces OKC recurrence rates compared to enucleation alone.

Answer: (C) [Go Back to Q69](#)

Very large OKCs (involving most of the mandible or encasing the inferior alveolar nerve) carry high risk of pathological fracture if immediately enucleated. Marsupialization reduces intra-cystic pressure, allows the cyst to shrink over months, and facilitates safer subsequent enucleation of the now-smaller lesion with better access and lower complication risk. It does not eliminate the need for eventual complete enucleation.

Answer: (A) [Go Back to Q70](#)

The WHO 2017 classification divides odontogenic cysts into inflammatory and developmental categories. Inflammatory odontogenic cysts include: radicular cyst (apical and lateral variants), collateral/paradental cyst, and inflammatory collateral cyst. Developmental cysts include: dentigerous cyst, lateral periodontal cyst, gingival cyst (of infants and adults), OKC, calcifying odontogenic cyst (Gorlin cyst), and others. OKC remains in the developmental category.

Answer: (B) [Go Back to Q71](#)

A radicular cyst (periapical cyst) occurs at the apex of a non-vital tooth. It is the most common jaw cyst (65% of all jaw cysts). When large, it expands the cortical plate. Periapical granulomas can cause periapical rarefaction but do not cause bony expansion. The non-vital tooth and apical location are diagnostic keys.

Answer: (C) [Go Back to Q72](#)

Cyst enucleation (Partsch II operation) refers to complete removal of the entire cyst lining and wall from the bony cavity in one piece (or multiple pieces), leaving the bony cavity which heals by secondary intention with blood clot and new bone formation. It is distinct from marsupialization (which is decompression/partial removal) and excision (which includes the surrounding bone/tissue margins).



Answer: (D) [Go Back to Q73](#)

OKC has a characteristic tendency to grow in an anteroposterior direction within the medullary bone with scalloped borders, causing root displacement without resorption and without significant buccolingual expansion. It occurs most commonly in the posterior mandible and ramus in young adults. The association with vital teeth (not at the apex of non-vital teeth) and scalloped borders distinguishes it from a radicular cyst.

Answer: (B) [Go Back to Q74](#)

OKC characteristically grows along the medullary space in an anteroposterior direction with minimal buccolingual bone expansion relative to its size. This is because the thin epithelial lining grows through cancellous bone without stimulating the periosteal expansion seen in ameloblastoma or dentigerous cysts. CBCT demonstrates this growth pattern distinctly, with minimal cortical expansion despite a large lesion.

Answer: (B) [Go Back to Q75](#)

In the WHO 2017 classification, desmoplastic ameloblastoma was previously listed as a distinct subtype but is now grouped under 'conventional ameloblastoma' along with follicular and plexiform subtypes. The four main categories are: conventional (solid/multicystic) ameloblastoma, unicystic ameloblastoma, extraosseous/peripheral ameloblastoma, and metastasising ameloblastoma. Unicystic ameloblastoma has the most favourable prognosis.

Answer: (A) [Go Back to Q76](#)

Desmoplastic ameloblastoma is unique in its radiographic appearance: it typically shows a mixed radiolucent-radiopaque (soap bubble or honeycombed) pattern, resembling fibro-osseous lesions. It has a predilection for the anterior maxilla (unlike conventional ameloblastoma which favours the posterior mandible). This unusual presentation leads to frequent misdiagnosis as an ossifying fibroma or fibrous dysplasia pre-biopsy.

Answer: (C) [Go Back to Q77](#)

Ameloblastic carcinoma is distinguished from benign ameloblastoma by the presence of cytological features of malignancy: nuclear pleomorphism, increased mitotic activity, atypical mitoses, necrosis, and perineural invasion. Additionally, ameloblastic carcinoma has the capacity to metastasise, most commonly to the cervical lymph nodes and lungs. Treatment requires oncological resection with margins plus neck dissection.

Answer: (D) [Go Back to Q78](#)

Clear cell odontogenic carcinoma characteristically harbours an EWSR1-ATF1 gene fusion (or less commonly EWSR1-CREM), detectable by fluorescence in situ hybridisation (FISH) or reverse transcriptase PCR. This molecular finding helps distinguish it from other clear cell tumours of the jaw (e.g., metastatic renal cell carcinoma, clear cell variant of calcifying epithelial odontogenic tumour). It is an aggressive malignancy with a high recurrence rate.

Answer: (C) [Go Back to Q79](#)

Jaw metastases typically appear as ill-defined, irregular radiolucencies on plain radiography. Characteristic features include the 'floating teeth' appearance (loss of the lamina dura with teeth appearing



to float in space due to destruction of the supporting bone), widened periodontal ligament spaces, and multiple punched-out radiolucencies (classic in multiple myeloma). These features reflect the destructive, infiltrative nature of metastatic disease.

Answer: (A) [Go Back to Q80](#)

Breast carcinoma is the most common primary tumour to metastasise to the jaw in females, accounting for approximately 30% of all jaw metastases in women. In males, the order is prostate > lung > kidney. Overall, the order in combined series is breast > lung > kidney > colorectal. The mandible (particularly the premolar-molar region and angle) is more commonly affected than the maxilla.

Answer: (D) [Go Back to Q81](#)

Ghost cell odontogenic carcinoma (malignant calcifying cystic odontogenic tumour) shares the ghost cell and dentinoid components of its benign counterpart (CCOT/Gorlin cyst) but exhibits infiltrative growth, nuclear pleomorphism, increased mitosis, necrosis, and recurrence with metastasis. The malignant cytological features are the defining difference. Treatment requires wide surgical resection.

Answer: (B) [Go Back to Q82](#)

Primary intraosseous squamous cell carcinoma (PIOC) arises centrally within the jaw bone, completely surrounded by bone, with no connection to the overlying oral mucosal epithelium. It is presumed to arise from odontogenic epithelial rests (rests of Malassez, Serres, or Hertwig's epithelial root sheath). This distinguishes it from gingival SCC invading bone secondarily (which is central extension of surface SCC, not a primary intraosseous tumour).

Answer: (C) [Go Back to Q83](#)

RDC/TMD is a dual-axis research and clinical diagnostic tool. Axis I provides physical/clinical diagnoses (muscle disorders, disc displacement, articular disorders) based on clinical examination. Axis II assesses the psychosocial dimensions: characteristic pain intensity and disability (Graded Chronic Pain Scale), depression and somatisation (SCL-90-R subscales), and jaw function limitations. Axis II recognises that chronic TMD has strong psychosocial components.

Answer: (B) [Go Back to Q84](#)

According to the International Classification of Sleep Disorders (ICSD), sleep bruxism is classified as a sleep-related movement disorder. It is characterised by rhythmic masticatory muscle activity (RMMA) occurring during sleep, typically in the NREM sleep Stage 2. EMG polysomnography is the gold standard for diagnosis. It is distinct from REM sleep behaviour disorder and from awake (diurnal) bruxism, which is a parafunctional habit.

Answer: (A) [Go Back to Q85](#)

Gingival hyperplasia is not a recognised consequence of bruxism. It can be caused by certain medications (phenytoin, cyclosporin, calcium channel blockers) or by poor oral hygiene. The recognised consequences of chronic bruxism include: tooth attrition and wear, fracture of teeth and restorations, masseter and temporalis muscle hypertrophy, temporomandibular joint pain and dysfunction, headache, and scalloped tongue or linea alba from chronic cheek biting.

Answer: (D) [Go Back to Q86](#)



Botulinum toxin type A (Botox) injected into the masseter muscle cleaves the SNAP-25 protein, preventing fusion of acetylcholine-containing vesicles with the presynaptic membrane at the neuromuscular junction. This blocks acetylcholine release, causing temporary chemical denervation of the masseter, reducing its hyperactivity and thereby decreasing parafunctional clenching and grinding forces. Effects last 3–6 months and repeated injections cause progressive masseter atrophy.

Answer: (C) [Go Back to Q87](#)

The TMJ is one of the most commonly involved joints in JIA. Chronic synovitis and inflammation destroy the condylar cartilage and inhibit normal condylar growth. In growing children, this leads to bilateral condylar hypoplasia, reduced posterior facial height, retrognathia (mandibular retrusion), and a bilateral posterior open bite (anterior rotation of the mandible). Long-term management may require total alloplastic TMJ replacement once growth is complete.

Answer: (D) [Go Back to Q88](#)

Idiopathic condylar resorption predominantly affects adolescent and young adult females (typically aged 15–35). It is often triggered or accelerated by orthodontic treatment (especially long-term Class II elastics or mandibular retraction) or orthognathic surgery. The condyles resorb progressively, causing loss of posterior facial height, anterior open bite, and mandibular retrusion. Oestrogen receptor expression in condylar tissue may explain the female predilection.

Answer: (B) [Go Back to Q89](#)

Fonseca's anamnestic index is a patient-reported questionnaire comprising 10 questions about TMD symptoms (joint sounds, pain, headache, clenching, etc.). Responses are scored and the patient is classified into four groups: no TMD (0–15 points), mild TMD (20–45 points), moderate TMD (50–65 points), or severe TMD (70–100 points). It is widely used in epidemiological studies for TMD prevalence assessment.

Answer: (C) [Go Back to Q90](#)

Large mandibular advancements (>10 mm) stretch the retrodiscal tissues and condylar attachments, creating condylar torque and compressive forces that can trigger progressive condylar resorption (PCR) post-surgically. Young women with pre-existing signs of condylar resorption (ICR) are at highest risk. PCR causes skeletal relapse with loss of correction. This is a major long-term concern requiring monitoring and sometimes revision surgery or total joint replacement.

Answer: (A) [Go Back to Q91](#)

Presurgical orthodontics deliberately decompensates dental inclinations that have developed as a natural compensation for the skeletal discrepancy. For example, in a Class III patient, the upper incisors procline and lower incisors retrocline as dental compensations. Presurgical orthodontics reverses these compensations (upright the lower incisors, retract the upper incisors), which temporarily worsens the appearance and occlusion but is necessary to allow the full skeletal correction to be achieved surgically.

Answer: (D) [Go Back to Q92](#)

Consent for orthognathic surgery must specifically address: inferior alveolar nerve paraesthesia (in BSSO, estimated 70–80% transient, 5–10% permanent), risk of skeletal relapse (may require further



surgery), potential need for blood transfusion (especially in Le Fort I with pterygoid plate separation), and risk of TMJ changes including progressive condylar resorption. These risks are unique to orthognathic surgery and not typical of routine oral surgery consent.

Answer: (C) [Go Back to Q93](#)

Post-surgical orthodontics is typically commenced at 6–8 weeks post-operatively, when early bone healing (callus formation) provides sufficient stability to allow engagement of archwires and light orthodontic forces. The goals are: detailing the occlusion (settling posterior teeth, closing minor spaces), achieving ideal root parallelism, and preparing the dentition for retention. Starting too early risks disrupting the healing osteotomy.

Answer: (B) [Go Back to Q94](#)

Multiple systematic reviews and meta-analyses confirm significant improvements in patient-reported outcome measures (PROMs) after orthognathic surgery, including: Oral Health Impact Profile (OHIP-14) scores, facial satisfaction questionnaires, self-esteem scales (Rosenberg), and general quality of life tools (SF-36). Improvements are maintained long-term (>5 years). The psychosocial benefits are a major justification for orthognathic treatment in appropriately selected patients.

Answer: (A) [Go Back to Q95](#)

Post-operative physiotherapy (jaw exercises – opening, lateral excursions, protrusion) prevents scar contracture at the osteotomy sites and maintains mandibular range of motion, especially after BSSO. Dietary guidance progresses from clear liquids (first week) to full liquids (week 2), pureed/soft foods (weeks 3–6), and normal foods (after bone healing at 6–8 weeks). This progression ensures adequate nutrition while protecting the healing osteotomies from excessive load.

Answer: (C) [Go Back to Q96](#)

Labial frenectomy is indicated when the maxillary labial frenulum inserts at or near the alveolar crest (causing a diastema by acting as a mechanical barrier to closure) and a positive blanch test is present – when the lip is stretched superiorly, the incisive papilla blanches due to tension on the frenulum. This confirms the frenulum is attached to the interdental papilla/crest. A high attachment without blanching does not require surgery.

Answer: (A) [Go Back to Q97](#)

The modified Kotlow classification grades ankyloglossia by the length of free tongue (tongue tip to frenulum attachment). Class III (tongue-tie): free tongue length 8–12 mm. Class IV (complete tongue-tie): free tongue length less than 8 mm. Class III and IV typically cause significant functional impairment (breastfeeding difficulty in neonates, articulation disorders in older children and adults) and benefit from lingual frenectomy.

Answer: (D) [Go Back to Q98](#)

The clinical triad of new-onset severe unilateral or bilateral temporal headache, jaw claudication (pain in the masseter or tongue on prolonged chewing due to ischaemia of the masticatory muscles), and elevated ESR (>50 mm/hour, often >80) in a patient over 50 years is a medical emergency: giant cell arteritis (GCA). Without urgent corticosteroid therapy, GCA can cause irreversible ischaemic optic neuropathy and blindness within hours to days. A temporal artery biopsy should be arranged but



treatment must not be delayed pending biopsy results.

Answer: (B) [Go Back to Q99](#)

Carbamazepine (an anticonvulsant) blocks voltage-gated sodium channels, stabilising neuronal membranes and preventing the high-frequency repetitive firing of ectopic action potentials responsible for the lancinating pain of trigeminal neuralgia. It is the first-line drug with approximately 70–80% initial response rate. Dose titration is required, and blood monitoring (FBC, LFTs, sodium) is mandatory due to risks of agranulocytosis, hyponatraemia, and hepatotoxicity.

Answer: (C) [Go Back to Q100](#)

Microvascular decompression (Jannetta procedure) is the treatment of choice for medically fit patients with classical trigeminal neuralgia where neurovascular compression of the trigeminal root entry zone is confirmed on MRI (high-resolution FIESTA/CISS sequence). MVD moves the offending blood vessel (usually the superior cerebellar artery) away from the trigeminal root and interposes a Teflon sponge. It is the only surgical procedure that addresses the underlying cause without destroying nerve fibres, and provides the highest long-term pain-free rates (80% at 10 years) compared to ablative procedures.

