A 3 year old presents with subluxated maxillary central incisors. What is the most appropriate management?

A. Reposition the teeth and place child on a soft diet.
B. Reposition the teeth and splint for 7 – 10 days.
C. Place child on a soft diet and monitor the teeth.
D. Extract the traumatized teeth.

A 70-year old female has consumed optimal levels of fluorides all her life. You would expect to find a decreased incidence of

2. osteoporosis.
3. hyperparathyroidism.
4. dental caries.

Which of the following unilateral fixed partial dentures is most likely to have insufficient periodontal support? A fixed partial denture extending from the

A. maxillary first premolar to the first molar.
B. maxillary canine to the first molar.
C. mandibular central incisor to the first premolar.
D. mandibular second premolar to the second molar.

Function(s) of the dental pulp include(s)

1. defensive.
2. sensory.
3. circulatory.
4. dentin repair.

Which of the following oral diseases are largely preventable through lifestyle adjustments?

1. Dental caries.
2. Periodontal disease.
3. Oral malignancies.
4. Cleft lip and palate.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which disorder is associated with hypercementosis of teeth?

A. Paget’s disease.
B. Fibrous dysplasia.
C. Cherubism.
D. Hyperparathyroidism.

When a second canal is located in mandibular incisors, it is most frequently found

A. labial to the main canal.
B. lingual to the main canal.
C. mesial to the main canal.
D. distal to the main canal.

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A patient presents with hypodontia, conical teeth, fine, scanty, fair hair, and an intolerance to hot weather. The most likely diagnosis is

A. achondroplasia.
B. malignant hyperthermia.
C. ectodermal dysplasia.
D. cystic fibrosis.

Radiographic examination reveals early evidence of internal resorption. Which is the most appropriate initial management?

A. Perform an apicoectomy.
B. Perform a pulp extirpation.
C. Perform a pulpotomy.
D. Observe and re-evaluate in 3-6 months.

Side effects of therapeutic doses of codeine can include

1. constipation.
2. drowsiness.
3. nausea.
4. respiratory depression.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Excessively dark radiographs are the result of

1. underdevelopment.
2. overexposure.
3. backward placement of the film.
4. excessive milliamperage.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

What is the most likely cause of long term clinical failure for a metal-ceramic crown with porcelain occlusal coverage on a molar?

A. Recurrent caries.
B. Cohesive porcelain fracture.
C. Adhesive porcelain fracture.
D. Loss of retention.

Odontogenic infections can spread by

A. direct extension.
B. lymphatics.
C. ingestion.
D. All of the above.

Primary herpes simplex virus infection

A. usually occurs after the age of 20.
B. has a slow onset.
C. may be subclinical.
D. lasts for 1 - 2 days.
E. affects only the gingiva.

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Which of the following presents with high serum calcium levels, thinning of cortical bone and giant cell osteoclasts in the jaw and drifting teeth?

A. Hyperthyroidism.
B. Hyperparathyroidism.
C. Hypothyroidism.
D. Hypoparathyroidism.

Which of the following may result in acetone breath?

A. Prolonged fasting.
B. High carbohydrate diet.
C. High protein diet.
D. Poor oral hygiene.

Papillary hyperplasia under a denture is usually due to

A. a candida infection.
B. an ill fitting denture.
C. failure to remove the denture at night.
D. an allergy to the denture material.

The anatomical landmarks used to help establish the location of the posterior palatal seal of a maxillary complete denture include the

A. pterygomaxillary notches and the fovea palatinae.
B. pterygomaxillary notches and the posterior nasal spine.
C. posterior border of the tuberosities and the posterior border of the palatine bone.
D. anterior border of the tuberosities, the palatine raphe and the posterior border of the palatine bone.

The finding of “acid-fast” microorganisms in sputum suggests the presence of

A. Mycobacterium tuberculosis.
B. Diplococcus pneumoniae.
C. Streptococcus pyogenes.
D. Neisseria gonorrhoeae.

Conventional glass ionomer cements

A. elicit less pulp response than zinc-oxide and eugenol cements.
B. do not require a protective liner, such as calcium hydroxide in a deep preparation.
C. have a lower modulus of elasticity than zinc phosphate cements.
D. bond mechanically to calcium in enamel and dentin.
E. are superior to zinc phosphate cement for luting porcelain (all ceramic) crowns.

A nonsurgical endodontic treatment was completed on tooth 1.6 six months ago. The temporary restoration was lost two months ago. The tooth has no caries or fractures. All cusps are present but are weak and unsupported. What is the most appropriate management prior to placing a full gold crown?

A. Placing a bonded composite resin restoration to seal the access.
B. Post placement in the palatal canal followed by a core build-up.
C. Removal of 4-5mm of coronal gutta-percha from all canals followed by a core build-up.
D. Endodontic retreatment followed by a core build-up.
When using fixed orthodontic brackets, teeth will commonly

1. tip.
2. translate.
3. rotate.
4. intrude.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following is correct?

A. Supragingival calculus does not rely on salivary minerals for its calcification.
B. Subgingival calculus is a by-product of streptococci mutans.
C. Subgingival calculus is an initiating factor in periodontal disease.
D. All of the above.

In an 80 year old patient you would expect

1. a reduced size of the pulp chamber.
2. increased incidence of pulp stones.
3. increased tendency to pulpal fibrosis.
4. an increased pulpal vascularity.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Clinical examination of a 42 year old heavy smoker reveals a white patch in the retromolar/tonsillar pillar region. The patch cannot be wiped off. The most likely diagnosis is

A. lichen planus.
B. leukoplakia.
C. white sponge nevus.
D. frictional hyperkeratosis.
E. pseudomembranous candidiasis.

Which valve is most commonly affected by rheumatic heart disease?

A. Aortic.
B. Pulmonary.
C. Tricuspid.
D. Mitral.

In pin-retained restorations, the pin holes should be parallel to the

A. long axis of the tooth.
B. nearest external surface.
C. pulp chamber.
D. axial wall.

Which of the following foods is the most cariogenic?

A. Cheese.
B. Dark chocolate.
C. Jam.
D. Toffee.

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Which of the following provide the longest duration of anesthesia?

A. Lidocaine 2% with 1:100,000 epinephrine.
B. Prilocaine 4% with 1:200,000 epinephrine.
C. Bupivacaine 0.5% with 1:200,000 epinephrine.
D. Articaine 4% with 1:100,000 epinephrine.

Glass ionomer cements contain

A. zinc oxide and distilled water.
B. zinc oxide and polyacrylic acid.
C. fluoro alumino silica powder and orthophosphoric acid.
D. fluoro alumino silica powder and polyacrylic acid.

A 6 year old patient has a larger than average diastema between the maxillary central incisors. The radiographic examination shows a mesiodens. In order to manage the diastema, you should extract the mesiodens

A. after its complete eruption.
B. once the patient has reached the age of 12.
C. only if it develops into a cystic lesion.
D. as soon as possible.

After completion of endodontic chemomechanical debridement you can expect to have

1. removed all tissue from the entire root canal system.
2. machined the canals to a microscopically smooth channel.
3. caused some temporary inflammation.
4. sterilized the root canal.
5. left some areas of the root canal system incompletely cleaned.

A Le Fort I or Guerin fracture is a

A. fracture of the zygomatic arch.
B. horizontal fracture of the maxilla.
C. fracture of the malar complex involving the floor of the orbit.
D. pyramidal fracture of the maxilla.
E. craniofacial dysjunction.

The permanent teeth most frequently to become ankylosed are

A. canines.
B. incisors.
C. molars.
D. premolars.

During periodontal disease activity, the loss of clinical attachment

A. precedes alveolar bone loss.
B. follows alveolar bone loss.
C. is concomitant with alveolar bone loss.
Properties of glutaraldehyde include

1. rapid formation of cross linkages which limit penetration of pulp tissue.
2. minimal effect on pulp tissues.
3. excellent disinfection against oral flora.
4. minimal effectiveness against viruses and spores.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

In an edentulous patient, the coronoid process

A. limits the distal extent of the mandibular denture.
B. affects the position and arrangement of posterior teeth.
C. aids in determining the location of the posterior palatal seal.
D. limits the thickness of the maxillary buccal denture flange.

The best way to protect the abutments of a Class I removable partial denture from the negative effects of the additional load applied to them is by

A. splinting abutments with adjacent teeth.
B. keeping a light occlusion on the distal extensions.
C. placing distal rests on distal abutments.
D. using cast clasps on distal abutments.
E. regular relining of the distal extensions.

When percussion on the occlusal surface of a tooth results in a positive response, the most likely etiology of inflammation is

A. pulpal.
B. periodontal.
C. periapical.

A patient has an acute periradicular abscess on tooth 1.3. The tooth must be extracted. In addition to a palatine injection, the most appropriate local anesthetic technique is a/an

A. buccal infiltration.
B. infraorbital block.
C. middle superior alveolar block.
D. intraligamentary injection.

A large encapsulated tumor is removed from the hard palate. It is filled with fluid. The best method of determining the nature of this lesion is to

A. examine the fluid under a microscope.
B. culture the fluid and examine for bacterial growth.
C. submit the tissue for histological examination
D. submit the tissue for exfoliative cytological study.
E. aspirate the fluid for electrophoresis study.

The Silness-Löe Index measures

A. periodontal disease.
B. oral hygiene.
C. attachment level.
D. probing depth.

Caries in older persons is most frequently found on which of the following locations?

A. Pits and fissures.
B. Proximal enamel.
C. Root surfaces.
D. Incisal dentin.

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A line angle NOT present on a Class I cavity preparation on tooth 1.6 is

A. mesiopulpal.
B. buccopulpal.
C. linguopulpal.
D. axiopulpal.
E. None of the above.

Which of the following has the potential for malignant transformation?

A. Osteomalacia.
B. Albright's syndrome.
C. Paget's disease.
D. Osteogenesis imperfecta.

A 4 year old child presents with a history of trauma and an asymptomatic discoloured primary maxillary left incisor. A periapical radiograph reveals no abnormalities. The most appropriate management is a/an

A. regular recall for observation.
B. pulpotomy.
C. pulpectomy.
D. extraction.

A 50 year old man, who is a heavy smoker, has developed a barrel chest, has difficulty breathing and has a bluish tinge to his complexion. The most likely diagnosis is

A. emphysema.
B. acute upper respiratory infection.
C. primary cancer of the lung.
D. cardiac insufficiency.

Which permanent maxillary molar root has a higher incidence of two canals?

A. Distobuccal root of the first molar.
B. Distobuccal root of the second molar.
C. Mesiobuccal root of the first molar.
D. Mesiobuccal root of the second molar.

During the extraction of an impacted tooth 3.8 the lingual nerve is damaged. All of the following can occur EXCEPT a

A. loss of taste from the anterior 2/3 on the left side of the tongue.
B. deviation of the tongue to the left on protrusion.
C. decreased salivary output from the left sublingual gland.
D. decreased salivary output from the left submandibular gland.
E. numbness of the floor of the mouth on the left side.

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A lateral cephalometric radiograph for a patient with a 3mm anterior functional shift should be taken with the patient in

A. maximum intercuspation.
B. initial contact.
C. normal rest position.
D. maximum opening.
E. protrusive position.

Gold contributes which of the following properties to a gold-copper alloy?

A. Corrosion resistance.
B. Increased strength.
C. Lowered specific gravity.
D. Increased hardness.

Which of the following should NOT be prescribed for a patient receiving warfarin (Coumadin®)?

1. Acetylsalicylic acid.
2. Oxycodone.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

In gingivitis, the sulcular epithelium

1. is a barrier to bacterial invasion.
2. is permeable to bacterial enzymes and toxins.
3. may be ulcerated.
4. undergoes both degenerative and proliferative changes.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The most appropriate treatment for a vital primary molar with carious pulp exposure and cusp fracture is a/an

A. calcium hydroxide pulp cap and amalgam restoration.
B. formocresol pulpotomy and stainless steel crown.
C. calcium hydroxide pulp cap and composite resin restoration.
D. extraction and placement of a space maintainer.

Upon setting, a mixture of plaster of Paris and water will exhibit

A. loss in compressive strength.
B. expansion.
C. gain in moisture content.
D. contraction.

Ultrasonic scalers are most effective in

A. removal of supragingival calculus.
B. removal of subgingival calculus.
C. removal of toxins from cementum.
D. planing root surfaces.

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Immediately after the extraction of a tooth, postoperative instructions should include

1. analgesics.
2. regular diet.
3. application of cold.
4. frequent rinsing of the socket.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The most appropriate treatment following the extraction of a first primary molar in a 4 year old child is

A. regular assessment of arch development.
B. to perform space analysis.
C. insertion of a space maintainer.
D. extraction of the contra-lateral molar.
E. extraction of the opposing molar.

An infant has asymptomatic small whitish outgrowths at the junction of the soft palate and hard palate. What is the most likely diagnosis?

A. Dental lamina cysts.
B. Epstein pearls.
C. Bohn nodules.
D. Fordyce granules.

During the setting phase, a dental stone mixture will exhibit

A. expansion.
B. contraction.
C. loss in compressive strength.
D. gain in moisture content.

Which of the following statements about sodium is correct?

A. Salt-sensitive people should avoid foods like oranges and bananas.
B. A high salt intake aggravates but does not cause hypertension.
C. Renal sodium excretion varies indirectly with total sodium intake.
D. The sodium recommendation is increased during pregnancy.

The predominant type of movement produced by a finger spring on a removable appliance is

A. torque.
B. tipping.
C. rotation.
D. translation.
Histoplasmosis is a  
A. non-specific bacterial infection.  
B. protean disease.  
C. viral disease.  
D. fungal disease.

A smooth-surface proximal carious lesion  
A. initially begins as an enamel defect in the contact area.  
B. in enamel, can be depicted as a cone with the apex of the cone at the dentino-enamel junction.  
C. in enamel, can be depicted as a cone with the base of the cone at the dentino-enamel junction.  
D. initially begins as a subgingival enamel defect covered with plaque.

Zinc-oxide-eugenol cements are less soluble than  
A. zinc phosphate cements.  
B. Bis-GMA resin cements.  
C. glass ionomer cements.  
D. calcium hydroxide cements.

A carious lesion on tooth 1.6 appears close to the pulp on the bitewing radiograph. A diagnosis of irreversible pulpitis can be made based on  
A. proximity of the radiolucency to the pulp.  
B. a lower electric pulp test reading compared to the control.  
C. the symptoms reported by the patient.

The most common permanent teeth to be transposed are the  
A. mandibular incisor and mandibular canine.  
B. mandibular canine and mandibular first premolar.  
C. maxillary upper lateral incisor and maxillary canine.  
D. maxillary canine and maxillary first premolar.

Which of the following is a proliferative response of the soft tissue to an irritant?  
A. Cellulitis.  
B. Abscess.  
C. Pyogenic granuloma.  
D. Aphthous ulcer.

A patient complains of acute pain 24 hours after the insertion of a restoration in a tooth with no preexisting periapical pathology. The tooth is vital and tender to percussion. The radiograph will show  
A. an apical radiolucency.  
B. acute osteitis.  
C. root resorption.  
D. condensing osteitis.  
E. normal lamina dura.

A hinge axis facebow records  
A. Bennett angle.  
B. centric relation.  
C. lateral condylar inclination.  
D. horizontal condylar inclination.  
E. opening and closing axis of the mandible.
A common filler added to resin to produce dental composites is

A. calcium salt.
B. quartz.
C. zinc oxide.

The radicular or root-end cyst occurs as a result of

A. trauma.
B. pulpal necrosis.
C. hyperparathyroidism.
D. poorly calcified bone.

Histological sections of a lesion removed from the apex of a carious tooth show immature fibrous tissue and chronic inflammatory cells. The most likely diagnosis is a/an

A. acute periapical abscess.
B. odontogenic fibroma.
C. radicular cyst.
D. periapical granuloma.
E. central fibroma.

A crown margin can be extended subgingivally when required

1. for esthetics.
2. to increase retention.
3. to reach sound tooth structure.
4. for caries prevention.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A reciprocal clasp arm on a removable partial denture will provide

1. resistance to horizontal force.
2. indirect retention.
3. stabilization.
4. direct retention.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

During guided tissue regeneration therapy, the regenerative cells originate primarily from the

A. lamina propria.
B. periodontal ligament.
C. cellular cementum.
D. collagen membrane.

Erratic and inconsistent electric pulp test results can be explained by

A. the presence of multiple canals in various stages of pulp pathosis.
B. failure to isolate and dry the tooth.
C. pulpal calcification.
D. poor contact between the electrode and the tooth.
E. All of the above.

Which of the following plasma proteins has the greatest ability to bind drugs?

A. Albumin.
B. Fibrinogen.
C. Hemoglobin.
D. Gamma globulin.
E. B-lipoprotein.
The amount of radiation to a patient can be reduced by

1. using a high speed film.
2. using an aluminum filter.
3. using low kVp.
4. increasing target-film distance.
5. decreasing target-film distance.

A. (1) (2) (3) (4)
B. (1) (2) (4)
C. (1) (3) (5)
D. (2) (3) (4)
E. (2) (3) (5)

High humidity in a room where zinc oxide and eugenol impression paste is being mixed will

A. increase the setting time.
B. not affect the setting.
C. prevent any setting.
D. decrease the setting time.

Which of the following drug groups can cause xerostomia?

1. Diuretics.
2. Antibiotics.
3. Antidepressants.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The absence of adequate drainage in a periodontal pocket may result in

A. cyst formation.
B. abscess formation.
C. epithelial hyperplasia.
D. increased calculus formation.

Irreversible hydrocolloid materials are best removed from the mouth by

A. a quick snap.
B. a slow teasing motion.
C. twisting and rocking.
D. having the patient create a positive pressure.

Following curettage and root planing, reduction in pocket depth is due to

A. shrinkage of the gingival tissue.
B. reattachment.
C. epithelial "adhesion" to the tooth.
D. healing of connective tissue.
E. All of the above.

In radiology, if target-skin distance is doubled, the exposure time must be

A. doubled.
B. tripled.
C. quadrupled.
D. increased 10 times.
Which of the following is/are (an) acceptable mean(s) to obtain the gingival retraction that is needed when using an elastomeric impression material for making a final impression in fixed prosthodontics?

1. Electrosurgery.
2. A moist retraction cord.
3. A copper band that is removed when the impression is made.
4. Using a heavy body material in the impression tray.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The gingivectomy approach to pocket elimination results in

A. healing by primary intention.
B. adequate access to correct irregular osseous contours.
C. retention of all or most of the attached gingiva.
D. None of the above.

A 45 year old patient has 32 unrestored teeth. The only defects are deeply stained grooves in the posterior teeth. Clinical examination reveals no evidence of caries in the grooves. The treatment of choice is

A. application of cyanoacrylate pit and fissure sealants.
B. application of BIS-GMA pit and fissure sealants.
C. conservative Class I amalgams.
D. prophylactic odontotomy.
E. no treatment.

Radiographs of the mandibular incisor teeth of a 45 year old healthy black female patient reveal periapical radiolucencies. The teeth are vital and asymptomatic. You would

A. perform a biopsy of the radiolucent lesion.
B. perform endodontic therapy on the four incisors.
C. place a drain in the affected area.
D. observe periodically.

In removable partial denture design, the surface of the abutment tooth most often altered to provide clasp reciprocity is

A. mesial.
B. distal.
C. occlusal.
D. buccal.
E. lingual.

Epinephrine is added to local anesthetic formulations in order to

1. increase duration of anesthesia.
2. increase depth of anesthesia.
3. reduce likelihood of systemic toxicity.
4. reduce likelihood of allergic reaction.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.
Which of the following will result in splitting of developing roots?

A. Epithelial diaphragm forms too many lateromedial extensions.
B. Dental follicle cells migrate into the epithelial diaphragm.
C. Cementoblasts fail to develop on and stabilize the root’s surface.
D. Periodontal ligament forms too soon.

Trismus is most frequently caused by

A. tetanus.
B. muscular dystrophy.
C. infection.
D. mandibular fracture.

A smooth, elevated, red patch devoid of filiform papillae, located in the midline of the dorsum of the tongue immediately anterior to the circumvallate papillae is indicative of

A. benign migratory glossitis.
B. median rhomboid glossitis.
C. a granular cell tumor.
D. iron deficiency anemia.
E. a fibroma.

In primary molars, radiographic bony changes from an infection are initially seen

A. at the apices.
B. in the furcation area.
C. at the alveolar crest.
D. at the base of the developing tooth.

Which of the following “in office” preventive procedures is most practical and effective for an uncooperative 4-year old patient from a non-compliant family?

A. Oral hygiene instruction.
B. Dietary counseling.
C. Fluoride varnish every six months.
D. Fluoride supplements.
E. Pit and fissure sealants on all primary molars.
The fusion which contributes to the formation of the upper lip is the one between

A. maxillary and mandibular processes.
B. maxillary and lateral nasal processes.
C. maxillary and medial nasal processes.
D. medial and lateral nasal processes.
E. lateral and medial palatine processes.

An excisional biopsy of a nodule 5mm in diameter on the lateral border of the tongue was diagnosed as a fibroma. This patient should have

A. hemisection of the tongue.
B. radiotherapy to site of biopsy.
C. no additional therapy.
D. re-excision with wider margins.
E. radium implantation around biopsy site.

After many caries free years a 78 year old patient develops multiple root surface caries. This is most likely the result of

A. changes in cementum composition.
B. exposure of the cementoenamel junctions.
C. decreased salivary flow.
D. changes in dietary pattern.

Root canal filling pastes containing paraformaldehyde

A. can be used routinely because of their antibacterial action.
B. reduce the incidence of post-operative pain.
C. are considered to be below the standard of care in Canada.
D. do not cause systemic toxicity.
E. are well tolerated by periradicular tissues.

After latex gloves have been put on, washing the gloved hands with an antimicrobial soap

A. adds a further layer of safety to barrier protection.
B. is unnecessary but acceptable practice.
C. can compromise the integrity of the glove.
D. should be done if a surgical procedure is planned.

The canal of a maxillary canine has been instrumented to within 1mm of the apex and is ready to be obturated. A radiograph indicates that the master cone is 2.5mm short of the apex. The most appropriate management is to

A. proceed with the filling as the cone is within acceptable limits.
B. fit a larger cone within 2mm of the apex.
C. cut the cone 1mm and insert.
D. discard the cone and fit a smaller one.

Botulinum neurotoxins cause which type of paralysis?

A. Spastic.
B. Flaccid.
C. Periodic.
D. Brachiofacial.

When a patient experiences continuous pain in the maxillary premolar and molar areas and there is no evidence of dental infection, the most likely diagnosis is

A. trigeminal neuralgia.
B. acute maxillary sinusitis.
C. impacted maxillary canine.
D. impacted maxillary third molar.
E. glossopharyngeal neuralgia.

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An acute periapical abscess must be associated with

1. pain.
2. sensitivity to percussion.
3. non-vital tooth.
4. periapical radiolucency.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

For which of the following is nystatin oral suspension an appropriate treatment?

A. Herpetic gingivostomatitis.
B. Nicotinic stomatitis.
C. Denture stomatitis.
D. Aphthous stomatitis.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

In chewing, maximum contact between teeth occurs in the position of

A. habitual occlusion.
B. lateral excursion on the non-working side.
C. protrusive excursion.
D. All of the above

Which of the following are signs of aggressive periodontitis?

1. Rapid attachment loss.
2. Suspected periodontal microbial pathogens.
3. Onset before the age of 35.
4. Ulcerations of the gingiva.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The major stimulator of respiration is

A. low blood pressure.
B. high percentage of blood oxygen.
C. low percentage of blood carbon dioxide.
D. high percentage of blood carbon dioxide.

Stiffness of wire is a function of

1. length of the wire segment.
2. diameter of the wire segment.
3. alloy composition.
4. microstructure.

The metabolic clearance of which of the following drugs is NOT reduced in an elderly patient?

A. Carbamazepine.
B. Warfarin.
C. Morphine.
D. Clindamycin.

A 65 year old patient who has recovered from a stroke 6 months previously and has a history of endocarditis requires the extraction of a mandibular molar. The vital signs are

Blood Pressure: 135/85 mmHg
Pulse: 76/min
Respiratory Rate: 16/min

The most appropriate immediate management of this patient is to

A. proceed with the treatment.
B. use prophylactic antibiotics.
C. use local anesthetic with no epinephrine.
D. delay treatment for 3 months.

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The microorganisms that initially colonize the tooth surface are associated with the genus

A. Porphyromonas.
B. Actinobacillus.
C. Streptococcus.
D. Prevotella.

The most common abuser of an elderly person is a/an

A. friend or acquaintance.
B. adult child.
C. spouse.
D. sibling.

Radiographically, the nasopalatine foramen may be mistaken for

1. an incisive canal cyst.
2. a simple bone cyst/traumatic bone cyst.
3. a radicular cyst.
4. a naso-alveolar cyst.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following does NOT influence the rate of induction during inhalation anesthesia?

A. Pulmonary ventilation.
B. Blood supply to the lungs.
C. Hemoglobin content of the blood.
D. Concentration of the anesthetic in the inspired mixture.
E. Solubility of the anesthetic in blood.
A 20 year old male presents with a three-day history of an acute generalized gingivitis. He has malaise, fever and bilateral cervical lymphadenopathy. A blood examination reveals

Hb: 8.9g/100ml
Platelets: 82,000/mm³
Red blood cell count: 3,900,000/mm³
White blood cell count: 870,000/mm³

Normal Values:

Hb: 14-18g/100ml
Platelets: 150,000-400,000/mm³
Red blood cell count: 4-5million/mm³
White blood cell count: 5,000-10,000/mm³

The most likely diagnosis is

A. thrombocytopenic purpura.
B. acute myelogenous leukemia.
C. infectious mononucleosis.
D. necrotizing ulcerative gingivitis.

Zinc phosphate cement, when used as a luting agent for cast restorations, has which of the following properties?

1. Insolubility.
2. Anticariogenicity.
3. Chemical adhesion.
4. Mechanical retention.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A 6 year old patient has an intrusive injury to tooth 5.2. All of the following are possible sequelae to the permanent successor EXCEPT

A. enamel hypoplasia.
B. root dilaceration.
C. delayed eruption.
D. ectopic eruption.

Which of the following is NOT an indication for the removal of impacted mandibular third molars?

A. Recurrent pericoronitis.
B. Crowding of incisors.
C. Pain.
D. Resorption of the distal aspect of the second molar.

Multinucleated giant cells are associated with

1. plasmocytoma.
2. odontogenic myxoma.
3. hyperparathyroidism.
4. tuberculosis.
5. osteoclastoma.

A. (1) (3) (4)
B. (2) and (3)
C. (2) and (4)
D. (3) (4) (5)
E. (2) (4) (5)

Which of the following statements regarding physiologic changes in an elderly patient is NOT correct?

A. Reduced gastric emptying can lead to a decrease in drug absorption.
B. Renal blood flow is decreased.
C. Lipid soluble drugs remain in the body for a longer period of time.
D. Relative tissue perfusion is unaltered.

Which statement is true?

A. Radiographs can differentiate between infected and non-infected periapical lesions.
B. A definitive diagnosis of an apical lesion cannot be made using radiography alone.
C. Periapical radiolucencies are indicative of loss of pulp vitality.
D. A periapical radiograph can be used to locate the buccal bone level.

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The use of aspirating syringes for the administration of local anesthetics is recommended because

1. the effectiveness of local anesthesia is increased.
2. aspiration of blood is proof that the needle is in an intravascular location.
3. their use removes the hazard of rapid injection and provides a distinct saving of time.
4. their use reduces the frequency of accidental intravenous injection.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The most appropriate management of a painless ulcer of two months duration affecting the lateral border of the tongue is to

A. prescribe systemic antibiotics.
B. perform an incisional biopsy.
C. re-evaluate in 6 months.
D. obtain a complete blood count.
E. obtain a cytologic smear.

In chronic gingivitis, the sulcular epithelium

1. is a barrier to bacterial invasion.
2. is permeable to bacterial enzymes and toxins.
3. may be ulcerated.
4. undergoes both degenerative and proliferative changes.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Decreased alveolar bone density is associated with decreased levels of

A. thyroxin.
B. hydrocortisone.
C. parathyroid hormone.
D. estrogen.

A 12 year old patient has the following cephalometric values:

- SNA = 87° (N = 82°)
- SNB = 80° (N = 80°)
- Mandibular Plane Angle = 32° (N = 32°)
- FMA = 26° (N = 26°)

The patient is a skeletal Angle Class II with a

A. normally protrusive maxilla and a retrognathic mandible.
B. protrusive maxilla and an orthognathic mandible.
C. protrusive maxilla and a retrognathic mandible.
D. re triturative maxilla and an orthognathic mandible.

A single tooth anterior crossbite found in a 9 year old should

A. self-correct.
B. be treated with a removable appliance.
C. have 2 arch orthodontic treatment.
D. be treated in the complete permanent dentition.
E. be observed and treated when the cuspids have erupted.
Typically, vital pulps of elderly patients

A. show a decrease in the number of collagenous fibres.
B. have decreased reparative capacity compared to younger adults.
C. form dentinal bridges after appropriate pulp capping procedures.
D. show an increase in myelinated nerves when compared to pulps of younger adults.

The most common complication of a venipuncture is

A. syncope.
B. hematoma.
C. thrombophlebitis.
D. embolus.

Which part of the brain is NOT primarily involved in motor control?

A. Cerebellum.
B. Basal ganglia.
C. Occipital lobe.
D. Frontal lobe.

The most common order of serial extraction in the maxillary arch is

A. primary canines, first premolars, primary first molars.
B. primary canines, primary first molars, first premolars.
C. first premolars, primary canines, primary first molars.
D. primary first molars, primary canines, first premolars.

Cephalosporins

1. may be cross-allergenic with penicillin.
2. have a narrower spectrum than penicillin.
3. have a mechanism of action similar to that of penicillin.
4. may cause cholestatic hepatitis.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

For which of the following pathological conditions would a lower central incisor tooth be expected to respond to heat, cold and electric pulp test?

A. Apical cyst.
B. Acute apical abscess.
C. Periapical cemento-osseous dysplasia.
D. Chronic apical periodontitis.

If a periodontal probe is inserted 4 or 5mm to the base of a pocket on the mesialbuccal of a tooth and then pushed facially causing blanching, this indicates that

A. gingival hyperplasia exists.
B. there is an inadequate zone of attached gingiva.
C. the lateral wall of the pocket does not consist of bone.

In cephalometric analysis of children with malocclusion, the angle ANB is frequently used. In patients with severe Class-II malocclusion, this angle is

A. greater than the normal.
B. less than the normal.
C. normal.
D. unrelated.

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The most common malignant tumor of the tongue is a/an
A. papilloma.
B. adenocarcinoma.
C. fibrosarcoma.
D. squamous cell carcinoma.
E. granular cell myoblastoma.

A laboratory remount of processed dentures is done in order to correct occlusal disharmony produced by errors primarily in the
A. mounting of the casts in the articulator.
B. registration of jaw relation records.
C. processing of acrylic.
D. setting of condylar guidance.

After a thermal stimulus has been removed from a tooth persistent pain suggests
A. a normal pulp.
B. pulp necrosis.
C. reversible pulpitis.
D. irreversible pulpitis.
E. exposed cervical dentin.

Polycarboxylate cement may be used as a base material beneath a metallic restoration because
A. its thermal conductivity is similar to dentin and enamel.
B. its thermal diffusivity is similar to dentin and enamel.
C. its compressive strength when set will resist forces of condensation.
D. All of the above.

When closing a diastema with direct composite, care must be taken to ensure that the
A. width to height relationships are appropriate.
B. entire embrasure is filled.
C. restoration does not extend subgingivally.
D. enamel is reduced 0.3 to 0.5mm prior to etching.

Mandibular condylar region grows by
A. sutural and interstitial proliferation.
B. interstitial and appositional proliferation.
C. appositional and sutural proliferation.
D. interstitial proliferation only.
E. appositional proliferation only.

Which one of the following is NOT a contraindication to ibuprofen?
A. Concurrent use of alcohol.
B. Asthmatic reaction to acetylsalicylic acid.
C. An allergy to acetaminophen.
D. A gastric ulcer.

Which of the following is NOT a feature of bruxism?
A. Radiographic evidence of the widening of the periodontal ligament.
B. Increased mobility of teeth.
C. Premature wear of occlusal surfaces.
D. Erosion.

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To maintain pulp health and vitality, the preferred treatment for asymptomatic teeth with very deep dentinal caries is

A. direct pulp capping using a dentin bonding agent.
B. to avoid pulp exposure and use indirect pulp capping.
C. direct pulp capping using calcium hydroxide.
D. to remove all affected dentin.

To achieve optimum strength and esthetics, a metal ceramic restoration with a porcelain butt joint margin should really have a

A. 0.8 – 1.0mm shoulder reduction.
B. 0.8 – 1.0mm incisal reduction.
C. 90° cavosurface margin.
D. finish line that is 2mm subgingival.

A modified hinge non-adjustable articulator is limited in its accuracy to reproduce dynamic jaw movements because it can only reproduce

A. large centric relation-maximum intercuspal slides.
B. one hinge axis movement.
C. eccentric movements by multiple lateroprotrusive registrations.

Laboratory examination of the blood of a patient with an acute bacterial infection would show

A. lymphocytosis.
B. leukocytosis.
C. monocytosis.
D. leukopenia.
E. eosinophilia.

A silane coupling agent is used to

A. control polymerization shrinkage in composite resins.
B. enhance the bond between a porcelain veneer and the resin cement.
C. reduce the surface tension when investing a wax pattern.
D. facilitate the soldering of gold castings.

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Which one of the following statements is FALSE?

A. Stippling in healthy gingiva varies with location.
B. Healthy gingiva does not bleed.
C. The interdental papillae in the posterior regions are broader than in the anterior region.
D. Healthy gingiva is bright red in color.

In endodontic therapy, the most effective irrigating solution for dissolving organic debris is

A. ethylenediaminetetraacetic acid (EDTA).
B. sodium hypochlorite.
C. calcium hydroxide.
D. hydrogen peroxide.
E. sodium chloride.

Which of the following is NOT a risk factor for periodontitis?

A. Smoking.
B. Poorly controlled diabetes.
C. Coronary heart disease.
D. Poor oral hygiene.

A very apprehensive patient experiencing pain may be prescribed a barbiturate, chloral hydrate or an antihistamine to control the anxiety. In which of the following would you expect an exaggerated response to the use of these drugs?

1. A diabetic.
2. The elderly.
3. A rheumatic.
4. A patient with chronic renal disease.

In endodontic therapy, the most effective irrigating solution for dissolving organic debris is

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

INITIAL treatment of necrotizing ulcerative gingivitis includes

1. debridement.
2. oral hygiene instruction.
3. occlusal adjustment.
4. gingivoplasty.

A. (1) and (2)
B. (1) (2) (3)
C. (1) (2) (4)
D. (2) and (3)
E. (2) and (4)

Cephalometrics is useful in assessing which of the following relationships?

A. Tooth-to-tooth.
B. Bone-to-bone.
C. Tooth-to-bone.
D. All of the above.

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An endomorph is characterized as a person who

A. is short and fat.
B. is tall and thin.
C. is muscular.
D. matures early.
E. matures late.

After a tooth surface has been completely cleaned, the new mucoprotein coating which forms on the surface is called

A. pellicle.
B. plaque.
C. materia alba.
D. primary cuticle.
E. Nasmyth's membrane.

A 78 year old patient presents with several carious lesions on the root surfaces of the maxillary posterior teeth. The restorative material of choice is a

A. microfilled composite resin.
B. hybrid composite resin.
C. silver amalgam.
D. glass ionomer cement.
E. reinforced zinc oxide and eugenol cement.

If the norm for the cephalometric angle SNA is 82 degrees and a patient's SNA is 90 degrees, this would likely indicate

A. protrusive maxillary incisors.
B. dysplasia of the anterior cranial base.
C. maxillary prognathism.
D. mandibular prognathism.

Overeruption of the posterior teeth results in increased

1. crowding.
2. overbite.
3. overjet.
4. rotation.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Periodontal pockets CANNOT be reduced by

A. occlusal adjustment.
B. scaling and root planing.
C. open flap curettage.
D. guided tissue regeneration.
The instrument most easily broken in a root canal is a

A. barbed broach.
B. reamer.
C. k-file.
D. Hedstrom file.

On bite-wing radiographs of adults under the age of 30, the normal alveolar crest is

A. at the cementoenamel junction.
B. 1-2mm apical to the cementoenamel junction.
C. 3-4mm apical to the cementoenamel junction.
D. not clearly distinguishable.

Lack of ramus height is caused by faulty development of

A. membranous bone.
B. endochondral bone.
C. Meckel’s cartilage.
D. temporomandibular joint.

A patient has a prosthetic heart valve and is allergic to penicillin. The most appropriate antibiotic to be used prophylactically is

A. erythromycin.
B. metronidazole.
C. amoxicillin.
D. tetracycline.
E. clindamycin.

In taking an impression with polysulfide or silicone materials, if the heavy bodied tray material begins to set before seating, the resultant die will

A. not be affected dimensionally.
B. be overall smaller.
C. be overall larger.
D. develop a rough surface texture.
E. develop bubbles at the interface of the syringe and tray material.

Compared to a set of opposing complete dentures, a maxillary denture opposing a full complement of natural teeth is more often associated with

A. less denture tooth wear.
B. greater incidence of denture fracture.
C. improved retention of the denture.
D. improved stability of the denture.
E. improved appearance of the denture.

On bite-wing radiographs of adults under the age of 30, the normal alveolar crest is

A. at the cementoenamel junction.
B. 1-2mm apical to the cementoenamel junction.
C. 3-4mm apical to the cementoenamel junction.
D. not clearly distinguishable.

Which of the following is LEAST likely to cause pain?

A. Carious pulp exposure.
B. Chronic hyperplastic pulpitis (pulp polyp).
C. Acute pulpitis.
D. Apical periodontitis.

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Which medication is used to control pulpal hemorrhage when performing an emergency pulpotomy?

A. Iodoform.
B. Ferric sulfate (15%).
C. C.M.C.P.
D. Cresatin.
E. Epinephrine (1:1000).
F. Formocresol.

The addition of platinum to a dental gold alloy results in increased

1. strength.
2. hardness.
3. melting point.
4. resistance to corrosion.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following should be evaluated for surgical removal before new complete dentures are fabricated?

1. Mandibular tori.
2. Epulis fissuratum.
3. Papillary hyperplasia.
4. Sharp, prominent mylohyoid ridges.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A 10 year old girl has poorly formed, distorted permanent right maxillary canine, lateral and central incisors. The remaining teeth and supporting structures are unremarkable. The patient most likely has

A. ectodermal dysplasia.
B. segmental odontomaxillary dysplasia.
C. radicular dentin dysplasia.
D. regional odontodysplasia.
E. coronal dentin dysplasia.

Five minutes after injecting a local anesthetic, a patient experiences a generalized warmth of the face, mouth and upper chest. What is the most likely cause?

A. Increased blood pressure.
B. Anaphylactic reaction.
C. Nervousness.
D. Vagal shock.

In a young patient living in an area with communal water fluoridation, the fluoride concentration of an erupted tooth is greatest

A. at the dentino-enamel junction.
B. on the surface of the clinical crown.
C. at the layer of dentin nearest the pulp chamber.
D. evenly throughout the enamel.

Which of the following space maintainers is most appropriate for a patient with the bilateral loss of mandibular first primary molars prior to the eruption of the permanent molars and permanent incisors?

A. Lingual holding arch.
B. Bilateral distal shoes.
C. Bilateral band and loop.
D. Nance appliance.
Idiopathic osteosclerosis is
A. painful.
B. found mostly in the maxilla.
C. radiolucent.
D. nonexpansile.

A patient wants all his remaining teeth extracted and dentures fabricated. He has carious lesions involving the dentin on all remaining teeth. The periodontium is sound. The most appropriate management is to
1. respect the patient's decision.
2. advise the patient to consult a specialist.
3. discuss all of the appropriate treatment options.
4. refuse to refer or to treat this patient since it is unethical.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Water irrigation devices have been shown to
A. eliminate plaque.
B. dislodge food particles from between teeth.
C. disinfect pockets for up to 18 hours.
D. prevent calculus formation.

Most cases of erosive oral lichen planus are effectively treated with
A. antifungals.
B. antibacterials.
C. antimalarials.
D. corticosteroids.

Heated impression modeling compound is "tempered" in warm water before placement in the mouth in order to
A. avoid burning the soft tissues.
B. reduce contraction error.
C. initiate a chemical reaction.
D. minimize distortion.

Which one of the following statements is true as defined in endodontics?
A. Overfilling refers to the incomplete filling of the canal system with a surplus of material extruding beyond the apical foramen.
B. Underfilling refers to the complete filling of the canal space, but leaving voids in the pulp chamber for possible recontamination or infection.
C. Overextension refers to the extrusion of filling material through an accessory canal.
D. Underextension refers to the vertical extent of the filling material regardless of its completeness of obturation.
E. All of the above.

A lower molar requiring a crown has an extensive MOD amalgam restoration. The crown margin is most appropriately placed
A. on the existing amalgam.
B. at the amalgam/tooth junction.
C. 1mm apical to the amalgam margin.

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Intravenous administration of epinephrine results in

1. increased systolic pressure.
2. increased heart rate.
3. palpitations.
4. respiratory depression.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The principles of closed fracture management are

1. reduction of fracture.
2. immobilization of fracture.
3. restoration of occlusion.
4. incision and debridement at fracture site.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following pharmacokinetic change(s) occur(s) with aging?

1. Absorption is altered by a decrease in the gastric pH.
2. Metabolism is decreased by a reduced liver mass.
3. Distribution is altered by a decrease in total body fat.
4. Excretion is reduced because of lessened renal blood flow.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

What structure is most likely to dislodge the distobuccal flange of a complete mandibular denture?

A. Retromolar pad.
B. Buccinator muscle.
C. Mylohyoid muscle.
D. Pterygomandibular raphe.

Following the administration of a right inferior alveolar nerve block, right facial paralysis is noted. Which of the following muscles is NOT affected?

A. Levator palpebrae superioris.
B. Buccinator.
C. Mentalis.
D. Nasalis.
E. Orbicularis oris.

The occlusal parameter that is most useful to differentiate between an overbite of dental or skeletal origin is the

A. mandibular curve of Spee.
B. mandibular curve of Wilson.
C. molar sagittal relationship.
D. mandibular anterior lack of space.
E. maxillary curve of Wilson.

Which of the following publications is the most reliable source for making evidence based clinical decisions?

A. Dental manufacturer’s product information.
B. Professional association journals.
C. Systematic review articles from dental research journals.
D. Case reports in dental journals.

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A functional parathyroid adenoma would most likely result in
A. generalized loss of lamina dura.
B. nervousness, exophthalmos and heat intolerance.
C. an increased caries rate.
D. multiple recurrent periodontal abscesses.

Which of the following is common to all forms of shock?
A. Sepsis.
B. Hypovolemia.
C. Hypertension.
D. Vasodilation.
E. Impaired tissue perfusion.

What is the most important factor to consider when deciding whether or not to use pulp protection?
A. depth of the pulpal floor.
B. thickness of the remaining dentin.
C. amount of carious material removed.
D. location of the carious lesion.

Which of the following is a sign of an allergic reaction to penicillin?
A. Dizziness.
B. Nausea.
C. Oliguria.
D. Dermatitis.
E. Diarrhea.

Which articular disease most often accompanies Sjögren’s syndrome?
A. Suppurative arthritis.
B. Rheumatoid arthritis.
C. Degenerative arthrosis.
D. Psoriatic arthritis.
E. Lupus arthritis.

A patient on hemodialysis
A. should receive dental treatment only on the day of hemodialysis.
B. should not be administered lidocaine for local anesthesia.
C. is likely to have an increased red blood cell count.
D. is at greater risk for infection.

Which of the following has the greatest effect on the mechanical properties of composite resin?
A. Modulus of elasticity of the filler particles.
B. Weight fraction of the filler particles.
C. Volume fraction of filler particles.
D. Hardness of filler particles.
E. Size of the filler particles.

Which of the following structures may be associated with the role of the central nervous system in sleep (nocturnal) bruxism?
A. Basal ganglia (nigrostriatal).
B. A delta and C nerves.
C. Sphenopalatine ganglion.
D. Petrous nerves.

The primary objective of periodontal flap surgery in the treatment of periodontitis is to
A. remove granulation tissue.
B. provide access for root debridement.
C. add bone support.
D. correct gingival architecture.

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With two rescuers performing cardiopulmonary resuscitation (CPR) on an adult patient, how many external chest compressions are given per minute?

A. 40.
B. 60.
C. 80.
D. 100.

Metabolism of ibuprofen is NOT affected by

A. decreased cardiac output.
B. plasma protein binding.
C. gastric emptying rate.
D. hepatic enzyme activity.

Patients with occlusal parafunctional habits may present

A. soreness in jaw muscles.
B. occlusal wear facets.
C. tooth mobility.
D. A. and C.
E. All of the above.

Hyperkeratosis, acanthosis, dysplasia, increased mitosis, intact basal cell layer and chronic inflammatory cells are histologic features that may be found in

A. squamous cell carcinoma.
B. carcinoma in situ.
C. papillifibroma.
D. endothelioma.

Increasing the kilovoltage results in greater

1. gamma radiation.
2. penetration.
3. collimation.
4. secondary radiation.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only.
E. All of the above.
Which of the following statements is true regarding the radiographic appearance of furcation involvements?

A. A definitive diagnosis can be made from a radiograph.
B. Bone loss is greater than it appears on a radiograph.
C. They are best evaluated with periapical radiographs.
D. Furcation involvements cannot be seen on radiographs.

The facial profile most often associated with an Angle’s Class III malocclusion is

A. concave.
B. convex.
C. straight.

The subgingival microbial flora isolated from sites of peri-implantitis is most similar to the flora of

A. periradicular abscess.
B. gingivitis.
C. periodontitis.

Clinical diagnosis of periodontitis requires the presence of

1. bleeding upon probing.
2. loss of periodontal attachment.
3. a periodontal pocket.
4. tooth mobility.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

With respect to local anaesthetics, which of the following statements is/are correct?

A. Certain nerve fibers are more susceptible.
B. In mixed nerves, sensory fibers are more susceptible.
C. They are marketed as water-soluble acid salts.
D. They are capable of blocking every type of nerve tissue.
E. All of the above.

Abrasion is most commonly seen on the

A. lingual surface of posterior teeth.
B. occlusal surface of posterior teeth.
C. incisal edges.
D. facial surfaces of teeth.

Localized gingival recession of a mandibular permanent incisor in an 8 year old can be caused by

A. vitamin C deficiency.
B. ankyloglossia.
C. localized aggressive (juvenile) periodontitis.
D. traumatic occlusion.
E. necrotizing ulcerative gingivitis.

For a patient allergic to penicillin, what is the drug of first choice for antibiotic prophylaxis?

A. Ampicillin.
B. Cephalexin.
C. Clindamycin.
D. Erythromycin.
E. Metronidazole.
A dental laboratory has fabricated a removable partial denture framework. The framework fits the master cast well but when tried in the mouth a stable fit cannot be achieved. The most likely cause is

A. improper major connector design.
B. distortion in the final impression.
C. shrinkage of the alloy during casting.
D. improper casting temperature.

Radiographs of a periodontally related osseous defect can be used to confirm the

A. number of bony walls.
B. measurement of the defect.
C. location of the epithelial attachment.
D. presence of a furcation involvement.

Isthmus fracture during function in a recently placed proximal-occlusal silver amalgam restoration (with occlusal extension through the occlusal fissure system), is most likely due to a preparation with

A. inadequate isthmus depth.
B. inadequate isthmus width.
C. a stepped buccal or lingual wall.
D. subgingival proximal extension.

A 4mm diameter carious pulp exposure occurs on a permanent first molar of a 7 year old child. The tooth is vital and has no periapical involvement. The appropriate initial treatment would be to perform a/an

A. pulp capping.
B. pulpotomy.
C. pulpectomy.
D. extraction.

The sharpness of a radiographic image can be improved by

A. increasing the object-to-film distance.
B. using a larger focal spot.
C. using a larger collimator.
D. increasing the focal spot-to-film distance.

Which of the following statements is/are true regarding diazepam?

1. Its long duration of action is partly due to active metabolites.
2. It does not produce anti-anxiety effects after intramuscular administration.
3. Intravenous administration is more reliable than oral.
4. Its sedative effect can be reversed by naloxone.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

In the early stage, a periradicular abscess can be differentiated from a lateral periodontal abscess by

A. pain.
B. type of exudate.
C. tenderness to percussion.
D. response of pulp to electrical stimulation.
E. radiographic examination.

A Kennedy Class II denture with no provision for indirect retention causes

A. resorption of the supporting edentulous area.
B. dislodgement of the saddle area during mastication.
C. temporomandibular joint dysfunction.
D. gingivitis.
A 75-year old female patient is being treated for oral lichen planus with a topical corticosteroid. She also has low vitamin D. The most likely cause of a reduced alveolar bone mass in this patient is

A. postmenopausal osteoporosis.
B. senile osteoporosis.
C. drug-induced osteoporosis.
D. osteomalacia.

In chronic periodontitis, the causative microorganisms are found in

1. the periodontal ligament.
2. the connective tissues of the gingiva.
3. the alveolar bone.
4. the periodontal pocket.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Shock is a circulatory disturbance characterized by

A. increase in blood pressure.
B. alteration in circulating blood volume.
C. elevation of temperature.
D. decrease in amount of interstitial fluid.

A patient is hit in the right eye with a baseball. Which of the following would indicate a right orbital floor fracture?

A. Right periorbital edema.
B. Right periorbital ecchymosis.
C. Limited upward movement of the right eye.
D. Premature occlusal contact on the maxillary right.

The most common sensory change in the healthy elderly is a decrease in

A. hearing.
B. taste.
C. touch perception.
D. olfaction.

In the bisecting angle principle of intraoral radiography, the radiopacity that can obliterate the apices of maxillary molars is the

A. maxillary sinus.
B. palatine bone and the zygoma.
C. orbital process of the zygomatic bone.
D. zygoma and the zygomatic process of the maxilla.

Which of the following should NOT be corrected with a porcelain veneer?

A. Peg lateral incisor.
B. Diastema between 1.1 and 2.1.
C. Cross bite on tooth 1.3.
D. Enamel hypoplasia.

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Which of the following is caused by a specific microorganism?

A. Geographic tongue.
B. Lichen planus.
C. Median rhomboid glossitis.
D. Pyogenic granuloma.

Selection of the appropriate kilovoltage for dental films is influenced by

A. line voltage fluctuation.
B. diameter of the primary beam of radiation.
C. type of timer.
D. tissue density.
E. filter thickness.

A patient who is jaundiced because of liver disease has an increased risk of

A. postextraction bleeding.
B. cardiac arrest.
C. postoperative infection.
D. anaphylactic shock.
E. pulmonary embolism.

Which of the following should be done prior to pin hole placement in an extensive amalgam preparation?

1. Examine the radiograph.
2. Determine the subgingival anatomic contours.
3. Remove caries and unsupported enamel.
4. Place a pilot hole at the dentino-enamel junction.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The epithelium covering the lesions of chronic hyperplastic pulpitis is believed to be derived from the

A. reduced enamel epithelium.
B. epithelium of the gingiva.
C. odontoblastic layer.
D. epithelial rests of Malassez.
E. remnants of the dental lamina.

In acutely inflamed gingival tissue, there is an increase in the

A. number of mast cells.
B. number of plasma cells.
C. level of histamine.
D. A. and B.
E. A. and C.

Which of the following is NOT a malignancy?

A. Leukemia.
B. Lymphoma.
C. Leiomyoma.
D. Melanoma.

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A 52 year old patient presents with a limitation of mouth opening. The patient has loss of attached gingiva and multiple areas of gingival recession. A panoramic radiograph shows diffuse widening of the periodontal ligament. The most likely diagnosis is

A. scleroderma.  
B. hyperparathyroidism.  
C. cicatricial pemphigoid.  
D. erythema multiforme.  
E. advanced adult periodontitis.

The extraction of a maxillary deciduous central incisor at the age of 6 years will cause

A. loss of intercanine space.  
B. increased intercanine space.  
C. no change in intercanine space.  
D. decreased overjet.

A dental restoration with marginal discrepancy (void) located 1mm subgingivally can affect gingival health by

A. creating an environment conducive to an altered microbial flora.  
B. impinging on the biologic width.  
C. causing furcation involvement.  
D. causing leaching of restorative materials into the gingival crevice.

Anginal pain is

A. provoked by exercise or cold weather.  
B. not relieved by rest.  
C. relieved by digoxin.  
D. aggravated by deep inspiration.

Cementing a full gold crown with zinc phosphate includes

1. applying a thick coat of cement internally.  
2. application of continuous loading.  
3. cleaning excess cement off while setting.  
4. having excess cement covering the margins.

A. (1) (2) (3)  
B. (1) and (3)  
C. (2) and (4)  
D. (4) only  
E. All of the above.

Loss of sensibilit over the distribution of the inferior dental nerve is a possible complication from

1. removal of an impacted mandibular third molar tooth.  
2. removal of a torus mandibularis.  
3. an acute osteomyelitis of the mandible.  
4. an uncomplicated removal of a mandibular second molar.

A. (1) (2) (3)  
B. (1) and (3)  
C. (2) and (4)  
D. (4) only  
E. All of the above.

Which of the following is associated with aggressive periodontitis in adolescents?

A. Treponema denticola.  
B. Aggregatibacter (Actinobacillus) actinomycetemcomitans.  
C. Porphyromonas gingivalis.  
D. Prevotella intermedia.
On an edentulous patient, a panoramic radiograph is used to

A. determine the level of muscle attachments.
B. identify systemic problems affecting the soft tissues of the mouth.
C. reveal retained roots or residual areas of infection.
D. assess the vertical dimension.

The predominant microorganisms associated with periodontitis are

A. gram-positive aerobes.
B. gram-negative aerobes.
C. gram-positive anaerobes.
D. gram-negative anaerobes.

The most damaging characteristic of an Angle Class II, division 2 malocclusion is the

A. deep overbite.
B. crowding of the mandibular incisors.
C. relationship of the molars.
D. impaction of the maxillary canines.
E. malposition of the maxillary lateral incisors.

Which condition produces a radiopaque image?

A. Osteomalacia.
B. Multiple myeloma.
C. Osteopetrosis.
D. Letterer-Siwe disease.
E. Central giant cell granuloma.

Upon stimulation of salivary flow, which gland is the main source of salivary volume?

A. Submandibular.
B. Submaxillary.
C. Sublingual.
D. Parotid.

In placing an amalgam, interproximal wedging will be most effective in controlling the

A. buccal contour.
B. gingival contour.
C. lingual contour.
D. marginal ridge contour.

The primary stress bearing area of the maxillary complete denture is the

A. hard palate.
B. alveolar ridge.
C. soft palate.
D. zygoma.

With respect to the use of gloves in dentistry,

A. gloves may be reused on the same patient if they can be removed without contaminating the operator.
B. utility gloves are appropriate for patient care when no other options are available.
C. gloves may be used on more than one patient as long as there are no identified risks in that patient’s medical history.
D. sterile gloves should be used during a surgical procedure.
Which of the following, if left untreated, is most likely to result in a periapical lesion?

A. Internal resorption.
B. Reversible pulpitis.
C. Acute suppurative pulpitis.
D. Chronic hyperplastic pulpitis.
E. Diffuse calcification of the pulp.

The mesial and distal walls of a Class I amalgam preparation diverge toward the occlusal surface in order to

A. resist the forces of mastication.
B. provide resistance and retention form.
C. prevent undermining of the marginal ridges.
D. extend the preparation into areas more readily cleansed.

The most appropriate time to begin orthodontic correction of an Angle Class II malocclusion is

A. following eruption of the maxillary first permanent molars.
B. following eruption of the maxillary permanent central and lateral incisors.
C. several months prior to the pubertal growth spurt.
D. at the start of the pubertal growth spurt.

A suprabony pocket is associated with

1. enlargement of the marginal gingiva.
2. horizontal loss of alveolar bone.
3. subgingival calculus.
4. spontaneous bleeding.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The average annual dose of ionizing radiation that a patient receives from dental radiographs is

A. greater than the average amount received from natural sources.
B. about the same as the average amount received from medical sources.
C. about the same as the average amount received from cosmic radiation.
D. low when compared to the average total amount of radiation received.

Dentists may choose NOT to provide treatment for a patient when the

1. treatment cannot be completed in a timely fashion.
2. patient has a serious communicable disease.
3. dentist does not have sufficient training for procedure.
4. treatment is for an urgent situation.

A. (1) and (3)
B. (2) and (4)
C. (1) (2) (3)
D. (4) only
E. All of the above.

Most bone loss associated with dental implants occurs at

A. 0 – 1 year.
B. 2 – 4 years.
C. 5 – 7 years.
D. 10 – 12 years.

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An anterior open bite is commonly associated with
A. a horizontal growth pattern.
B. a functional shift.
C. an associated habit.
D. a normal swallowing reflex.

The immediate treatment of a periodontal abscess is to
A. establish drainage.
B. prescribe an analgesic.
C. relieve the occlusion.
D. prescribe an antibiotic.

Which of the following does NOT occur when epinephrine is administered intravenously?
A. Increased systolic pressure.
B. Increased heart rate.
C. Arrhythmias.
D. Respiratory depression.

For an acid-etched Class III composite resin, the cavosurface margin of the cavity can be bevelled to
A. eliminate the need for internal retention.
B. improve convenience form.
C. aid in finishing.
D. increase the surface area for etching.

For an acute bacterial infection, the most valuable laboratory test(s) is/are the
1. hemoglobin level.
2. white blood cell count.
3. red blood cell count.
4. culture and sensitivity test.

Which of the following conditions can make an older patient short of breath on mild exertion?
1. Anemia.
2. Cardiac failure.
3. Obesity.
4. Osteoarthritis.

The best way for a dentist to ensure efficacy in a disinfection solution is to
A. make a fresh solution every day.
B. follow the manufacturer’s instructions.
C. increase the concentration of the product.
D. increase the time of contact with the product.
A pale 8 year old patient presents with generalized gingival enlargement and spontaneous bleeding. The most appropriate initial management of this patient is to

A. perform an incisional biopsy.
B. obtain a cytologic smear.
C. order a complete blood count.
D. obtain bacterial cultures.
E. obtain a fasting blood glucose level.

Retention of a gold inlay is improved by

1. addition of an occlusal dovetail.
2. increasing the parallelism of walls.
3. lengthening the axial walls.
4. placing a gingival bevel.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The major advantage of glass ionomer cement as a restorative material is that it is

A. highly translucent.
B. a fluoride releasing material.
C. highly esthetic.
D. unaffected by moisture during the setting reaction.
E. low solubility.

When making maxillomandibular records for a complete denture patient, the vertical dimension of occlusion is acceptable when

A. interocclusal distance (freeway space) is 8-10mm.
B. occlusal rims contact evenly and bilaterally at the same time as the lips touch.
C. the maxillary rim shows just below the upper lip and the mandibular rim is even with the corners of the mouth.
D. it is equal to the rest vertical dimension.
E. the difference between the occlusal vertical dimension and the rest vertical dimension is 2-4mm.

A patient complains of tooth pain which is sharp and stabbing when chewing sweet or cold foods. Pain is relieved by warmth and direct pressure. Your diagnosis is

A. a carious lesion with pulpal inflammation.
B. a carious lesion with pulp degeneration.
C. traumatic occlusion.
D. a cracked tooth.

The predominant cells in the inflammatory exudate of an acute periodontal abscess are

A. neutrophils.
B. eosinophils.
C. basophils.
D. lymphocytes.
E. monocytes.

An advantage of glass ionomer cement is

A. low solubility.
B. wear resistance.
C. adhesion to hard tooth tissues.
D. low incidence of sensitivity.
A cast post and core is used to

1. provide intraradicular venting.
2. strengthen a weakened tooth.
3. redirect the forces of occlusion.
4. provide retention for a cast crown.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which articular disease most often accompanies Sjögren’s syndrome?

A. Suppurative arthritis.
B. Rheumatoid arthritis.
C. Degenerative arthrosis.
D. Psoriatic arthritis.
E. Lupus arthritis.

In fibrous dysplasia

A. foci of cartilage are a common histological finding.
B. an inflammatory infiltrate is characteristically present.
C. there are characteristic changes in the blood chemistry.
D. a ground-glass appearance is present on radiographs.

A well circumscribed 3mm radiolucent lesion is present in the apical region of the mandibular second premolar. The tooth responds normally to vitality tests. The radiolucency is most likely

A. a periradicular periodontitis.
B. a dentigerous cyst.
C. a rarefying osteitis.
D. the mental foramen.

In designing a removable partial denture, the location of clasps is determined on

A. a master cast after tooth preparations are completed.
B. a surveyed diagnostic cast prior to preparation of occlusal rest areas.
C. the refractory cast.

Disuse atrophy of the periodontium causes

A. changes in the arrangement of fibre bundles.
B. narrowing of the periodontal ligament.
C. osteoporosis of the alveolar process.
D. decrease in tooth mobility.
E. All of the above.

Which of the following applies to gutta-percha?

A. It can be thermoplasticized.
B. It is a good thermal conductor.
C. It can be inserted easily into fine canals.
D. It is soluble in periapical exudate.

Which disease is associated with a higher proportion of *Fusobacterium, Porphyromonas, Prevotella,* and spirochetes?

A. Necrotizing ulcerative periodontitis.
B. Chronic periodontitis.
C. Aggressive periodontitis.
D. Root caries.
E. Early childhood caries.
Proper collimation of the useful beam for the film size and target-film distance will reduce the

1. intensity of central beam.
2. secondary radiation.
3. radiographic contrast.
4. radiation received by patient.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following drug groups is LEAST likely to cause xerostomia?

A. Diuretics.
B. Antibiotics.
C. Antidepressants.
D. Anticholenergics.

If a child's teeth do NOT form, the primary effect will be on the growth of the

A. alveolar bone.
B. mandible.
C. maxilla.
D. palate.

Gigantism is caused by

A. a hyperactive thyroid.
B. atrophy of the posterior pituitary.
C. hyperplasia of the anterior pituitary.
D. hyperplasia of the parathyroids.

In recording centric relation registration, perforation of the recording material must be avoided because

A. the material will undergo dimensional changes.
B. contact of teeth could deflect the mandible.
C. the recording material will be too weak and may fracture.

Which of the following patients has the POOREST prognosis when placing dental implants? A patient who

A. is over age 80 years old.
B. is on thyroid replacement therapy.
C. smokes 2 packs of cigarettes daily.
D. has generalized osteoporosis.

In a patient with complete dentures, cheek biting may result from

A. too great an occlusal vertical dimension.
B. the use of steep-cusped posterior teeth.
C. insufficient coverage of the retromolar pad areas.
D. insufficient horizontal overlap of the posterior teeth.

Which of the following is/are (an) indication(s) for the removal of impacted mandibular third molars?

1. Recurrent pericoronitis.
2. Prevention of crowding of mandibular incisors.
4. They are impacted.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

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Prevention of gingival irritation by a major connector of a removable partial denture is accomplished by

A. using split palatal bars.
B. reducing the size of the connector.
C. ensuring maximum distribution of occlusal forces.
D. providing relief between the connector and the gingiva.

A surgical flap not repositioned over a bony base will result in

1. slower healing.
2. foreign body inflammatory reaction.
3. wound dehiscence.
4. necrosis of bone.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The inorganic ion which is the chief offender in hypertension is

A. sodium.
B. ammonium.
C. magnesium.
D. potassium.

Which of the following statements regarding Informed Consent is FALSE? It is

A. always necessary.
B. given only by the person receiving the treatment.
C. able to be withdrawn.
D. procedure specific.

A therapeutic advantage of penicillin V over penicillin G is

A. greater resistance to penicillinase.
B. broader bactericidal spectrum.
C. greater absorption when given orally.
D. slower renal excretion.
E. None of the above.

In a removable partial denture, a palatal strap is used instead of a narrow bar because it is

A. more rigid with less thickness.
B. easier to polish.
C. more stable.
D. less irritating to the soft tissues.
E. more hygienic.
Aging of the pulp is evidenced by a relative increase in

1. vascularity.
2. nerve tissue.
3. cell numbers.
4. fibrous elements.
5. calcification.

A. (1) (2) (3)
B. (1) and (3)
C. (3) (4) (5)
D. (4) and (5)

An increase of immunoglobulins is consistent with increased numbers of

A. fibroblasts.
B. neutrophils.
C. lymphocytes.
D. plasma cells.

A physical sign of impending syncope is

A. pallor.
B. elevation of blood pressure.
C. tachycardia.

The oral mucosa covering the base of the alveolar bone

A. is normally non-keratinized but can become keratinized in response to physiological stimulation.
B. is closely bound to underlying muscle and bone.
C. does not contain elastic fibres.
D. merges with the keratinized gingiva at the mucogingival junction.
E. has a tightly woven dense collagenous corium.

Regardless of the target-film distance employed for intraoral surveys, the diameter of the primary beam at the patient's skin surface should not be greater than

A. the longest side of the film.
B. the size of the lead diaphragm.
C. 7cm.
D. the size of the filter.

The principal component of the fibres of the periodontal ligament is

A. elastin.
B. reticulin.
C. fibronectin.
D. collagen.

A Le Fort I or Guerin fracture is a

A. fracture of the zygomatic arch.
B. horizontal fracture of the maxilla.
C. fracture of the malar complex involving the floor of the orbit.
D. pyramidal fracture of the maxilla.
E. craniofacial dysjunction.

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An acute lateral periodontal abscess associated with a lateral periodontal cyst can be differentiated from an acute abscess of pulpal origin by the

A. type of exudate.
B. intensity of pain.
C. nature of swelling.
D. degree of tooth mobility.
E. response to a vitality test.

In the treatment of necrotizing ulcerative gingivitis with associated lymphadenopathy, which of the following medications is the most effective?

A. An anti-inflammatory.
B. A topical antibiotic.
C. A systemic antibiotic.
D. An analgesic.

An end result of ionizing radiation used to treat oral malignancies is

A. deformity of the jaws.
B. reduced vascularity of the jaws.
C. increased vascularity of the jaws.
D. increased brittleness of the jaws.

Following loss of a permanent mandibular first molar at age 8, which of the following changes are likely to occur?

1. Distal drift of second premolar.
2. No movement of second premolar.
3. Mesial drift of second permanent molar.
4. No movement of second permanent molar.

In the treatment of necrotizing ulcerative gingivitis with associated lymphadenopathy, which of the following medications is the most effective?

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A patient with hyperthyroidism may exhibit

A. weight gain.
B. delayed eruption of teeth.
C. exophthalmos.
D. gingival inflammation.

Calculus causes gingival inflammation by

A. mechanical irritation.
B. stimulating auto immune responses.
C. retaining micro-organisms.
D. releasing toxins.

What is the name of the area in which the resin of the adhesive system micromechanically interlocks with dentinal collagen?

A. Active zone.
B. Smear layer.
C. Hybrid layer.
D. Adhesive zone.

Treatment of primary herpetic gingivostomatitis should include

1. palliative treatment.
2. steroid therapy.
3. control of secondary infection.
4. application of dilute hydrogen peroxide.

A patient with hyperthyroidism may exhibit

A. weight gain.
B. delayed eruption of teeth.
C. exophthalmos.
D. gingival inflammation.

Which of the following treatments is CONTRAINDICATED for a patient with necrotizing ulcerative gingivitis?

A. Antibiotic therapy.
B. Local debridement.
C. Topical steroid therapy.
D. Warm saline solution rinses.

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The primary role of calcium hydroxide in indirect pulp cap procedures is to

A. reduce bacterial load.
B. occlude the dentinal tubules.
C. build up the internal form of the cavity preparation.
D. provide a hermetic seal.

Which of the following is necessary for collagen formation?

A. Vitamin A.
B. Vitamin C.
C. Vitamin D.
D. Vitamin E.
E. Vitamin K.

A tilted molar can be used as a fixed partial denture abutment if

1. it undergoes orthodontic uprighting first.
2. a coping and telescopic crown are used on the abutment.
3. a non-rigid connector is placed in the fixed partial denture.
4. its long axis is within 25° of the long axis of the other abutments.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Xerostomia can be associated with

A. hormonal imbalance.
B. hypertension and anxiety.
C. adverse effects of medication.
D. emotional problems.
E. All of the above.

A labial frenum causes a diastema between the permanent maxillary central incisors. The lateral incisors and canines have not erupted. The most appropriate management is to

A. perform a frenectomy.
B. close the space with an orthodontic appliance.
C. observe the case until the eruption of permanent maxillary lateral incisors and canines.
D. close the space with an elastic band.
E. close the space after the eruption of the lateral incisors.

Which of the following is LEAST likely to share histological features with lichen planus?

A. White sponge nevus.
B. Oral mucosal cinnamon reaction.
C. Oral graft-versus-host disease.
D. Lupus erythematosus.

Success of an endosseous dental implant is dependent upon

1. biocompatibility of the material.
2. design.
3. a period of non-function.
4. immediate loading.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

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An 8 year old child has an 8 mm diastema between teeth 1.1 and 2.1. This could indicate the presence of
1. an enlarged frenum.
2. a cyst.
3. one or more mesiodens.
4. normal development.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following is the most appropriate treatment for an endodontically treated mandibular first molar with a previously placed MOD amalgam restoration?
A. Bonded amalgam restoration.
B. Composite resin restoration.
C. Ceramic inlay.
D. Crown.

For an acid-etched Class III composite resin, the cavosurface margin of the cavity can be bevelled to
A. eliminate the need for internal retention.
B. improve convenience form.
C. aid in finishing.
D. increase the surface area for etching.

An 8 year old patient presents 4 hours post-trauma with an oblique crown fracture of 2.1 exposing 2mm of vital pulp. The most appropriate pulpal treatment is
A. apexogenesis.
B. apexification.
C. extraction.

Diabetes mellitus is the result of
A. hypersecretion of the posterior pituitary.
B. atrophy of the islands of Langerhans.
C. destruction of the adrenal cortex.
D. destruction of the posterior pituitary or associated hypothalamic centres.

Which of the following microorganisms are most frequently found in infected root canals?
A. Streptococcus viridans.
B. Staphylococcus aureus.
C. Lactobacilli.
D. Enterococci.
E. Staphylococcus albus.

A 9-year old has tooth 1.1 completely erupted and tooth 2.1 is unerupted. The radiographs reveal a palatally located mesiodens. The preferred treatment would be
A. observation and continued monitoring.
B. allow the mesiodens to erupt into the arch and then extract it.
C. extract the mesiodens and allow passive eruption of the 2.1.
D. extract the mesiodens and orthodontically extrude the 2.1.

The inverse square law states that if 100 x-ray photons are measured 1m from a point source of radiation, the number of photons measured at 2m from the same source would be
A. 50.
B. 33.
C. 25.
D. 10.
A 65 year old patient has a tendency for urinary tract stones. Radiographic examination shows generalized loss of the lamina dura and a “ground glass” appearance of the bone. What is the most likely diagnosis?

A. Hyperthyroidism.
B. Addison’s disease.
C. Hypothyroidism.
D. Hyperparathyroidism.
E. Hypoparathyroidism.

A syphilitic gumma is most commonly found on the

A. lip.
B. tongue.
C. palate.
D. buccal mucosa.
E. gingiva.

A patient complains of irritability, fatigue and weakness. She is losing weight and has diarrhea. The clinical examination shows diffuse brown macular pigmentation of the oral mucosa. The pigmentation appeared recently. The most likely diagnosis is

A. iron deficiency anemia.
B. Addison’s disease.
C. acute myeloid leukemia.
D. Crohn’s disease.

Which of the following statements concerning the airway is correct?

A. Sympathetic fibres constrict the bronchioles.
B. The trachea is membranous posteriorly to accommodate the pulsations of the aorta.
C. The right primary bronchus forms two secondary bronchi.
D. An aspirated foreign body would likely fall into the right primary bronchus.

Denture stomatitis can be associated with

1. candida albicans infection.
2. xerostomia.
3. inadequate denture hygiene.
4. ill-fitting dentures.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

In order to prevent gingival recession, a full gold crown should have

A. a slightly narrow food table.
B. a slightly overcontoured tooth form.
C. normal contour reproduced.
D. the margins extended 1mm into the gingival crevice.

Which of the following should be considered when assessing the difficulty of removal of an impacted mandibular third molar?

1. angulation.
2. root width.
3. depth in the alveolus.
4. periodontal ligament space.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

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An 8 year old patient with all primary molars still present exhibits a cusp-to-cusp relationship of permanent maxillary and mandibular first molars. The management of this patient should be to

A. plan serial extractions for more normal adjustment of the occlusion.
B. refer the patient to an orthodontist for consultation.
C. place a cervical headgear to reposition maxillary molars.
D. disk the distal surfaces of primary mandibular second molars to allow normal adjustment of permanent molars.
E. observe.

Which of the following could be immediate postoperative complications of periapical surgery?

1. Haemorrhage.
2. Edema.
3. Paresthesia.
5. Mucocele.

A. (1) (2) (3)
B. (1) (2) (3) (4)
C. (1) (3) (5)
D. All of the above.

The highest incidence of congenitally missing lateral incisors is most likely seen in a patient with

A. unilateral cleft lip and palate.
B. congenital heart disease.
C. Down's syndrome.
D. hyperthyroidism.

Which of the following is a possible cause for a low density radiograph (light film)?

A. Cold developer.
B. Over exposure.
C. Improper safety light.
D. Excessive developing time.

A recommended method for disinfecting alginate impressions is to immerse the impression for 10 minutes in

A. a complex phenolic.
B. 2% glutaraldehyde.
C. 10% ethyl alcohol.
D. a 1:10 dilution of sodium hypochlorite.

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Which of the following are characteristics of restorative glass ionomer cements?

1. Release of fluoride.
2. Bonding to enamel.
3. Setting not affected by a well controlled moist environment.
4. Irritating to pulpal tissues.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following teeth is LEAST likely to develop a furcation involvement?

A. 1.4.
B. 1.5.
C. 1.6.
D. 1.7.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Firm contact between approximating teeth is important because it

A. locates the marginal ridges of each tooth.
B. keeps the teeth from having any movement during function.
C. insures proper cusp form and increases masticatory efficiency.
D. stabilizes the dental arches and gives protection to the gingival papillae.

All of the following display viscoelastic properties EXCEPT

A. irreversible hydrocolloids.
B. dental porcelain.
C. silver amalgam.
D. dentin.

For teeth prepared as abutments for fixed bridges, unsatisfactory temporary crown restorations may result in

1. tooth sensitivity.
2. gingival recession.
3. tooth migration.
4. occlusal prematurities.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Deposition of plaque on teeth occurs in

A. less than 24 hours.
B. 24 to 48 hours.
C. 2 to 4 days.
D. 5 to 7 days.

The pulpal floor of an occlusal amalgam preparation on a mandibular first premolar should slope apically from

A. mesial to distal.
B. buccal to lingual.
C. distal to mesial.
D. lingual to buccal.

Basal cell carcinoma on the nose

A. normally metastasizes to the submental lymph nodes.
B. normally metastasizes to the submaxillary lymph nodes.
C. normally metastasizes to the cervical lymph nodes.
D. normally metastasizes to the pre-auricular lymph nodes.
E. does not normally metastasize.

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Which of the following steroids can produce Cushing's syndrome?

A. Estradiol.
B. Testosterone.
C. Prednisolone.
D. Progesterone.
E. Diethylstilbestrol.

Early anoxia is characterized by

1. cyanosis.
2. bradycardia.
3. tachycardia

A. (1) only
B. (1) and (2)
C. (1) and (3)
D. All of the above.

Upon examination of an edentulous patient, it is observed that the tuberosities contact the retromolar pads at the correct occlusal vertical dimension. The treatment of choice is to

A. reduce the retromolar pads surgically to provide the necessary clearance.
B. reduce the tuberosities surgically to provide the necessary clearance.
C. construct new dentures at an increased occlusal vertical dimension to gain the necessary clearance.
D. proceed with construction of the denture and reduce the posterior extension of the mandibular denture to eliminate interferences.

On Monday morning, a seven-year old child presents with a 3 mm, coronal fracture with pulp exposure of the maxillary left central incisor, which occurred during a football game Sunday afternoon. The tooth is sensitive to hot and cold fluids. The treatment of choice is

A. direct pulp capping with calcium hydroxide and a suitable protective restoration.
B. calcium hydroxide pulpotomy.
C. gutta-percha pulpectomy.
D. gutta-percha pulpectomy followed by an apicoectomy.
E. root-end induction.

Yellow or brown stains appearing on radiographs months after processing result from

A. processing at an excessive temperature.
B. storing radiographs at 30°C.
C. incomplete fixing and/or washing of radiographs.
D. using expired film.

In periodontal flap surgery, the initial incision is made to

A. remove the sulcular lining of the pocket.
B. aid in healing.
C. sever the attachment of the oblique fibres of the periodontal ligament.
D. excise the keratinized gingiva.

A patient prescribed metronidazole should avoid

A. alcohol.
B. antacids.
C. caffeine.
D. cheese.
E. grapefruit juice.

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The appliance of choice to correct an anterior crossbite is determined by the
A. amount of overbite.
B. age of the patient.
C. cooperation of the patient.
D. practitioner preference.

Distortion of a wax pattern is mainly due to
A. insufficient plasticity during manipulation.
B. insufficient bulk of material.
C. relaxation of stresses introduced during manipulation.
D. insufficient paraffin ingredient.
E. refrigeration.

The normal growing mandible exhibits which of the following characteristics?
A. Resorbs along the posterior rami.
B. Grows more vertically than horizontally.
C. Has completed 100% of its growth by age 13 in females.
D. Has latent post pubertal growth potential.

Which of the following types of bone contain the insertions of the periodontal ligament fibres?
A. Woven.
B. Bundle.
C. Lamellar.
D. Cortical.

A 'pregnancy tumor' is
A. unassociated with local irritants.
B. a benign neoplasm.
C. clinically identical to a pyogenic granuloma.
D. None of the above.

Low serum levels of parathyroid hormone and vitamin D combined with low bone mass in the skeleton are consistent with the diagnosis of
A. hypoparathyroidism.
B. hypothyroidism.
C. dietary calcium deficiency.
D. postmenopausal osteoporosis.

In the Vita® Classical Shade Guide, the hue of the A shade series is
A. red.
B. grey.
C. yellow.
D. brown.

Tooth 4.5 was treated endodontically 2 years ago and is now sensitive to percussion. There is an isolated, narrow 8mm periodontal pocket on the buccal surface of the tooth. Radiographic findings are within normal limits. The most likely diagnosis is a/an
A. endodontic lesion.
B. vertical root fracture.
C. chronic periodontal lesion.

The joining together of two teeth in the root portion through cemental union is known as
A. gemination.
B. fusion.
C. twinning.
D. concrescense.

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The most likely diagnosis for a patient with an interincisal opening of 30mm before feeling pain and a maximum opening of 44mm with pain is

A. internal derangement of the TMJ with reduction.
B. internal derangement of the TMJ without reduction.
C. tetani of the masticatory muscles.
D. subluxation of the TMJ.
E. myofascial pain.

Which of the following is the most powerful jaw-closing muscle?

A. Temporalis.
B. Lateral pterygoid.
C. Masseter.
D. Medial pterygoid.

The radiographic appearance of internal resorption is

A. radiolucent enlargement of the pulp cavity.
B. radiolucency around the apex of the root.
C. radiolucency on the surfaces of the root.
D. localized radiopacities in the pulp cavity.
E. radiopacity around the apex of the root.

Microbial virulence factors

A. are produced by non-pathogenic microbes.
B. are always pathogenic.
C. include exotoxins, capsules, endotoxins and enzymes.
D. are caused only by Gram-positive microbes.

A patient presents with apparent paralysis of one side of the face which appeared the day before. What is the most likely diagnosis?

A. Glossodynia.
B. Bell's palsy.
C. Myasthenia gravis.
D. Trigeminal neuralgia.

The prime advantage of vacuum firing of porcelain is

A. better colour.
B. less shrinkage.
C. more translucency.
D. increased strength.

An 86 year old patient with poor oral hygiene has a cavitated lesion with active caries. The lesion is on the vestibular root surface of a maxillary posterior tooth, and the patient does not want any mercury in their mouth. The most appropriate restorative material for this lesion is

A. microfill resin composite.
B. hybrid resin composite.
C. resin-modified glass ionomer.
D. amalgam.

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In the early stage, a periapical abscess can be differentiated from a lateral periodontal abscess by

A. pain.
B. type of exudate.
C. tenderness to percussion.
D. response of pulp to electrical stimulation.
E. radiographic examination.

Necrotizing ulcerative gingivitis (NUG) and acute herpetic gingivostomatitis can be differentiated clinically by (the)

A. location of the lesions.
B. temperature of the patient.
C. pain.
D. lymphadenopathy.

The major connector of a removable partial denture should be designed to

A. rigidly connect the denture components.
B. act as a stress-breaker.
C. dissipate vertical forces.
D. distribute forces to the soft tissues.

Which of the following are characteristics of restorative glass ionomer cements?

1. Release of fluoride.
2. Bonding to enamel.
3. Setting is affected by moisture.
4. Irritating to pulpal tissues.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Extreme resorption of an edentulous mandible can bring the alveolar ridge to the level of the attachment of the

A. buccinator, styloglossus and geniohyoid muscles.
B. mylohyoid, buccinator and styloglossus muscles.
C. superior constrictor, mylohyoid and buccinator muscles.
D. mylohyoid, buccinator and genioglossus muscles.

Following root planing, a patient experiences thermal sensitivity. This pain is associated with which of the following?

A. Golgi receptor.
B. Free nerve endings.
C. Odontoblastic processes.
D. Cementoblasts.

Which disease could cause both renal and cardiac complications?

A. Measles.
B. Scarlet fever.
C. Rubella.
D. Rosacea.

The level of *streptococcus mutans* has been shown to be significantly higher in the bacterial plaque adjacent to which type of posterior restoration?

A. Glass-ionomer.
B. Composite resin.
C. Amalgam.
D. Gold castings.

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Which of the following is the best predictor for successful periodontal flap surgery?

A. Position of the flap after suturing.
B. Extent of flap reflection.
C. Level of plaque control.
D. Type of initial incision.

Which of the following indicates a failure of a dental implant?

A. Gingival inflammation.
B. Horizontal bone loss of one third of the implant length.
C. Mobility.
D. Increased probing depths.

Acute maxillary sinusitis is associated with

1. pain in the posterior maxillary teeth.
2. nasal discharge.
3. tenderness of posterior maxillary teeth to percussion.
4. increase of pain when bending over.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

All of the following are possible effects of acetylsalicylic acid except

A. reduction of fever.
B. shortening of bleeding time.
C. suppression of inflammatory response.
D. bleeding from the gastrointestinal tract.

Which oral condition predisposes to caries?

A. Xerostomia.
B. Leukoplakia.
C. Pharyngitis.
D. Stomatitis medicamentosa.

A 13 year old complains of red, bleeding and swollen gums. Clinical examination reveals this is present only on the labial gingiva of the maxillary anterior teeth. What is the most likely etiologic factor?

A. Blood dyscrasia.
B. Insulin-dependent diabetes mellitus.
C. Mouth breathing habit.
D. Pubertal hormones.

An anterior endodontically treated tooth has been restored with a carbon fibre, a direct restorative core and a porcelain fused to metal crown. What is the most important factor influencing the prognosis of this tooth?

A. Type of core material.
B. Type of luting cement.
C. Amount of remaining coronal tooth structure.
D. Alloy composition of the post.

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An article reports that subjects receiving chlorhexidine varnish had significantly lower (p<0.05) *Streptococcus mutans* levels than did those receiving fluoride varnish. What type of reporting error is of the most concern when interpreting these results?

A. Type II (β) error.
B. Type I (α) error.
C. Type II (α) error.
D. Type I (α) error.

Which of the following nerves should be anesthetized for extraction of a maxillary lateral incisor?

1. Nasociliary.
2. Nasopalatine.
4. Anterior superior alveolar.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The retention form of a full crown preparation can be improved by

1. reducing its taper.
2. increasing its length.
3. utilizing grooves or boxes.
4. polishing the preparation.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Spirochete activity is seen by

A. staining with Gram's method.
B. staining with methylene blue.
C. observation with dark-field microscopy.
D. observation with conventional microscopy.

In teeth with complete pulp necrosis, the periapical area is involved if

1. there is pain to thermal stimuli.
2. there is pain on percussion.
3. the tooth throbs when the patient is lying down.
4. the radiograph shows an apical radiolucency.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Pulpectomy is the most appropriate treatment in a primary tooth with

A. reversible pulpitis.
B. advanced internal root resorption.
C. advanced external root resorption.
D. radicular pulp necrosis.

Which of the following may be associated with a fracture of the mandible?

A. Diplopia.
B. Malocclusion.
C. Swelling of the orbit.
D. Bleeding from the nose.

A stone in the salivary glands or ducts is called a

A. sialolith.
B. rhinolith.
C. phlebolith.
D. thrombolith.

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Direct pulp capping of permanent teeth in children under the age of 12 years is most likely to be successful for

A. teeth that are symptomatic.
B. necrotic pulps.
C. teeth with open apices.
D. pulp exposures 3-5mm in size.

Premature loss of a primary maxillary second molar usually produces a malocclusion in the permanent dentition that is characterized by

A. anterior crowding.
B. labially displaced maxillary canines.
C. delayed eruption of the permanent first molar.
D. an Angle Class II molar relationship on the affected side.
E. an Angle Class III molar relationship on the affected side.

Which of the following fibre groups are attached to bone?

1. Apical.
2. Oblique.
3. Alveolar crest.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only.
E. All of the above.

In gingivitis, the initial cellular immune response predominantly involves

A. T lymphocytes.
B. B lymphocytes.
C. neutrophils.
D. plasma cells.

Which of the following lesions may appear radiolucent on a radiograph?

A. Dense bone island/idiopathic osteosclerosis.
B. Periapical osseous dysplasia.
C. Sialolith.
D. Osteopetrosis.

A healthy 78 year old patient presents with three new carious lesions on root surfaces. This is most likely the result of

A. age related changes in cementum composition.
B. the architecture at the CEJ.
C. age related decrease in salivary flow.
D. changes in dietary pattern.
E. chronic periodontal disease.

Which of the following barbiturates can be used to reduce the frequency of seizures in persons with grand mal seizure disorder?

A. Thiopental.
B. Amobarbital.
C. Secobarbital.
D. Pentobarbital.
E. Phenobarbital.
Which of the following is NOT a direct physiological response to additional forces placed on abutment teeth?

A. Resorption of bone.
B. Increase in trabeculation.
C. Increase in width of cementum.
D. Decrease in width of periodontal ligament.

In determining the ideal proximal outline form for a Class II amalgam cavity preparation in a molar the

1. axial wall should be 1.5mm deep.
2. gingival cavosurface margin must clear contact with the adjacent tooth.
3. proximal walls diverge occlusally.
4. facial and lingual proximal cavosurface margins must just clear contact with the adjacent tooth.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The main purpose of flux in soldering is to

A. dissolve surface oxides and prevent further oxidation.
B. prevent recrystallization and grain growth.
C. prevent oxidation and lower the melting range of the solder.
D. dissolve surface oxides and lower the melting range.

An angina attack in a patient with a known cardiac problem immediately after a tooth extraction was most probably precipitated by

A. a sudden repositioning of the patient into an upright position.
B. a delayed allergic reaction to the anesthetic agent.
C. the stress resulting from the treatment.
D. the use of a vasoconstrictor in the anesthetic agent.

Which of the following drugs is LEAST likely to cause gingival hyperplasia?

A. Cyclosporine.
B. Fluoxetine.
C. Phenytoin.
D. Nifedipine.

Which of the following landmarks may be identified on periapical radiographs of the mandible?

1. External oblique ridge.
2. Mylohyoid ridge.
3. Mental foramen.
4. Coronoid process.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Intraoral soft tissue examination will NOT assist in the diagnosis of

A. lichen planus.
B. sinusitis.
C. erythema multiforme.
D. anemia.
E. vitamin deficiencies.

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Periodontitis
1. develops from gingivitis.
2. is associated with continuous destruction of the alveolar bone.
3. goes through stages of tissue destruction and quiescence.
4. results in occlusal traumatism.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following is/are clinical signs of gingivitis?
1. Loss of stippling.
2. Gingival hyperplasia.
3. Bleeding on probing.
4. Loss of attachment.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following hemostatic agents is most likely to create a systemic reaction?
A. Aluminum sulphate (Pascord®).
B. Aluminum chloride (Hemodent®).
C. Epinephrine (Racord®).
D. Ferric sulphate (Astringedent®).

The survey of the diagnostic cast that is done as part of a removable partial denture design procedure is needed to
1. determine the path of insertion of the removable partial denture.
2. evaluate the retention potential of the abutment teeth.
3. evaluate the modifications needed to create parallel guiding planes.
4. locate the height of contour abutment teeth.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

An incisional biopsy of a clinically suspicious malignant lesion fails to support the clinical diagnosis. The most appropriate management is to
A. reassure the patient that there is no malignancy.
B. contact the pathologist to discuss the case.
C. recall the patient in six months.
D. perform a cytological smear.

Widening of the periodontal space is NOT seen radiographically in
A. trauma from occlusion.
B. orthodontic tooth movement.
C. scleroderma.
D. Paget's disease.
Multiple osteomas and supernumerary teeth may be associated with

A. Gorlin’s syndrome.
B. Rubenstein – Taybi syndrome.
C. Gardner’s syndrome.
D. Cleidocranial dysplasia.
E. Ectodermal dysplasia.

Methyl methacrylate resins will perform better than composite resins for long span, temporary bridges because of superior

A. hardness.
B. fracture toughness.
C. wear resistance.
D. dimensional stability.

A patient wearing complete dentures has angular cheilosis. The most likely cause is

A. increased vertical dimension.
B. insufficient horizontal overlap (overjet).
C. decreased vertical dimension.
D. excessive vertical overlap (overbite).

To improve denture stability, mandibular molar teeth should normally be placed

A. over the crest of the mandibular ridge.
B. buccal to the crest of the mandibular ridge.
C. over the buccal shelf area.
D. lingual to the crest of the mandibular ridge.

Abrasion is most commonly seen on the

A. lingual surface of posterior teeth.
B. occlusal surface of posterior teeth.
C. incisal edges.
D. facial surfaces of teeth.

Which form of hepatitis does NOT have a known carrier state?

A. Hepatitis A.
B. Hepatitis B.
C. Hepatitis C.
D. Hepatitis D.

The purpose of a periodontal dressing is to

A. enhance wound healing.
B. protect the wound from injury.
C. increase patient comfort.
D. All of the above.

Which of the following are possible causes of Bell’s Palsy?

1. Incorrect injection technique.
2. Viral infection.
3. Inflammation of the facial nerve.
4. Surgical trauma.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following congenital problems often results in a malocclusion?

1. Cleft palate.
2. Ectodermal dysplasia.
4. Cleidocranial dysostosis.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

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After initial setting, a chemically cured glass ionomer cement restoration should have a coating agent applied to

A. hasten the final set.
B. protect the cement from moisture.
C. retard the final set.
D. protect the cement from ultraviolet light.
E. create a smooth finish.

A decrease in the particle size of the amalgam alloy will affect the amalgam by

A. increasing flow.
B. decreasing expansion.
C. retarding setting rate.
D. increasing early strength.

The palate grows in length by

A. endochondral growth.
B. apposition on the free edge of the palatine bone.
C. the downward and forward growth of the nasal septum.

Gingivitis is a reversible form of periodontal disease. Gingivitis does not necessarily progress to periodontitis.

A. The first statement is true, the second false.
B. The first statement is false, the second true.
C. Both statements are true.
D. Both statements are false.

The modulus of elasticity of a material is determined by

A. dividing stress by strain below elastic limit.
B. dividing strain by stress.
C. multiplying proportional limit by strain.
D. squaring proportional limit and dividing by strain.

Early detection of a noncavitated smooth surface caries lesion allows for a

A. conservative preparation for a composite resin restoration.
B. conservative preparation for an amalgam restoration.
C. preventive regimen to be implemented to arrest the demineralization and remineralize.
D. conservative preparation for a resin-modified glass ionomer restoration.

An incipient carious lesion on an interproximal surface is usually located

A. vestibular to the contact area.
B. lingual to the contact area.
C. gingival to the contact area.
D. occlusal to the contact area.

Following premature deciduous tooth loss, space problems occur MOST frequently in the area of the

A. maxillary lateral incisor.
B. mandibular central incisor.
C. mandibular second premolar.
D. maxillary first premolar.

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Planing the enamel at the gingival cavosurface of a Class II amalgam preparation on a permanent tooth

A. should result in a long bevel.
B. is contraindicated because of the low edge strength of amalgam.
C. is unnecessary since the tooth structure in this area is strong.
D. should remove unsupported enamel which may fracture.
E. should result in a sharp gingivoproximal line angle.

Which of the following is NOT a component of a dental cartridge containing 2% lidocaine with 1:100,000 epinephrine?

A. Methylparaben.
B. Water.
C. Sodium metabisulphite.
D. Sodium chloride.

The incidence of a second mesiobuccal canal in the maxillary first molar is

A. 40%
B. 60%.
C. 80%.
D. 100%.

An 89 year old patient has rampant caries secondary to vestibular food pocketing. The LEAST likely predisposing disease is

A. Parkinson’s.
B. Lewy body dementia.
C. Alzheimer’s.
D. Addison’s.

Which of the following should NOT be prescribed for a patient receiving warfarin?

A. Acetaminophen.
B. Oxycodone.
C. Ketorolac.
D. Codeine.

The primary objective of initial periodontal therapy is to

A. reduce occlusal trauma.
B. make adequate dietary and nutritional adjustments.
C. remove the colonized masses of microorganisms and calculus.
D. eliminate crowded and tilted teeth.

The most likely cause of periodontal pocket formation following crown preparation is

A. inadequate use of water with the high-speed handpiece.
B. invasion of the biological width.
C. existing periodontal disease.
D. the use of chemical retraction agents.

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At his first post insertion appointment, a patient with a new removable partial denture complains of a tender abutment tooth. The most likely cause is

A. overextended borders of the partial.
B. inadequate polishing of the framework.
C. improper path of insertion.
D. the occlusion.

Which muscle is primarily responsible for moving the mandible to a lateral position?

A. Masseter.
B. Lateral pterygoid.
C. Medial pterygoid.
D. Buccinator.
E. Temporalis.

Which of the following is/are locally delivered antimicrobial(s) agent(s) used to treat infected periodontal pockets?

1. Metronidazole.
2. Chlorhexidine.
3. Doxycycline.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only.
E. All of the above.

The palatine tonsils are found

A. surfacing the posterior third of tongue dorsum.
B. between the palatoglossal and palatopharyngeal arches.
C. on the posterior wall of the nasopharynx.
D. on the bilateral lateral ventral aspects of the tongue.

A patient presents with pain from tooth 4.7 which is an abutment for a 4 unit bridge from 4.4 to 4.7. Clinical and radiographic examinations reveal tooth 4.7 has extensive distal caries and apical rarefying osteitis. The most appropriate initial management is to

A. prescribe an antibiotic and an analgesic and reappoint the patient.
B. perform endodontic therapy through the 4.7 crown.
C. section the bridge at 4.4, remove 4.7 crown and assess 4.7.
D. remove entire bridge and assess restorability of abutments.

Crestal bone loss around implants prior to occlusal loading is more significantly associated with

A. smooth collars.
B. roughened collars.
C. internal connections.
D. external connections.

The absence of lamina dura on a dental radiograph is suggestive of

A. hyperparathyroidism.
B. Paget's disease.
C. hyperthyroidism.
D. vitamin D deficiency.
E. acromegaly.

Which of the following muscles is a depressor of the mandible?

A. Temporalis.
B. Lateral pterygoid.
C. Masseter.
D. Medial pterygoid.

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The signs of chronic periodontitis include
1. inflammation.
2. loss of attachment.
3. bone resorption.
4. periodontal pockets.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following sweeteners used in sugarless gum is most effective in preventing caries? 

A. Xylitol.
B. Sorbitol.
C. Mannitol.
D. Glycerol.

Increasing the kilovoltage setting on the dental x-ray machine results in
A. more gamma radiation.
B. greater collimation.
C. more penetration.
D. greater secondary radiation at the level of the skin.

Which of the following foods is LEAST cariogenic?
A. Canned fruit.
B. Potatoes.
C. Fruit jello.
D. Cheese.
E. White bread.

Aspiration prior to a local anesthetic injection reduces the
A. toxicity of local anesthetic.
B. toxicity of vasoconstrictor.
C. possibility of intravascular administration.
D. possibility of paresthesia.

An opioid, like Fentanyl, can be prescribed in conjunction with
A. benzodiazepines.
B. gabapentin.
C. muscle relaxants.
D. NSAIDs.

Excessive flare of the distobuccal cavosurface margin of a Class II amalgam cavity preparation will result in
A. unsupported enamel at the margin.
B. weak amalgam at the margin.
C. poor retention.
D. poor esthetics.

In the mandibular first premolar, the occlusal dovetail of an ideal disto-occlusal amalgam preparation is usually not extended into the mesial fossa because of the
A. small lingual lobe.
B. large buccal cusp.
C. large buccal pulp horn.
D. prominent transverse ridge.

What type of insurance must a dentist carry in order to practice dentistry in Canada?
A. Malpractice.
B. Office overhead.
C. General liability.
D. Long term disability.
E. Employment.

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A 16 year old healthy patient has good oral hygiene with minimal plaque and calculus, but severe interproximal attachment loss affecting the first molars and incisors. The most likely diagnosis is localized

A. chronic gingivitis.
B. acute gingivitis.
C. aggressive periodontitis.
D. chronic periodontitis.

An indirect pulp capping procedure for primary molar teeth is indicated when

A. caries involves dentin to a depth of 1mm.
B. there is continuous pain.
C. there is radiolucency in the bifurcation.
D. removal of caries will lead to pulp exposure.

Hydrocolloid impressions are removed from the mouth with a snap because they exhibit

A. syneresis.
B. imbibition.
C. viscoelasticity.
D. low elastic recovery.
E. low tear strength.

Tetracyclines

1. have no side effects.
2. may increase susceptibility to superinfections.
3. are safe to use during pregnancy.
4. have a wide spectrum of antibacterial activity.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Squamous cell carcinomas of the lip occur most frequently on the

A. commissures.
B. lower lip near the midline.
C. inner surface of upper lip.
D. inner surface of lower lip.
E. upper lip near the midline.

A hardened gold alloy will exhibit

A. less plastic deformation per unit of stress than the same alloy in a softened condition.
B. greater plastic deformation per unit of stress than the same alloy in a softened condition.
C. no difference in the plastic deformation per unit of stress of the alloy in hard or soft condition.

Streptococcus mutans colonizes

A. cusp surfaces of teeth.
B. pits and fissures of teeth.
C. on the tongue.
D. at pH of 2.5.

The best time to begin interceptive orthodontic treatment for a patient with a skeletal Class II malocclusion is

A. as soon as the malocclusion is diagnosed.
B. immediately following complete eruption of the deciduous dentition.
C. immediately following complete eruption of the first permanent molars.
D. several months prior to the pre-pubertal growth spurt.
E. after skeletal maturity.

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Primary herpetic gingivostomatitis most frequently occurs

A. before age 10.
B. between 10 and 20 years of age.
C. between 20 and 30 years of age.
D. after age 30.
E. at any age.

Which of the following is NOT a consequence of vital bleaching with 10% carbamide peroxide?

A. Reversible tooth sensitivity.
B. Soft tissue sloughing.
C. Sore throat.
D. Weakening of the enamel.

Unbagged sterilized instruments

A. can be stored for up to 24 hours if placed in an airtight container after sterilization.
B. can be stored for up to 7 days if placed in sterile bags after sterilization.
C. can be stored for up to 1 year if wrapped after sterilization.
D. must not be stored after sterilization.

After initial setting, glass ionomer cements should have a coating agent applied in order to

A. hasten the final set.
B. protect the cement from moisture.
C. retard the final set.
D. protect the cement from ultraviolet light.
E. create a smooth finish.

Healthy attached gingiva

A. has no basal cell layer.
B. is closely bound to underlying periosteum.
C. contains elastic fibers.
D. has no rete pegs.

A therapeutic advantage of penicillin V over penicillin G is

A. greater resistance to penicillinase.
B. broader antibacterial spectrum.
C. greater absorption when given orally.
D. slower renal excretion.
E. None of the above.

Under normal conditions, the most definitive test to confirm the loss of pulp vitality is

A. applying warm gutta percha to the crown.
B. cutting into the dentin without anesthetic.
C. applying ethyl chloride to the crown.
D. performing a radiographic examination of the tooth.
E. performing an electric pulp test.

Which of the following structures affects the thickness of the flange of a maxillary complete denture?

A. Malar process.
B. Coronoit process.
C. Mylohyoid ridge.
D. Zygomatic process.
E. Genial tubercle.
A significant mechanism by which acetylsalicylic acid produces its analgesic and anti-inflammatory effect is

A. antagonism of histamine.
B. inhibition of prostaglandin synthesis.
C. local anesthetic effect on pain fibres.
D. release of adrenal steroids from the adrenal cortex.
E. synaptic inhibition in the dorsal column.

If the lining cement is left on the gingival cavosurface margin of a Class II amalgam restoration,

A. A. cement dissolution will lead to leakage.
B. B. the preparation will lack retention form.
C. C. the preparation will lack resistance form to bulk fracture.
D. D. the preparation will lack appropriate outline form.

Primary herpetic lesions of the oral cavity are MOST LIKELY to occur during

A. 1 to 5 years.
B. 6 to 12 years.
C. 13 to 16 years.
D. Any age.

Treatment of primary herpetic gingivostomatitis should include

1. steroid therapy.
2. palliative treatment.
3. control of secondary infection.
4. application of dilute hydrogen peroxide.

A. (1) and (3)
B. (1) and (4)
C. (2) and (3)
D. (2) and (4)
E. All of the above.

The tissue which cannot be seen on dental radiographs is

A. dentin.
B. enamel.
C. cementum.
D. pulp.
E. periodontal ligament.

Which of the following medications can cause gingival enlargement?

A. Diuretics.
B. Beta blockers.
C. Calcium channel blockers.
D. Angiotensin converting enzyme inhibitors.

Calculus contributes to periodontal disease through

A. bacterial plaque retention.
B. mechanical irritation.
C. chemical irritation.
D. All of the above.

During the act of swallowing, the auditory (pharyngotympanic) tube is

A. opened by the tensor tympani muscle.
B. closed by the tensor tympani muscle.
C. opened by the tensor veli palatine muscle.
D. closed by the levator veli palatine muscle.
E. closed by the superior constrictor muscle.

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Following an inferior alveolar block injection of 2% lidocaine with 1:100,000 epinephrine, a patient experiences a transient tachycardia. Which is the most likely cause of this reaction?

A. Vasovagal syncope.
B. An allergic reaction.
C. Myocardial infarction.
D. Intravascular injection.
E. An anaphylactoid reaction.

Which of the following is consistent with the features of an arrested carious lesion in an occlusal fissure?

A. A small cavitated lesion with exposed dentin.
B. A white spot lesion with a frosty surface.
C. A lesion extending into dentin on a bitewing radiograph.
D. A brown spot lesion with a hard surface.

Gingival connective tissue fibres are primarily composed of

A. collagen.
B. reticulin.
C. elastin.
D. oxytalin.

Following subgingival curettage, the amount of gingival shrinkage depends upon

A. the thickness of the free gingiva.
B. the degree of edematous hyperplasia present.
C. whether the pocket orifice is broad or narrow.
D. the degree of suppuration present.
E. All of the above.

Gingivitis is characterized by

A. bleeding on probing.
B. loss of attachment.
C. alveolar bone loss.
D. apical migration of the junctional epithelium.

Which of the following is/are associated with dentin dysplasia type I?

1. Obliteration of pulp chambers.
4. Periapical radiolucent areas.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A survey of the master cast shows that the 3.5 and 3.7 abutments for a fixed partial denture have different paths of insertion with respect to 3.7. A semi-precision attachment is chosen rather than preparing the teeth again. Where should the male part of the attachment ideally be located?

A. Distal of the 3.5 retainer.
B. Distal of the 3.6 pontic.
C. Mesial of the 3.7 retainer.
D. Mesial of the 3.6 pontic.

Of the following structures, which would be projected closest to the occlusal plane when taking a mandibular posterior periapical radiograph?

A. External oblique ridge.
B. Mandibular canal.
C. Submandibular salivary gland fossa.
D. Mental foramen.

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The first sensation lost after administration of a local anesthetic is
A. pain.
B. touch.
C. pressure.
D. proprioception.

A bitewing radiograph of tooth 1.4 reveals caries penetrating one third into the mesial enamel. The correct management of tooth 1.4 is to
A. place an amalgam restoration.
B. place a porcelain inlay.
C. place a direct composite restoration.
D. apply fluoride and improve oral hygiene.

The layer of intermingled collagen and resin located beneath a restoration is called the
A. smear layer.
B. hybrid layer.
C. Weil layer.
D. decalcification layer.

A 3 year old patient complains of pain of the mouth and headaches for 24 hours. The clinical exam reveals bilateral painful regional lymphadenopathy and bad breath. Vesicles are seen on the hard palate, the soft palate, the gingiva, the tongue and the lips. The patient’s temperature is 38.5°C. What is the most probable diagnosis?
A. Erythema multiforme.
B. Herpetic gingivostomatitis.
C. Hand-foot-mouth disease.
D. Herpetiform aphtae ulcers.

Mandibular growth
A. is sustained over a longer period of time in girls.
B. is sustained over a longer period of time in boys.
C. occurs at the same chronologic age in both sexes.
D. occurs two years earlier in boys than in girls.

Which of the following is NOT a function of the wedge in the restoration of a Class II cavity with amalgam?
A. It separates the teeth to allow restoration of the contact.
B. It assists in the adaptation of the matrix band to the proximal portion of the preparation.
C. It absorbs moisture from the cavity preparation, allowing the restoration to be placed in a dry field.
D. It provides stability to the matrix band and retainer assembly.

A 17 year old male patient exhibits delayed eruption of permanent teeth. Radiographs indicate multiple, impacted permanent teeth. The patient’s head size is large with prominent frontal eminences and slightly constricted facial features. The most likely diagnosis is
A. osteopetrosis.
B. osteitis deformans.
C. Gardner’s syndrome.
D. acromegaly.
E. cleidocranial dysplasia.
The washing of hands must be performed before putting on and after removing gloves because it

1. reduces the number of skin bacteria which multiply and cause irritation.
2. completely eliminates skin bacteria.
3. minimizes the transient bacteria which could contaminate hands through small pinholes.
4. allows gloves to slide on easier when the hands are moist.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A space maintainer in the posterior segment will:

A. prevent extrusion of opposing teeth.
B. prevent the eruption of the permanent teeth.
C. retard eruption of the permanent teeth.
D. maintain arch length.

Amalgam is condensed to

1. further break down the alloy particles.
2. force the alloy particles together.
3. complete the trituration process.
4. express excess mercury content.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following medications does NOT cause gingival hyperplasia?

A. Cyclosporine.
B. Nifedipine.
C. Phenytin.
D. Carbamazepine.

Patients with a history of ankle swelling, shortness of breath and orthopnea are most likely suffering from

A. asthma.
B. emphysema.
C. congestive heart failure.
D. constrictive pericarditis.

Down syndrome is associated with

A. hypertelorism.
B. papular rash.
C. mandibular prognatism.
D. Hutchinson’s teeth.
E. macroglossia.
Compared to unfilled resins, composite resins have

1. reduced thermal dimensional changes.
2. increased strength.
3. reduced polymerization shrinkage.
4. better polishability.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The optimal time for orthodontic treatment involving growth modification is during the

A. late primary dentition.
B. early mixed dentition.
C. late mixed dentition.
D. early permanent dentition.

Which of the following conditions is characterized by abnormally large pulp chambers?

A. Amelogenesis imperfecta.
B. Regional odontodysplasia.
C. Dentinogenesis imperfecta.
D. Dentinal dysplasia Type I.

High plasma levels of local anesthetics may cause

A. inhibition of peristalsis.
B. stimulation of the central nervous system.
C. inhibition of the vagus nerve to the heart.
D. depression of the central nervous system.

A healthy 78 year old patient presents with three new carious lesions on root surfaces. This is most likely the result of

A. age related changes in cementum composition.
B. the architecture at the CEJ.
C. changes in dietary pattern.
D. chronic periodontal disease.

Desquamation of the gingiva usually occurs as a result of

A. inflammation.
B. benign neoplasia.
C. normal cell turnover.
D. a developmental abnormality.

Closure of a 2mm maxillary midline diastema by orthodontic treatment is best accomplished

A. prior to complete eruption of the maxillary central incisors.
B. prior to eruption of the maxillary lateral incisors.
C. after complete eruption of the maxillary lateral incisors.
D. during intra-oral emergence of the maxillary canines.
E. after complete eruption of the maxillary canines.

During the setting phase, a dental stone mixture will exhibit

A. expansion.
B. contraction.
C. loss in compressive strength.
D. gain in moisture content.
Serial extraction may result in
1. deepening of the overbite.
2. lingual tipping of the mandibular incisors.
3. regional extraction spacing.
4. uncontrolled tipping of the permanent teeth.

Tooth mobility may be due to
1. excessive occlusal force.
2. decreased osseous support.
3. periodontal abscess.
4. gingival inflammation.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

In the treatment of necrotizing ulcerative gingivitis with associated lymphadenopathy, which of the following medications is the most effective?

A. An anti-inflammatory.
B. A topical antibiotic.
C. A systemic antibiotic.
D. An analgesic.

The gingival margin of the preparation for a full crown on a posterior tooth, with a clinical crown that satisfies the requirements for retention and resistance, should be placed
A. 0.5mm subgingivally.
B. on the enamel.
C. at least 1mm supragingivally.
D. at the cemento-enamel junction.
E. at the gingival margin.

An 8 year old patient with all primary molars still present exhibits a cusp-to-cusp relationship of permanent maxillary and mandibular first molars and good alignment of the lower incisors. The management of this patient should be to

A. refer for orthodontic consultation.
B. use a cervical headgear to reposition maxillary molars.
C. disk the distal surfaces of primary mandibular second molars.
D. place patient on appropriate recall schedule.

The most frequent cause of malocclusion is
A. thumbsucking.
B. mouth breathing.
C. heredity.
D. ectopic eruption.

Cleidocranial dysostosis can be associated with
(a)

A. premature loss of teeth.
B. micrognathia.
C. high incidence of clefts.
D. associated high caries index.
E. multiple supernumerary and unerupted teeth.
To assess factors affecting the utilization of dental services, a cross-sectional study surveyed adults on a number of variables. Considering the study design, which of the following findings CANNOT be derived from the results?

A. Satisfaction with the services.
B. Gender differences.
C. Caries incidence.
D. Utilization of dental services.

The most appropriate management for a patient with bilateral temporomandibular joint clicking without pain is

A. no treatment.
B. temporomandibular joint surgery.
C. an anterior repositioning splint.
D. cortisone injections.

A survey of the master cast shows that the 3.5 and 3.7 abutments for a fixed partial denture have different paths of insertion with respect to 3.7. A semi-precision attachment is chosen rather than preparing the teeth again. Where should the male part of the attachment ideally be located?

A. Distal of the 3.5 retainer.
B. Distal of the 3.6 pontic.
C. Mesial of the 3.7 retainer.
D. Mesial of the 3.6 pontic.

A Class II amalgam preparation on a primary tooth does NOT require a gingival bevel because the enamel rods in the area incline

A. gingivally.
B. horizontally.
C. occlusally.
D. vertically.

Which tooth movement is NOT possible with a removable appliance?

A. Crown tipping.
B. Root uprighting.
C. Crown rotation.

Following the insertion of complete dentures, a generalized soreness over the entire mandibular alveolar ridge can be caused by

A. Inadequate interocclusal distance.
B. impingement on the buccal frenum.
C. high muscle attachments.
D. excess border thickness.

In hyperparathyroidism, typical features of bone involvement are

1. subperiosteal erosion of the phalanges.
2. osteopetrosis.
3. pathological fractures.
4. renal stones.

A. (1) (3) (4)
B. (1) and (3)
C. (2) and (4)
D. All of the above.

Methemoglobinemia is a potential complication of an excessive dose of

A. bupivacaine.
B. lidocaine.
C. mepivacaine.
D. prilocaine.
A patient diagnosed with multiple mucosal neuromas should be further evaluated for the possibility of

A. premalignant adenomatous polyposis coli.
B. hamartomatous polyps of the small intestine.
C. congenitally missing first premolars.
D. multiple palmar or facial basal cell carcinomas.
E. neoplasms of endocrine organs.

All the following medications can be used for the treatment of *Candida albicans* EXCEPT

A. nystatin.
B. fluconazole.
C. chlorhexidine.
D. amoxicillin.

Epstein-Barr virus is associated with which of the following?

1. Shingles.
2. Oral hairy leukoplakia.
3. Chickenpox.
4. Infectious mononucleosis.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

In complete denture construction, custom trays are recommended for silicone and rubber base impression materials to

A. obtain a uniform thickness of material.
B. facilitate removal of the impression.
C. allow for a more uniform setting of the material.
D. eliminate the need for a tray adhesive.

A patient's 4 mandibular incisors were traumatized 3 years ago in an accident. Radiographs now show apical radiolucencies associated with all 4 teeth. The most appropriate management is to

A. test the pulp vitality and perform root canal therapy on teeth with no response.
B. perform root canal therapy on all 4 teeth and curette the periapical area.
C. extract the teeth and place a bonded bridge.
D. postpone treatment and recheck status periodically.

The body of the mandible increases in length to accommodate the permanent second molar by

A. apposition of bone in the condyle.
B. resorption of bone along the anterior border of the ramus and apposition of bone on the posterior border of the ramus.
C. apposition of bone on the alveolar margin and lower border of the body of the mandible.
D. apposition of bone at the symphysis and posterior border of the ramus of the mandible.
E. anterior growth.

A drug with anticholinergic side effects may cause

A. convulsions.
B. diarrhea.
C. tremors.
D. xerostomia.
Which of the following cells are involved in an immune response to plaque in the periodontal pocket?

1. Macrophages.
2. Plasma cells.
3. Lymphocytes.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

To ensure maximum marginal strength for an amalgam restoration the cavosurface angle should

A. approach 45 degrees.
B. approach 90 degrees.
C. be bevelled.
D. be chamfered.

A 52 year old patient presents with a limitation of mouth opening. The patient has loss of attached gingivua and multiple areas of gingival recession. A panoramic radiograph shows diffuse widening of the periodontal ligament. The most likely diagnosis is

A. scleroderma.
B. hyperparathyroidism.
C. cicatricial pemphigoid.
D. erythema multiforme.
E. advanced adult periodontitis.

Necrotizing ulcerative gingivitis (NUG) and acute herpetic gingivostomatitis can be differentiated clinically by (the)

A. location of the lesions.
B. temperature of the patient.
C. pain.
D. lymphadenopathy.

In a safe general anesthetic mixture, the MINIMALLY acceptable percentage of oxygen is

A. 5%.
B. 10%.
C. 20%.
D. 50%.
E. 80%.

Folate deficiency is associated with an increased risk of

A. birth defects.
B. microcytic anemia.
C. low serum homocysteine.
D. elevated high-density lipoprotein cholesterol.

A 4 year old with a thumbsucking habit presents with a 1.5cm anterior open bite, a unilateral posterior crossbite and a 5mm midline deviation. If the habit ceases within six months, the anterior open bite will, over time, most likely

A. remain the same.
B. increase.
C. decrease.
D. decrease and the midline will correct.

Hemangiomas of the jaws

A. never occur in bone.
B. are malignant.
C. can appear cystic radiographically.
D. are metastatic lesions.
The radiographic images most suggestive of multiple myeloma is

A. multiple radiopaque lesions.
B. punched out radiolucent lesions.
C. ground glass appearance.
D. generalized hypercementosis.

Systemic or topical cortisone therapy is used in the treatment of

A. necrotizing ulcerative gingivitis.
B. erythema multiforme.
C. submaxillary cellulitis.
D. ptyalism.
E. herpes simplex.

A patient complains of intermittent spontaneous pain in a tooth that was previously treated with a direct pulp cap. The tooth is not sensitive to percussion. Both hot and cold produce severe pain. The most likely diagnosis is

A. reversible pulpitis.
B. irreversible pulpitis.
C. cracked tooth syndrome.
D. acute periradicular periodontitis.

Wrought gold alloy clasps are superior to cast gold clasps of the same cross-sectional area because they

1. are coarser grained.
2. exhibit greater flexibility
3. are more accurately adapted to the tooth.
4. have a higher proportional limit.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following statements about fats/lipids is correct?

A. Naturally occurring trans fats have been confirmed to increase disease risk.
B. LDL-cholesterol is found in foods of only animal origin.
C. Most of the cholesterol circulating in the human body is synthesized by the body.
D. The essential fatty acids are only the omega-3 fats.

In clinical dentistry, stiffness of wire is a function of

A. length of the wire segment.
B. diameter of the wire segment.
C. alloy composition.
D. All of the above.
E. None of the above.

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The mesial furcation of maxillary first molars is best probed from the

A. buccal.
B. buccal or lingual.
C. lingual.

Absence of occlusal contacts on a provisional restoration may result in the definitive restoration exhibiting

A. heavy occlusal contact.
B. no occlusal contact.
C. tight proximal contacts.
D. open proximal contacts.

The parasympathetic post ganglionic fibers leaving the otic ganglion will travel along which cranial nerve?

A. Glossopharyngeal.
B. Branch of the mandibular.
C. Temporal.
D. Facial.

An impacted mandibular third molar can be displaced into the submandibular space during its surgical removal when the

A. attachment of the mylohyoid muscle is inferior to the level of the roots.
B. roots of the mandibular third molar lie close to the buccal cortex.
C. buccal cortical bone in the mandibular third molar area is extremely thin.
D. bone on the lingual surface is fenestrated inferior to the mylohyoid muscle.

One week after an amalgam restoration is placed in the mandibular first premolar, the patient returns complaining of a sharp pain of short duration when eating or drinking something cold. Teeth respond normally to electric pulp testing and heat and the radiographs are normal. The most likely diagnosis is

A. hypercementosis.
B. reversible pulpitis.
C. pulpal microabscess.
D. acute periradicular periodontitis.

An excessively thick palatal bar of a maxillary partial denture will

A. cause injury to the abutment teeth.
B. distort under occlusal stress.
C. irritate the palatal tissues.
D. cause difficulty in swallowing.

Which of the following muscles contribute to the protrusion of the mandible?

A. Medial pterygoids.
B. Geniohyoids.
C. Lateral pterygoids.
D. Temporals.

Which one of the following describes the position of the needle tip during administration of local anesthetic for the inferior alveolar nerve block?

A. Anterior to the pterygomandibular raphe.
B. Medial to the medial pterygoid muscle.
C. Superior to the lateral pterygoid muscle.
D. Lateral to the sphenomandibular ligament.

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A preparation for a Class II amalgam restoration in primary molars should include

A. occlusally divergent buccal and lingual walls.
B. an axial wall that parallels the dentino-enamel junction.
C. an isthmus that occupies two thirds of the intercuspal distance.
D. undercut enamel and dentin.

Hydantoin (Phenytoin®) treatment causes gingival hyperplasia as a result of a/an

A. increased number of epithelial cells.
B. thickening of the basement membrane.
C. increased production of proteoglycans.

Which of the following cells are characteristic of chronic inflammation of the dental pulp?

1. Plasma cells.
2. Macrophages.
3. Lymphocytes.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

It is possible to misdiagnose the midline palatal suture as a

A. fracture.
B. palatal cyst.
C. granuloma.
D. abscess.

When performing a functional analysis of occlusion, the mandible may be observed to exhibit a shift from centric relation to centric occlusion in all but one of the following directions:

A. forward.
B. backward.
C. upward.
D. lateral.

A removable partial denture rest should be placed on the lingual surface of a canine rather than on the incisal surface because

A. less leverage is exerted against the tooth by the rest.
B. the enamel is thicker on the lingual surface.
C. visibility and access are better.
D. the cingulum of the canine provides a natural recess.

A midfacial probing depth measurement where the base of the pocket extends beyond the mucogingival junction indicates that

A. gingival hyperplasia is present.
B. there is no attached gingiva.
C. occlusal trauma is present.
D. gingival recession is present.

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Gingival enlargement may result from the administration of

1. nifedipine.
2. cyclosporine.
3. phenytoin sodium.
4. prednisolone.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Amphetamines

1. increase mental alertness and decrease fatigue.
2. are analeptics.
3. have no effect on psychomotor activity.
4. are useful in controlling arrhythmias.

A. (1) and (3)
B. (2) and (4)
C. (4) only
D. All of the above.

Following the injection of 1.8ml of 2% lidocaine with 1:100,000 epinephrine, a nervous 22-year old male with well controlled insulin dependent diabetes states that he feels dizzy and weak. Beads of sweat have accumulated on his forehead and upper lip. He is quite pale. The initial management of this patient is to

A. administer glucagon 1.0mg.
B. administer epinephrine 0.5mg.
C. administer Benadryl (diphenhydramine) 50mg.
D. elevate the patient's legs and administer 100% oxygen.
E. call 911 and begin CPR.

Speech defects associated with a maxillary partial denture can be caused by

1. replacing the teeth too soon after extraction.
2. providing excessive bulk of denture base.
3. posterior palatal extension too far posteriorly.
4. positioning anterior teeth incorrectly.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following is NOT a manifestation of hyperglycemia?

A. Moist skin.
B. Acetone breath.
C. Abdominal pain.
D. Decreased consciousness.

Which of the following is necessary for collagen formation?

A. Vitamin A.
B. Vitamin C.
C. Vitamin D.
D. Vitamin E.
E. Vitamin K.

In a standard dental cartridge (carpule) containing 1.8ml 2% lidocaine with epinephrine 1/100,000, the amount of vasoconstrictor is

A. 18.0 mg.
B. 0.018 mg.
C. 1.8 mg.
D. 0.18 mg.
E. 180.0 mg.
The periodontium is best able to tolerate forces directed to a tooth

A. horizontally.
B. laterally.
C. obliquely.
D. vertically.

During the pharyngeal phase of swallowing, motor neurons in the swallowing center are activated to

A. open the lower esophageal sphincter.
B. inhibit respiration.
C. initiate the secondary peristaltic wave.
D. open the palatopharyngeal folds.

The cell of the dental pulp most capable of transforming into other cells is the

A. fibroblast.
B. undifferentiated mesenchymal cell.
C. odontoblast.
D. histiocyte.

Which of the following will impede healing following the surgical closure of an oro-antral fistula?

1. Poor flap design.
2. Excessive tissue tension.
3. Blowing the nose.
4. Sinus infection.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

To prevent mesial drift of a permanent first molar, the ideal time to place a distal extension space maintainer is

A. as soon as the tooth erupts through the gingival tissue.
B. after the permanent second molar has erupted.
C. immediately after extraction of the primary second molar.
D. as soon as the extraction site of the primary second molar has completely healed.

What is the most effective local anesthetic technique for a patient with trismus who requires a pulpectomy on a mandibular molar?

A. Mental nerve block.
B. Gow-Gates block.
C. Vazirani-Akinosi block.
D. Inferior alveolar nerve block.
E. Buccal nerve block.

As a dentist in Canada, it is ethical to refuse to treat a patient on the basis of

1. religious beliefs.
2. physical handicap.
3. infectious disease.
4. recognition of lack of skill or knowledge.

Which of the following is NOT a direct physiological response to additional forces placed on abutment teeth?

A. Resorption of bone.
B. Increase thickness of cementum.
C. Increased density in cribiform plate.
D. Decrease in width of periodontal ligament.

E. All of the above.
Patients with a history of rheumatic fever and known heart valve damage should be given prophylactic antibiotic coverage before dental extractions because of the risk of

A. myocardial infarction.
B. subacute bacterial endocarditis.
C. cardiac arrest.
D. All of the above.

While the teeth are set in wax, dentures are tried in to

1. verify the maxillomandibular records.
2. verify the vertical dimension of occlusion.
3. evaluate esthetics.
4. assess facial contour and lip support.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following affect(s) polymerization of visible light cured composite resins?

1. Intensity of the light source.
2. Thickness of composite resin.
3. Proximity of light source.
4. Shade of composite resin.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following drugs is used in the treatment of mild allergic reactions?

A. Isoproterenol.
B. Meperidine hydrochloride.
C. Diphenhydramine hydrochloride.
D. Propoxyphene.

Which of the following affect(s) polymerization of visible light cured composite resins?

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

In x-ray equipment, kilovoltage controls

1. contrast.
2. speed of electrons.
3. penetrating power of radiation.
4. amount of radiation produced.

A. (1) (2) (3)
B. (1) and (3)
C. (1) and (4)
D. (4) only
E. All of the above.

Using less water for mixing plaster of Paris will result in set plaster that

A. contracts.
B. is stronger.
C. is more porous.
D. is less brittle.

Assuming daily maximums are not exceeded, which of the following is/are appropriate for pain management for an adult with a history of severe asthma and nasal polyps following an emergency pulpectomy?

A. Naproxen 250 mg, every 6 to 8 hours.
B. Acetylsalicylic acid 650 mg every 4 hours.
C. Ketorolac 10 mg every 4 hours.
D. Acetaminophen 100 mg every 4 hours.

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Correction of an Angle Class II, division 1 malocclusion has the best prognosis when the

1. maxillary incisors are tipping labially.
2. skeletal bases are harmonious.
3. dentition is mildly crowded or spaces.
4. lower face height is long.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Increasing the amount of network modifiers (e.g. CaO, Na₂O) in porcelain will

A. increase its fusion temperature.
B. decrease its thermal expansion.
C. increase its chemical reactivity.
D. decrease its potential for devitrification upon heating.

A smooth-surfaced, solid, exophytic oral mucosal lesion with no colour change is most likely a/an

A. mucocele.
B. papilloma.
C. hemangioma.
D. fibroma.
E. intramucosal nevus.

In addition to iron, calcium and folate, which of the following nutrients is of special concern during pregnancy?

A. Vitamin B₁₂.
B. Pyridoxine.
C. Vitamin D.
D. Ascorbic acid.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following is NOT a malignant lesion of the gingiva?

A. Neurofibroma.
B. Proliferative verrucous leukoplakia.
C. Sarcoma.
D. Squamous cell carcinoma.

A. atrophic thinning of the oral mucosa.
B. ulceration.
C. necrosis.
D. spontaneous bleeding.
E. All of the above.

Following root planing, a patient experiences thermal sensitivity. This pain is associated with which of the following?

A. Golgi receptor.
B. Free nerve endings.
C. Odontoblastic processes.
D. Cementoblasts.

A smooth-surfaced, solid, exophytic oral mucosal lesion with no colour change is most likely a/an

A. mucocele.
B. papilloma.
C. hemangioma.
D. fibroma.
E. intramucosal nevus.

After pulpotomy of a permanent central incisor in an 8-year old child, the most important clinical criterion/criteria of success is/are:

1. completion of root formation.
2. retained natural colour of the tooth.
3. secondary dentin bridge formation.
4. formation of pulp stones.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Side effects of chemotherapeutic treatment for malignancy include

A. atrophic thinning of the oral mucosa.
B. ulceration.
C. necrosis.
D. spontaneous bleeding.
E. All of the above.

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Which of the following instruments can be used for placing gingival bevels on inlay preparations?

1. Margin trimmers.
2. Enamel hatchets.
3. Carbide finishing burs.
4. Small diamond disks.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The initiation of cemental caries differs from enamel caries because

A. dental plaque is not involved.
B. the age of onset is younger.
C. it is usually associated with abrasion.
D. it progresses more quickly.

In drug synergism

A. the effect of the combination of two drugs is greater than the sum of their individual effects.
B. a drug accumulates in the body at a faster rate than it is destroyed or removed.
C. a drug is concentrated in the kidneys.
D. a drug produces active metabolites.
E. the concentration of the drug increases with time.

A patient wants to reduce her caries risk and asks her dentist to recommend an alternate sweetener that can be used in baking. Which of the following should NOT be recommended?

A. Equal® (aspartame).
B. Splenda® (sucralose).
C. Sugar Twin® (sodium cyclamate).
D. Xyla® (xylitol).

A patient complains of sensitivity following placement of a conservative posterior composite resin restoration. The most probable cause is

A. acid etching.
B. polymerization shrinkage.
C. unpolymerized resin.
D. prolonged application of the curing light.
E. inadequate base thickness.

Which of the following is seen in primary herpetic gingivostomatitis, herpes simplex, herpes zoster and varicella?

A. Macules.
B. Papules.
C. Vesicles.
D. Pustules.

Naloxone reverses respiratory depression caused by

A. meperidine.
B. lorazepam.
C. alcohol.
D. phenobarbital.

An infected root is accidentally displaced into the maxillary sinus. Examination of the socket reveals perforation of the sinus lining. Therapy should consist of

1. acrylic template to cover socket opening and saline rinses.
2. closure of oro-antral communication and antibiotic coverage.
3. antibiotic coverage and observation.
4. antrostomy for retrieval of root.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only.
E. All of the above.

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What is the most appropriate design for a study that is started after the exposure to a risk factor but before the disease started? 

A. Case series.  
B. Randomized trial.  
C. Case-control.  
D. Cohort.

A patient fails to demonstrate effective plaque control during initial periodontal therapy for moderate periodontitis. The most appropriate management is  

A. continued initial therapy.  
B. gingival curettage.  
C. gingivectomy.  
D. an apically positioned flap.

The most appropriate management for a patient with mild anterior crowding in an early mixed dentition is to  

A. strip all proximal contacts.  
B. extract the deciduous canines.  
C. perform a space analysis.  
D. regain space in the arch.

In treatment of an Angle Class-II, Division 2, the Frankel functional regulator is designed to perform all the following EXCEPT  

A. increase vertical dimension.  
B. reposition the mandible forward.  
C. retract the maxillary molars.  
D. expand the dental arches.

The full palatal strap major connector is indicated where  

A. there is a high, narrow palatal vault.  
B. a well-defined, undercut palatal torus is present.  
C. very few teeth remain in a flat or U-shaped arch.  
D. palatal tissue is soft and compressible.

Endodontic therapy is CONTRAINDICATED in teeth with  

A. inadequate periodontal support.  
B. pulp stones.  
C. constricted root canals.  
D. accessory canals.  
E. curved roots.

The principal cellular sites of the cytochrome P450 system are  

A. cardiomyocytes.  
B. pneumocytes.  
C. splenocytes.  
D. hepatocytes.

Which of the following characteristics is NOT seen in all patients with aggressive periodontitis?  

A. Rapid attachment loss and bone destruction.  
B. Amount of microbial deposits inconsistent with disease severity.  
C. Diseased sites infected with Aggregatibacter (Actinobacillus) actinomycetemcomitans.  
D. Familial aggregation of diseased individuals.
If left untreated in a patient who is not pregnant, a pyogenic granuloma will over time most likely

A. shrink.
B. remain unchanged.
C. continue to enlarge.
D. shrink and enlarge cyclically.

The most likely cause of a cavernous sinus thrombosis is a periradicular abscess of a maxillary

A. first molar.
B. central incisor.
C. second premolar.
D. third molar.

Dental implants are CONTRAINDICATED in patients who

1. are over age 80.
2. have unrepaired cleft palates.
3. are taking anticoagulants.
4. have uncontrolled diabetes mellitus.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

In the design of a removable partial denture, the objectives of surveying the diagnostic cast are to

1. determine the path of insertion.
2. locate tooth surfaces that can act as guiding planes.
3. locate retention areas.
4. locate the height of contour.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A removable partial denture rest should be placed on the lingual surface of a canine rather than on the incisal surface because

A. less leverage is exerted against the tooth by the rest.
B. the enamel is thicker on the lingual surface.
C. visibility and access are better.
D. the cingulum of the canine provides a natural recess that does not need to be prepared.

For a patient taking warfarin, which laboratory test provides the most accurate information on coagulation time?

A. Activated partial thromboplastin time.
B. Ivy bleeding time.
C. Platelet count.
D. INR.
E. Thrombin time.

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Which of the following is characteristic of a maxillary sinus retention cyst/antral pseudocyst?

A. Pain and soreness of the face.
B. Dome-shaped appearance on a radiograph.
C. Buccal expansion of the maxillary sinus.

Resin bonding of composites to acid-etched enamel results in

A. decreased polymerization shrinkage of the resin.
B. decreased crack formation in the enamel.
C. reduced microleakage.
D. elimination of post-operative sensitivity.
E. improved wear resistance of the composite.

If an odontogenic infection involves the pterygomandibular space, the most obvious clinical sign will be

A. trismus.
B. facial swelling.
C. swelling in the submandibular area.
D. rise in body temperature above 39°C (102°F).

A radicular cyst

A. enlarges rapidly.
B. infiltrates bone.
C. contains fluid.
D. cannot cause cortical bone expansion.
E. is associated with a vital tooth.

The single most important measure to reduce the risk of transmitting organisms to patients is

A. use of personal protective barriers: masks, eyewear, outerwear and gloves.
B. sterilization of instruments and disinfection of the operatory.
C. handwashing.
D. introduction of single use instruments and disposables.

In radiography, minimum magnification and maximum definition are achieved by

A. minimum OFD (object-film distance) and minimum FFD (focal-film distance).
B. minimum OFD (object-film distance) and maximum FFD (focal-film distance).
C. maximum OFD (object-film distance) and maximum FFD (focal-film distance).
D. maximum OFD (object-film distance) and minimum FFD (focal-film distance).

In taking an interocclusal wax record in a protrusive position, the dentist should examine the wax record to insure that

A. the incisal edges of the anterior teeth have made contact.
B. the patient has not closed in a lateral position.
C. all cusps have penetrated the wax record and are in contact with the opposing teeth.
D. there is no perforation of the wax record.

Which of the following may be used to disinfect gutta-percha points?

A. Glass bead sterilizer.
B. Autoclave.
C. Chemical solutions.
D. Flame sterilization.
E. Dry heat sterilization.

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Physiologic (racial) pigmentation differs from melanoma because melanoma

A. is macular.
B. contains melanin.
C. affects the gingiva.
D. undergoes clinical changes.

Gold alloy can be given a white colour by introducing sufficient

A. zinc.
B. copper.
C. cadmium.
D. palladium.

The selection of a vasoconstrictor for a local anesthetic depends upon the

1. duration of the procedure.
2. need for hemostasis.
3. medical status of the patient.
4. type of procedure.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The most appropriate management for a tooth with a history of previous trauma that now exhibits apical resorption is

A. observation over 6 months for further resorption.
B. complete instrumentation and medication with intracanal calcium hydroxide.
C. immediate instrumentation and obturation followed by apical curettage.
D. extraction, apical resection, retrofilling and replantation.
E. extraction and replacement with a fixed or removable prosthesis.

Which of the following should NOT be prescribed for a patient receiving warfarin?

A. Acetylsalicylic acid.
B. Oxycodone.
C. Acetaminophen.
D. Codeine.

Compared to a full thickness flap, a partial-thickness (split-thickness) flap will

A. increase the loss of marginal bone.
B. reduce infraosseous defects.
C. provide improved surgical access.
D. increase the amount of attached gingiva.
E. reduce healing time.

The higher modulus of elasticity of a chromium-cobalt-nickel alloy, compared to a Type IV gold alloy, means that chromium-cobalt-nickel partial denture clasp will require

A. a heavier cross section for a clasp arm.
B. a shorter retentive arm.
C. more taper.
D. a shallower undercut.

Your patient is currently on warfarin. Before a planned extraction of tooth 3.4, the patient’s coagulation mechanism should be evaluated using which test?

A. Bleeding time.
B. Partial thromboplastin time.
C. Prothrombin time or INR.
D. Von Willebrand’s Factor.
A silane coupling agent is used to

A. control polymerization shrinkage in composite resins.
B. enhance the bond between a porcelain veneer and the resin cement.
C. reduce the surface tension when investing a wax pattern.
D. facilitate the soldering of gold castings.

All of the following are well documented initiating factors of hairy tongue EXCEPT

A. candidiasis.
B. mouth rinses.
C. antibiotics.
D. systemic corticosteroids (Prednisone).
E. radiotherapy to the head and neck.

Appropriate management for the relief of symptoms of primary herpetic gingivostomatitis in an immunocompromised patient may include

1. Diphenhydramine elixir 12.5mg/5ml.
2. Triamcinolone acetonide in Orabase®.
3. Acyclovir capsules 200mg.
4. Dexamethasone elixir 0.5mg/ml.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following is NEVER associated with an impacted tooth?

A. Adeno-ameloblastoma.
B. Odontogenic myxoma.
C. Pindborg's tumor.
D. Primordial cyst.
E. Ameloblastoma.

During endodontic treatment a file separates. The fragment is 3mm long and is lodged tightly in the apical third of the canal. No radiographic changes at the apex are evident. In addition to informing the patient, the most appropriate management is to

A. extract the tooth.
B. perform an apicoectomy and place a retrograde filling.
C. resect the apical section of the root containing the separated instrument.
D. complete the root canal filling and monitor at recall examination.

Which type of periodontitis is generally treated WITHOUT antibiotics?

A. Aggressive periodontitis in a 16 year old patient.
B. Aggressive periodontitis in a 25 year old patient.
C. Refractory chronic periodontitis.
D. Chronic periodontitis.
E. Aggressive periodontitis in a child.

Aging pulps show a relative increase in

A. sensitivity.
B. cell numbers.
C. calcification.
D. vascularity.

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A patient presents with pain from tooth 4.7 which is an abutment for a 4 unit bridge from 4.4 to 4.7. Clinical and radiographic examination reveal tooth 4.7 has extensive distal caries and apical rarefying osteitis. The most appropriate initial management is to

A. prescribe an antibiotic and an analgesic and reappoint the patient.
B. perform endodontic therapy through the 4.7 crown.
C. section the bridge at 4.4, remove 4.7 crown and assess 4.7.
D. remove entire bridge and assess restorability of abutments.

A patient on broad spectrum antibiotics for four weeks presents with widespread, sore, red and white oral mucosal lesions. The most likely diagnosis is

A. candidiasis.
B. leukoplakia.
C. erythema multiforme.
D. erosive lichen planus.
E. pemphigoid.

Immediately following a posterior superior alveolar block injection, the patient's face becomes quickly and visibly swollen. The immediate treatment should be to

A. use pressure followed by cold packs over the swelling.
B. use hot packs over the swelling.
C. refer the patient to a hospital.
D. administer 100mg hydrocortisone intravenously.
E. administer diphenhydramine hydrochloride (Benadryl) 50mg intravenously.

Calculus contributes to periodontal disease through

A. bacterial retention.
B. mechanical irritation.
C. chemical irritation.
D. food retention.

Occipital and/or cervical extra-oral anchorage

1. enhances anterior tooth movement.
2. enhance mandibular forward growth.
3. restricts posterior tooth movement.
4. restricts maxillary forward growth.

Which of the following conditions would NOT require antibiotic premedication before endodontic therapy?

A. Valvular heart disease.
B. Cardiac prosthesis.
C. Persistent odontogenic fistula.
D. Immuno-suppressive therapy.
E. Organ transplant.

Using current radiographic techniques, a satisfactory intraoral radiograph can be produced with skin exposures as low as

A. 1 - 10mR.
B. 100 - 600mR.
C. 1 - 5R.
D. 150 - 1,000R.
Which of the following is NOT a risk factor for primary molar ankylosis?

A. Bruxism.
B. Genetics.
C. Trauma.
D. Missing permanent successor.

Which properties increase the tendency of a drug to cross cell membranes?

A. Non-ionized and high lipid solubility.
B. Non-ionized and low lipid solubility.
C. Ionized and low lipid solubility.
D. Ionized and water solubility.

Overadjustment of a wrought wire denture clasp can lead to fracture because of a/an

A. increase in modulus of elasticity.
B. decrease in ductility due to strain hardening.
C. decrease in the yield strength.
D. increase in fracture toughness.

When sutures are used to reposition tissue over extraction sites, they should be

1. placed over firm bone where possible.
2. interrupted, 15mm apart.
3. firm enough to approximate tissue flaps without blanching.
4. tight enough to produce immediate hemostasis.

When sutures are used to reposition tissue over extraction sites, they should be

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Radiographically, the opening of the incisive canal may be misdiagnosed as a

1. branchial cyst.
2. nasopalatine cyst.
3. nasolabial cyst.
4. periradicular cyst.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The periodontal ligament is constantly remodeled due to the activity of

A. osteoclasts.
B. fibroblasts.
C. macrophages.
D. mesenchymal cells.

Root planing is used in the treatment of pockets which are

1. edematous.
2. fibrotic.
3. below the mucogingival junction.
4. infrabony.

A. (1) (2) (3)
B. (1) (2) (4)
C. (2) and (3)
D. All of the above.

Papillary hyperplasia on the palate of a patient wearing a maxillary complete denture is most likely to be associated with

A. heavy smoking.
B. an allergy to the acrylic resin.
C. an ill-fitting denture and poor oral hygiene.
D. occlusion with posterior natural teeth.
Severe throbbing tooth pain which increases when the patient lies down is a symptom of

A. a pulp polyp.
B. late stage of acute pulpitis.
C. chronic pulpitis.
D. chronic periradicular abscess.
E. pulp hyperemia.

**Preventella intermedia** increases significantly in pregnancy gingivitis because of increased

A. gingival blood vessels with increased inflammation.
B. colonization of shallow pockets.
C. levels of plaque fluid in deep periodontal pockets.
D. steroid hormones act as growth factors.

Premature loss of mandibular primary cuspids in Angle Class I and Class II cases results in increased

1. overjet.
2. arch width.
3. overbite.
4. leeway space.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The location of a crown margin is determined by

1. esthetic requirements.
2. clinical crown length.
3. presence of caries.
4. presence of an existing restoration.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

For a removable partial denture, tripoding a cast is used to

A. determine the path of insertion.
B. locate unfavorable tissue undercuts.
C. locate the height of contour.
D. return the cast to the surveyor.

A patient who uses nitroglycerine has

A. rheumatic heart disease.
B. asthma.
C. coronary artery disease.
D. high blood pressure.
E. cardiac arrhythmia.

A conical pontic replacing a mandibular first molar should be designed so that

A. it seals the mucogingival fold.
B. it has open gingival embrasures.
C. the porcelain to metal junction is on its gingival surface.
D. the gingival surface is concave buccolingually.

For a patient with new complete dentures, errors in centric occlusion are best adjusted by

A. directing the patient to close the jaws, bringing the teeth into occlusion.
B. having the patient close in centric occlusion and making a transfer record to the articulator.
C. having the patient leave the dentures out of the mouth for 24 hours.
D. remounting the dentures in the articulator using remount casts and new interocclusal records.

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What is the best imaging modality to assess the TMJ disc?

A. Arthrography.
B. Computed tomography.
C. Magnetic resonance imaging.
D. Corrected conventional tomography.

A lead diaphragm in X-ray units serves to

A. produce a more homogeneous X-ray beam.
B. prevent secondary radiation.
C. collimate the useful beam of rays.
D. All of the above.
E. None of the above.

To achieve adequate retention when placing a post in a posterior tooth with a normal canal configuration, the post requires a

A. length of 7 to 8 mm.
B. length equal to the restored crown height.
C. parallel sided design.
D. resin luting cement.

Which of the following statements is/are true?

1. Radiographs cannot differentiate between infected and non-infected periapical lesions.
2. A definitive diagnosis of an apical lesion cannot be made on radiography alone.
3. Periapical radiolucencies are not always indicative of loss of pulp vitality.
4. A periapical radiograph can be used to locate the buccal bone level.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Localized gingival recession of a mandibular permanent incisor in an 8 year old can be caused by

A. vitamin C deficiency.
B. ankyloglossia.
C. localized aggressive (juvenile) periodontitis.
D. traumatic occlusion.
E. necrotizing ulcerative gingivitis (NUG).

The most common cause of persistent postoperative sensitivity following the placement of posterior composite resin restorations is

A. hyperocclusion.
B. microleakage.
C. acidic primers.
D. residual caries.

A 15 year old presents with hypoplastic enamel on tooth 1.5. All other teeth are normal. This was most probably caused by a/an

A. vitamin D deficiency.
B. generalized calcium deficiency.
C. high fever encountered by the patient when he had measles at age 3.
D. infection of tooth 5.5 during the development of tooth 1.5.
E. hereditary factor.

A lingual plate is indicated as a major connector for a removable partial denture when

A. insufficient room exists for a lingual bar.
B. a palatal torus is present.
C. a retromylohyoid undercut is present.
D. there is a low frenal attachment.
Which of the following conditions should NOT commonly be treated during the mixed dentition stage?

A. Anterior crossbite.
B. Posterior crossbite.
C. Maxillary incisor rotation.
D. Class II molar relationship.

All of the following are parts of the temporal bone EXCEPT the

A. mastoid.
B. hamulus.
C. tympanic.
D. zygomatic.

For an otherwise healthy patient, with an acute localized periodontal abscess, initial treatment must include

A. scaling and root planing.
B. occlusal adjustment.
C. prescription of an antibiotic.
D. prescription of an analgesic.

The usual site for the development of early childhood caries is the

A. incisal edges of the mandibular incisors.
B. incisal edges of the maxillary incisors.
C. gingival area of the mandibular incisors.
D. gingival area of the maxillary incisors.

What is the most serious complication of an acute periradicular abscess in the maxilla?

A. Pericementitis.
B. Periostitis.
C. Cavernous sinus thrombosis.
D. Spontaneous drainage of pus.

In an Angle Class I occlusion, which cusp of which permanent tooth moves between the mesiolingual and distolingual cusps of the mandibular second molar in a working side movement?

A. Mesiolingual cusp of the maxillary first molar.
B. Distolingual cusp of the maxillary first molar.
C. Mesiolingual cusp of the maxillary second molar.
D. Distolingual cusp of the maxillary second molar.

Which drug should be administered as the initial management for a patient with chest pain consistent with a myocardial infarction?

A. Epinephrine.
B. Atropine.
C. Diphenhydramine.
D. Lidocaine.
E. Acetylsalicylic acid.

Which of the following may be used to disinfect gutta-percha points?

A. Glass bead sterilizer.
B. Autoclave.
C. Chemical solutions.
D. Flame sterilization.
E. Dry heat sterilization.

Overhangs on restorations initiate chronic inflammatory periodontal disease by

A. increasing plaque retention.
B. increasing food retention.
C. causing traumatic occlusion.
D. causing pressure atrophy.
Excessive formation of scar tissue beyond the wound margin is called
A. a fibroma.
B. a keloid.
C. a fibro-epithelial polyp.
D. epithelial hyperplasia.

A clinical finding common to alcoholism, poorly-controlled diabetes mellitus, uremia and liver disease is
A. smooth tongue.
B. increased blood pressure.
C. coated tongue.
D. labial fissures.
E. halitosis.

The pulpal floor of a Class II cavity is cut perpendicular to the long axis of the tooth EXCEPT in the
A. maxillary first premolar.
B. maxillary second premolar.
C. mandibular second premolar.
D. mandibular first premolar.

Tooth reduction for anterior tooth preparation for metal-ceramic and all ceramic crowns is dictated by which of the following factor(s)?
2. Porcelain/ceramic thickness for fracture resistance.
3. Clearance for occlusal function.
4. Parallelism of axial walls for facilitating the path of insertion.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Movement of a mandibular distal extension (Class I) partial denture away from the denture bearing tissues when the patient opens is primarily caused by
A. group function occlusion.
B. non-passive retentive arms.
C. overextended borders.

The most common type of collagen found in the gingival connective tissue, periodontal ligament, and cementum is composed primarily of
A. type I.
B. type II.
C. type III.
D. type IV.
The arrangement and character of the principal fibres of the periodontal ligament are modified by

A. tooth morphology.
B. occlusal function.
C. cementum.
D. alveolar bone.

Orthodontic anchorage is based on

A. Newton’s 1st law.
B. Newton’s 2nd law.
C. Newton’s 3rd law.
D. Wolff’s law.
E. the theory of gravity.

One function of the striated ducts in the parotid and submandibular glands is to

A. add Na+ ions to saliva.
B. help form a hypertonic saliva (relative to serum).
C. add bicarbonate ions to saliva.
D. remove K+ ions from saliva.
E. add salivary amylase to saliva.

The enamel structures most resistant to the action of acids are

A. cuticles.
B. lamellae.
C. rods.
D. interprismatic substances.

For application of porcelain to a ceramo-metal alloy, the correct viscosity is achieved by mixing the porcelain powder with

A. a porcelain modifier.
B. pure methyl alcohol.
C. a mild detergent.
D. distilled water.

A 4 year old child has a normal complement of deciduous teeth, but in appearance they are grayish and exhibit extensive occlusal and incisal wear. Radiographic examination indicates some extensive deposits of secondary dentin in these teeth. This condition is typical of

A. cleidocranial dysplasia.
B. amelogenesis imperfecta.
C. neonatal hypoplasia.
D. dentinogenesis imperfecta.
Which of the following statements are true concerning the adult mandible?

1. The mandibular foramen lies in the centre of the mandibular ramus both in the vertical and horizontal planes.
2. The angle formed by the junction of the ramus and the body of the mandible is an acute one.
3. The genial tubercles are attachments for the anterior bellies of the digastric muscles.
4. The temporalis muscle attaches to the lateral surface of the coronoid process.

A. (1) and (2)  
B. (1) and (4)  
C. (1) and (3)  
D. (1) (3) (4)

Antibiotic prophylaxis is recommended for patients with which of the following?

1. Mitral valve prolapse with regurgitation.  
2. Cardiac pacemaker.  
3. Prosthetic heart valves.  
4. All heart murmurs.

A. (1) (2) (3)  
B. (1) and (3)  
C. (2) and (4)  
D. (4) only  
E. All of the above.

The anatomical landmarks used to help establish the location of the posterior palatal seal of a maxillary complete denture include the

A. pterygomaxillary notches and the fovea palatinae.  
B. pterygomaxillary notches and the posterior nasal spine.  
C. posterior border of the tuberosities and the posterior border of the palatine bone.  
D. anterior border of the tuberosities, the palatine raphe and the posterior border of the palatine bone.

Which of the following conditions would NOT require antibiotic premedication before endodontic therapy?

A. Valvular heart disease.  
B. Cardiac prosthesis.  
C. Persistent odontogenic fistula.  
D. Immunosuppressive therapy.  
E. Organ transplant.
Which of the following impression materials will still result in an accurate cast when poured two weeks after making the impression?

A. Polyether.  
B. Polysulfide.  
C. Addition silicone.  
D. Condensation silicone.

A 5 year old child presents with yellow pigmentation of the deciduous teeth which under ultraviolet light gives a bright yellow fluorescence. This is diagnostic of

A. tetracycline pigmentation.  
B. pigmentation associated with chromogenic bacteria.  
C. amelogenesis imperfecta.  
D. enamel hypoplasia.

What clinical evidence would support a diagnosis of acute dento-alveolar abscess?

1. A negative reaction to the electric vitality tester.  
2. A positive reaction of short duration to cold.  
3. A positive reaction to percussion.  

A. (1) (2) (3)  
B. (1) and (3)  
C. (2) and (4)  
D. (4) only  
E. All of the above.

Which permanent tooth is most likely to have an anomaly?

A. Mandibular first premolar.  
B. Maxillary lateral incisor.  
C. Mandibular central incisor.  
D. Maxillary first molar.

Which of the following statements concerning root canals and their foramina is NOT true?

A. Root canals bifurcate and have dual foramina.  
B. The major foramen is precisely at the apex of the tooth.  
C. The root canals may join and have a single foramen.  
D. The dentino-cemental junction is precisely at the apex of the tooth.  
E. A cross section of the canal in the apical region is relatively round.

An advantage of a metal-ceramic crown over an all ceramic crown is

A. superior esthetics.  
B. more conservative vestibular preparation.  
C. increased restoration strength.  
D. superior translucency.

The best prognosis for new attachment (reattachment) of periodontal ligament is in a

A. narrow infrabony pocket.  
B. narrow suprabony pocket.  
C. wide infrabony pocket.  
D. wide suprabony pocket.

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The principal reason for a cavosurface bevel on a gold inlay preparation is to

A. remove undermined enamel.
B. improve marginal adaptation.
C. decrease marginal percolation.
D. increase resistance and retention forms.

A distal extension removable partial denture is one that receives its support

A. from the tissues only.
B. mostly from the tissues.
C. mostly from the abutment teeth.
D. equally from the abutment teeth and the tissues.

It is difficult to obtain satisfactory anesthesia in the presence of infection near the injection site because

A. the swelling causes increased pressure on the nerves.
B. increased blood supply carries the anesthetic solution away too fast.
C. acidity of the infected tissue inhibits action of the anesthetic agent.
D. alkalinity of the infected tissue inhibits action of the anesthetic agent.

In an infrabony pocket, the epithelial attachment is located

A. within basal bone.
B. coronal to alveolar bone crest.
C. apical to alveolar bone crest.

Intraosseous nutrient canals are most frequently seen on which of the following radiographs?

A. Mandibular posterior periapical.
B. Mandibular anterior periapical.
C. Maxillary posterior periapical.
D. Maxillary anterior periapical.

A protective mechanism of the dental pulp to external irritation or caries is the formation of

A. pulp stones.
B. tertiary dentin.
C. secondary cementum.
D. primary dentin.

Bone laid down by the periosteum is

A. endochondral.
B. cartilaginous.
C. appositional.
D. cancellous.

As the mandible grows downward and forward, bone deposition takes place

A. on all surfaces of the mandible.
B. on the posterior border of the ramus.
C. on the anterior border of the ramus.
D. on the alveolar margins.
E. B. and D.

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Coronary artery occlusion can lead to
A. thrombosis.
B. embolism.
C. infarction.
D. fatty degeneration.

Polymerization shrinkage associated with the setting of composite resins is a result of
A. primary bonds replacing secondary bonds.
B. reaction by-products evaporating from the set material.
C. unreacted monomer evaporating from the set material.
D. temperature changes occurring during the polymerization reaction.

The most likely cause of postoperative sensitivity following the placement of a posterior composite resin restoration with ideal occlusion is
A. excessive etching of enamel margins.
B. inadequate peripheral seal.
C. excessive primer resin.
D. inadequate polymerization of primer resin.

In an acute upper airway obstruction, the entry to the airway on an emergency basis should be made at the
A. cricoid cartilage.
B. thyroid notch.
C. thyroid membrane.
D. cricothyroid membrane.
E. first tracheal ring.

Which of the following is/are (an) indication(s) for the removal of impacted mandibular third molars?
1. Recurrent pericoronitis.
2. Prevention of crowding of mandibular incisors.
4. They are impacted.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following lesions has the WORST prognosis?
A. Basal cell carcinoma.
B. Ameloblastoma.
C. Melanoma.
D. Verrucous carcinoma.

In the restoration of an endodontically treated tooth, increasing the post preparation diameter will most likely increase
A. post stability.
B. cervical resistance.
C. stress to the root.
D. crown retention.

In achieving hemostasis, external cold application produces
A. positive chemotaxis.
B. a transient vasoconstriction.
C. increased vascular permeability.
D. accelerated healing.
The working time of zinc-phosphate cement
A. is shortened if moisture condenses on the mixing slab during the mixing process.
B. is lengthened if the powder is mixed with the liquid as quickly as possible.
C. is shortened if the mixing slab is cooled.
D. None of the above.

The best way to increase the working time of a polyvinylsiloxane is to
A. change the catalyst/base ratio.
B. refrigerate the material.
C. add oleic acid.
D. reduce mixing time.

The principal reason for a cavosurface bevel on an inlay preparation is to
A. remove undermined enamel.
B. improve marginal adaptation.
C. decrease marginal percolation.
D. increase resistance and retention forms.

To evaluate an existing occlusion, diagnostic casts should be mounted on an articulator in
A. centric relation.
B. balancing occlusion.
C. either centric relation or balancing occlusion.
D. horizontal protrusive relation.

The major stimulator of respiration is
A. low blood pressure.
B. high percentage of blood oxygen.
C. low percentage of blood carbon dioxide.
D. high percentage of blood carbon dioxide.

The major stimulator of respiration is
A. low blood pressure.
B. high percentage of blood oxygen.
C. low percentage of blood carbon dioxide.
D. high percentage of blood carbon dioxide.

Local anesthetics
A. do not readily pass the blood-brain barrier.
B. interfere with the propagation of action potentials in nerve fibres.
C. selectively interfere with the propagation of action potentials in nociceptive fibres.
D. do not have an effect on any other tissue than the nervous tissue.

Local anesthetics
A. do not readily pass the blood-brain barrier.
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C. selectively interfere with the propagation of action potentials in nociceptive fibres.
D. do not have an effect on any other tissue than the nervous tissue.

A tooth with a mild pulpitis should be sedated with
A. polycarboxylate cement.
B. composite resin.
C. silicophosphate cement.
D. zinc-oxide-eugenol cement.

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Permanent first molars begin calcification at
A. 1 to 4 months in utero.
B. birth.
C. 3 to 6 months.
D. 7 to 11 months.
E. 12 to 15 months.

Following root canal therapy, the most desirable form of tissue response at the apical foramen is
A. cementum deposition.
B. connective tissue capsule formation.
C. epithelium proliferation from the periodontal ligament.
D. dentin deposition.

A 57 year old man received 10mg of diazepam intravenously. He becomes unresponsive to verbal stimuli, and his respirations are depressed to 10 per minute. Appropriate treatment is to
A. administer ephedrine.
B. observe the patient.
C. force the patient to drink coffee.
D. support respiration with oxygen.

Fluorides are effective in the prevention of dental caries by
A. increasing the resistance of dentin to bacterial penetration.
B. causing tooth enamel to be more resistant to demineralization.
C. providing a more favorable pulpal blood supply.
D. All of the above.

Radiographically, the opening of the incisive canal may be misdiagnosed as a
1. branchial cyst.
2. nasopalatine cyst.
3. nasolabial cyst.
4. periradicular cyst.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A facebow relates the
A. mandibular arch to the glenoid fossa.
B. vertical axis of the maxilla to the mandible.
C. hinge axis to the maxillary arch.
D. maxilla to the mandible at the vertical dimension of occlusion.

Coxibs are more appropriate than standard NSAIDs for patients with a history of
A. renal dysfunction.
B. asthma.
C. gastrointestinal bleeding.
D. cardiac problems.
In normal gingiva, the predominant microflora of gingival plaque are

A. gram-positive cocci.
B. gram-negative cocci.
C. gram-negative facultative and anaerobic rods.
D. spirochetes.

Which of the following results from a necrotic pulp?

A. Dentigerous cyst.
B. Lateral periodontal cyst.
C. Chronic periradicular periodontitis.
D. Pulp polyp.

Using more water when mixing dental stone will result in a cast that exhibits

A. increased expansion and decreased strength.
B. decreased expansion and increased strength.
C. decreased expansion and decreased strength.
D. increased expansion and increased strength.

What is the most appropriate space management for a 4 year old patient who has lost all their primary maxillary incisors due to trauma?

A. No treatment.
B. A removable Hawley appliance.
C. A fixed lingual holding arch.
D. A fixed Nance button appliance.

What is the most appropriate action for a dentist to take for a female patient experiencing spousal abuse?

A. Speak to the alleged abuser to assess the level of threat to the patient.
B. Offer resource materials and referrals to community agencies to the patient.
C. Focus on dental matters and consider the abuse issues in the future.
D. Counsel the patient to leave the abuser.

Tooth 3.3 has a 9mm probing depth with a 6mm three-wall infrabony mesial defect. It tests vital and is not mobile. Which of the following is the most appropriate treatment?

A. Gingival curettage.
B. Modified Widman flap.
C. Osseous resective surgery.
D. Guided tissue regeneration.

If a patient in her first trimester of pregnancy requires the immediate replacement of a large MOD amalgam restoration with extensive recurrent caries and thermal sensitivity, the indicated treatment is to

A. delay treatment until after the baby is born.
B. restore with reinforced zoe.
C. restore with amalgam.
D. restore with a posterior composite resin.

A vertical cross-section of a smooth surface carious lesion in enamel appears as a triangle with the

A. base at the dentino-enamel junction.
B. base facing toward the pulp.
C. apex pointing to the enamel surface.
D. apex pointing to the dentino-enamel junction.

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Doubling the diameter of a round stainless steel orthodontic wire decreases its springiness how many times?

A. 4.
B. 8.
C. 12.
D. 16.

The tooth with the largest root surface area is the

A. maxillary canine.
B. maxillary first molar.
C. mandibular canine.
D. mandibular first molar.

Oral lichen planus has lesions which

A. bleed readily.
B. occur in the debilitated.
C. exhibit a positive Nikolsky's sign.
D. histopathologically show lymphocytic infiltration.

In the mandibular first premolar, the occlusal dovetail of an ideal disto-occlusal amalgam preparation is usually not extended into the mesial fossa because of the

A. small lingual lobe.
B. large buccal cusp.
C. large buccal pulp horn.
D. prominent transverse ridge.

The most likely indication of a poor periodontal prognosis for a furcation involved tooth is the presence of

A. wide root separation.
B. narrow root separation.
C. a bifurcation ridge.
D. an enamel pearl.

At the preparation stage for a 4.6 DO restoration, a brown, non-cavitated lesion is observed on the 4.7 mesial proximal surface. There is no evidence on a bitewing radiograph of a radiolucency extending into the dentin. What is the most appropriate management of the mesial surface of tooth 4.7?

A. Perform no operative treatment and apply fluoride.
B. Prepare the lesion with a ball diamond and restore with a flowable composite resin.
C. Prepare and restore with a mesio-occlusal slot resin modified glass ionomer.
D. Prepare and restore with a mesio-occlusal slot composite resin.

The primary stress bearing area of the maxillary complete denture is the

A. hard palate.
B. alveolar ridge.
C. median palatal raphe.
D. zygoma.

A 52 year old patient presents with restricted or limited mouth opening. The patient has loss of attached gingiva and multiple areas of gingival recession and tight skin. A panoramic radiograph shows diffuse widening of the periodontal ligament. What is the most likely diagnosis?

A. Progressive systemic sclerosis.
B. Hyperparathyroidism.
C. Cicatricial pemphigoid.
D. Erythema multiforme.
E. Advanced adult periodontitis.

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Dislodgement of a maxillary complete denture may be caused by
1. under extension.
2. improper occlusion.
3. overextension.
4. thickness of distobuccal flange.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

When preparing a post space in a figure-8 shaped bicuspid, which of the following is/are appropriate?
1. Une one post in the straightest canal.
2. Achieve post fit on the mesial and distal walls of the straightest canal.
3. Extend core material 2mm apically in the un-posted section of the figure-8.
4. Remove tooth structure to make an oval shaped canal

A. (1) and (3)
B. (2) and (4)
C. (1) (2) (3)
D. (4) only
E. All of the above.

Dental amalgam
A. is subject to solubility and disintegration in the oral fluids.
B. has a satisfactory resistance to compressive stress.
C. adheres chemically to the walls of the cavity.

Calcification of the permanent first molars normally begins at
A. 6 months in utero.
B. birth.
C. 6 months.
D. 12 months.

In determining the ideal proximal outline form for a Class II amalgam cavity preparation in a molar the
1. axial wall should be 1.5mm deep.
2. gingival cavosurface margin must clear contact with the adjacent tooth.
3. proximal walls diverge occlusally.
4. facial and lingual proximal cavosurface margins must just clear contact with the adjacent tooth.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Vestibuloplasty is a preprosthetic surgical procedure used to
A. facilitate reliable impression making.
B. provide adequate posterior inter-arch space.
C. allow placement of teeth over the residual ridge.
D. increase the supporting surface area.

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The tooth preparation for a porcelain veneer must have a
1. coarse diamond finish.
2. space for the veneer material.
3. margin at least 1mm supragingivally.
4. definite gingival finish line.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following could cause clicking sounds during speech in denture wearers?
A. Excessive vertical dimension.
B. Nonbalanced occlusion.
C. Excessive buccal flange thickness.
D. Reduced vertical overlap (overbite).

Which of the following antibiotics may be cross-allergenic with penicillin?
A. Neomycin.
B. Cephalexin.
C. Clindamycin.
D. Erythromycin.
E. Tetracycline.
The usual adult dosage of codeine administered orally is
A. 500-1000mg.
B. 250-500mg.
C. 30-60mg.
D. 2-5mg.

Multiple supernumerary teeth are most commonly found in
A. cherubism.
B. cretinism.
C. hypothyroidism.
D. cleidocranial dysplasia.
E. Down's syndrome.

The predominant type of movement produced by a finger spring on a removable appliance is
A. torque.
B. tipping.
C. rotation.
D. translation.

Osteogenesis imperfecta is manifested by
A. punched-out radiolucencies in the jaws.
B. numerous unerupted supernumerary teeth.
C. osteoporosis and anemia.
D. multiple fractures and blue sclera.

An 8 year old patient with all primary molars still present exhibits a cusp-to-cusp relationship of permanent maxillary and mandibular first molars. The management of this patient should be to
A. plan serial extractions for more normal adjustment of the occlusion.
B. refer the patient to an orthodontist for consultation.
C. place a cervical headgear to reposition maxillary molars.
D. disk the distal surfaces of primary mandibular second molars to allow normal adjustment of permanent molars.
E. observe.

Cements used as cavity liners
A. provide a barrier to the passage of irritants from restorative materials.
B. reduce sensitivity of freshly cut dentin.
C. provide thermal insulation to the pulp.
D. All of the above.

A bitewing radiograph of an early mixed dentition should include the following proximal surfaces.
A. Distal of the primary canine to distal of the permanent first molar.
B. Distal of the primary canine to mesial of the permanent first molar.
C. Mesial of the primary first molar to mesial of the permanent first molar.
D. Mesial of the primary first molar to distal of the permanent first molar.

The cells responsible for antibody production are called
A. polymorphonuclear leukocytes.
B. mast cells.
C. plasma cells.
D. macrophages.
E. megakaryocytes.
Which disorder presents with all permanent teeth exhibiting bulbous crowns, cervical constriction and obliterated pulp canals and chambers?

A. Amelogenesis imperfecta.
B. Dentinogenesis imperfecta.
C. Dentin dysplasia type I.
D. Dentin dysplasia type II.

The depth of penetration of any object by x-rays is determined by

1. milliamperage.
2. density of the object.
3. exposure time.
4. kilovoltage.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Decreasing the amount of network modifiers in a dental porcelain will

A. decrease its fusion temperature.
B. increase its thermal expansion.
C. decrease its chemical reactivity.
D. increase its potential for devitrification upon heating.

Stability in partial dentures is best ensured by

A. use of cast clasps.
B. establishing harmonious occlusion.
C. incorporating all undercut areas available.
D. use of indirect retention.

A clenching habit may be a factor in

A. suprabony periodontal pocket formation.
B. marginal gingivitis.
C. increased tooth mobility.
D. generalized recession.
The roots of primary molars in the absence of their permanent successors

1. sometimes are partially resorbed and become ankylosed.
2. may remain for years with no significant resorption.
3. may remain for years partially resorbed.
4. are always resorbed.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

According to the principles of ethics that are generally accepted in Canada, a dentist may refuse to treat a patient with HIV infection for a specific procedure for the following reason(s).

1. Inadequate experience in the specific procedure.
2. Inadequate knowledge of the specific procedure.
3. Lack of instruments or equipment for this procedure.
4. Infection control procedures that are not designed for infectious patients.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Heat treatment alters a gold alloy's

A. hardness.
B. proportional limit.
C. percentage elongation.
D. All of the above.

A cast post and core is used to

1. provide intraradicular venting.
2. strengthen a weakened tooth.
3. redirect the forces of occlusion.
4. provide retention for a cast crown.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which two muscles are involved in sucking?

A. Caninus and depressor angularis.
B. Risorius and buccinator.
C. Buccinator and orbicularis oris.
D. Levator labii superioris and zygomaticus major.

A dentist must be prudent in deciding how far to follow a patient’s informed choice for suboptimal treatment because

A. the law protects a patient’s right to make poor decisions.
B. a patient’s informed choice must always be honoured.
C. the principle of do-no-harm overrides the patient’s personal choice.
Which of the following is the most appropriate management for a tooth displaying crazing of the enamel?

A. Splinting of teeth.
B. Stainless steel band.
C. Endodontic treatment.
D. Periodic observation.

Tooth 3.6 had endodontic treatment completed 10 years ago. It is asymptomatic but a periapical radiograph reveals a 5mm radiolucency associated with the distal root apex. The surrounding soft tissues are within normal limits. The most likely diagnosis for tooth 3.6 is a/an

A. acute periradicular periodontitis.
B. acute periradicular abscess.
C. chronic periradicular periodontitis.
D. chronic suppurative periradicular periodontitis.

Erythroblastosis fetalis may be a cause of

A. supernumerary incisors.
B. pigmented teeth.
C. peg lateral incisors.
D. Fordyce's granules.
E. blue sclerae.

The inflammatory response in periodontal pathology is caused by bacterial products from plaque which

1. act as chemotactic products.
2. activate the kallikrein system.
3. initiate an immune response.
4. act as enzymes.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Increasing the kVp results in

A. increased long scale image contrast.
B. increased short scale image contrast.
C. decreased long scale image contrast.
D. decreased short scale image contrast.

Which of the following is an indication for a pulpotomy on a primary tooth?

A. Radiographic evidence of internal root resorption.
B. Involvement of interradicular bone with no fistula.
C. Involvement of interradicular bone with a fistula.
D. Signs and symptoms of pulpitis.

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Which one of the following is the most common tumour of the salivary glands?

A. Adenocystic carcinoma.
B. Adenoma.
C. Pleomorphic adenoma.
D. Muco-epidermoid carcinoma.

When comparing opioids with NSAIDS which of the following is correct?

A. Opioids impair gastric motility to a greater extent.
B. NSAIDS cause more nausea.
C. Opioids predispose to more bleeding.
D. NSAIDS cause more drowsiness.

When root canals are treated topically with antibiotics rather than with disinfectants

1. a greater success rate results.
2. the same rules of mechanical preparation and filling must be observed.
3. treatment may be completed in fewer appointments.
4. there is greater assurance that all microorganisms are destroyed.
5. there is a danger of sensitizing patients to antibiotics.

A. (1) (3) (4)
B. (2) (4) (5)
C. (1) (2) (3)
D. (2) and (5)
E. All of the above.

A clinical diagnostic indication of palatal impaction of maxillary permanent canines does NOT include

A. proclined and laterally flared permanent lateral incisors.
B. delayed exfoliation of primary canines.
C. midline central diastema.
D. lack of canine buccal bulges in a 10 year old patient.

An alcoholic patient with bleeding tendencies may require injection of which vitamin prior to an extraction?

A. Vitamin B₁₂.
B. Vitamin C.
C. Vitamin D.
D. Vitamin K.

In a removable partial denture, the major connector should begin 3-6mm from the free gingival margin in order to

A. improve phonetics.
B. allow sufficient length for the minor connectors.
C. prevent inflammation of the gingival tissues.
D. prevent rotation of the major connector in an antero-posterior direction.

Which of the following changes in colour, contour and texture are indicative of chronic marginal gingivitis?

A. Red, swollen, increased stippling.
B. Cyanotic, cleft formation, lack of stippling.
C. Red, swollen, lack of stippling.
D. Pink, swollen, lack of stippling.

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Which of the following increases the risk for bronchospasm in asthmatic patients?

A. Prednisone.
B. Ibuprofen.
C. Lidocaine.
D. Nitrous oxide.
E. Oxycodone.

The intercanine width in the mandible increases until the full eruption of the permanent

A. lateral incisors.
B. canines.
C. second molars.
D. third molars.

The best space maintainer to prevent the lingual collapse that often occurs following the early loss of a mandibular primary canine is a

A. Nance expansion arch.
B. lingual arch.
C. band and loop space maintainer.
D. distal shoe space maintainer.

Rests on terminal abutment teeth for a cast metal removable partial denture provides

A. primary retention.
B. indirect retention.
C. vertical stability.
D. lateral force transmission.

The etiology of an open bite malocclusion of dental origin is most often the result of

1. increased eruption of the anterior teeth.
2. decreased eruption of the anterior teeth.
3. decreased eruption of the posterior teeth.
4. increased eruption of the posterior teeth.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

After setting, alginate impressions

A. absorb water.
B. remain dimensionally stable for 12 hours.
C. have higher tear strength than polyvinylsiloxane impressions.
D. can be poured twice with little effect on accuracy of the resulting cast.

A maxillary posterior buccal crossbite in the deciduous dentition will most likely

A. be present when the permanent teeth erupt.
B. correct itself when the permanent teeth erupt.
C. be self-correcting with the discontinuance of an associated habit.
D. be associated with inadequate arch length.

In comparison to visible light, X-rays

A. have a longer wave length.
B. have higher energy.
C. travel faster.
D. can be focused.
A 10 year old presents with diffuse bilateral white areas on the buccal mucosa, dorsum of the tongue and the floor of the mouth. The mother tells the dentist that she has noticed this appearance for at least 3 years, but she was not concerned since she has had a similar condition all of her life. The most likely diagnosis is

A. leukoplakia.
B. white sponge nevus.
C. frictional keratosis.
D. allergic reaction to cinnamon.

The micro-organisms of dental caries are

1. Streptococcus mutans.
2. Staphylococcus aureus.
3. Lactobacillus acidophilus.
4. β-hemolytic streptococci.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following drugs is(are) used to suppress pain?

1. Benzodiazepines.
2. Barbiturates.
3. Narcotic analgesics.

A. (1) only.
B. (2) only.
C. (3) only.
D. (1) and (3)
E. (2) and (3)

A large carious exposure occurs on a permanent first molar of a 7 year old. There is no periapical involvement and the tooth is vital. The treatment should be to

A. cap the exposure with calcium hydroxide and place zinc-oxide and eugenol.
B. perform a pulpotomy and place calcium hydroxide.
C. perform a pulpectomy.
D. extract the tooth and place a space maintainer.

The principal advantage of polyether impression materials over polysulfide polymer impression materials is

A. longer shelf life.
B. superior accuracy.
C. superior surface on the cast.
D. less dimensional change with time.

The Root Caries Index may underestimate the amount of disease because

A. the number of surfaces at risk cannot be determined.
B. it excludes subgingival lesions.
C. root caries is difficult to diagnose.
D. it treats filled and decayed surfaces as the same.

The lamina dura is a/an

A. regular radiolucent line around the roots.
B. regular radiopaque line around the roots.
C. irregular radiolucent line around the roots.

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In cephalometry, the most stable point in a growing skull is the
A. sella turcica.
B. nasion.
C. Broadbent's point.
D. Bolton point.

The most common etiology of an Angle’s Class I malocclusion is
A. unusual dental arch development.
B. tooth size - arch size discrepancy.
C. congenitally missing teeth.
D. extra teeth.

Trauma from occlusion may be diagnosed radiographically by the presence of
A. cemental tears.
B. horizontal bone loss.
C. widening of the periodontal ligament space.
D. narrowing of the periodontal ligament space.

The correlation between malocclusion and temporomandibular dysfunction is
A. weak.
B. moderate.
C. strong.
D. definitive.

Which of the following clinical conditions is the most serious?
A. Acute periradicular abscess of a mandibular central incisor.
B. Mid facial cellulitis.
C. Chronic periradicular abscess of a mandibular third molar.
D. Infected dentigerous cyst.

Tooth 3.6 has a disto-occlusal amalgam restoration with a gingival overhang. There is radiographic evidence of bone loss and deep probing depths with bleeding upon probing. Which of the following types of microorganisms are most likely associated with the subgingival environment in this site?
A. Gram-positive and aerobic.
B. Gram-positive and anaerobic.
C. Gram-negative and aerobic.
D. Gram-negative and anaerobic.

Proximal retention grooves are most necessary to provide resistance for proximal-occlusal silver amalgam restorations when the
A. occlusal extension is wide faciolingually relative to the proximal extension.
B. restoration is a pin-retained cusp replacement.
C. occlusal extension is narrow faciolingually relative to the proximal extension.
D. bonded amalgam technique is not being used.

Which of the following conditions is the most likely cause of a maxillary midline diastema?
A. Mesiodens.
B. Space shortage.
C. Gemination.
D. Dens invaginatus.

Odontoblast gap junctions
A. adhere the cells to one another.
B. attach the cells to the basement membrane.
C. seal off the dentin from the pulp.
D. permit lateral cell-cell communication.

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In order to achieve a proper interproximal contact when using a spherical alloy, which of the following is/are essential?

1. A larger sized condenser.
2. A thinner matrix band.
3. An anatomical wedge.
4. Use of mechanical condensation.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A 47 year old female patient complains of a “burning sensation” of the tongue. Examination reveals angular cheilitis and a smooth redness on the entire dorsal surface of the tongue. The most likely diagnosis is

A. anemia.
B. epithelial dysplasia.
C. squamous cell carcinoma.
D. primary herpes.
E. median rhomboid glossitis.

Osteomyelitis of the mandible may follow

1. radiotherapy.
2. dentoalveolar abscess.
3. fracture.
4. Vincent’s angina.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

What should be the immediate management of an acute anginal episode?

A. Oral ibuprofen.
B. Sublingual nitroglycerin.
C. Subcutaneous epinephrine.
D. Inhaled salbutamol.

The most common site for breast carcinoma to metastasize to the maxillofacial regions is

A. anterior maxilla.
B. anterior mandible.
C. posterior maxilla.
D. posterior mandible.
E. hard palate.

Which of the following is the most potent analgesic?

A. Acetylsalicylic acid 650 mg.
B. Ibuprofen 400 mg.
C. Acetaminophen 300 mg with codeine 30 mg.
D. Codeine 60 mg.

Failure of bone resorption over an erupting tooth is due to lack of

A. fibroblasts.
B. osteocytes.
C. osteoclasts.
D. neutrophils.

An unerupted supernumerary tooth between the permanent maxillary central incisors is commonly associated with which of the following clinical observations?

A. Dental diastema.
B. Hypertrophied labial frenum.
C. Delayed exfoliation of primary maxillary lateral incisors.
D. Absence of permanent maxillary lateral incisors.

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Which of the following should be performed to confirm a diagnosis of pseudomembranous candidiasis?

A. An incisional biopsy.
B. A cytological smear.
C. An excisional biopsy.
D. A complete blood count.

While the teeth are set in wax, dentures are tried in to

A. verify the maxillomandibular records.
B. verify the vertical dimension of occlusion.
C. evaluate esthetics.
D. All of the above.

The efficacy of pit and fissure sealants is affected by

A. occlusal relationship.
B. opacity of the sealant.
C. stage of tooth eruption.
D. type of polymerization reaction.
E. systemic fluoride treatment.

A line angle NOT present on a Class I cavity preparation on tooth 1.5 is

A. mesiopulpal.
B. buccopulpal.
C. linguopulpal.
D. axiopulpal.
E. None of the above.

A 4 year old child presents for an emergency examination. The mother is concerned about white patches on the child’s tongue. The child has no pain, eats and drinks normally and has a history of repeated use of amoxicillin for otitis media. What is the most likely diagnosis?

A. Primary herpetic gingivostomatitis.
B. Geographic tongue.
C. Candidiasis.
D. Hairy tongue.

The chief mechanism by which the body metabolizes short-acting barbiturates is

A. oxidation.
B. reduction.
C. hydroxylation and oxidation.
D. sequestration in the body fats.

Unilateral numbness of the chin is associated with

A. malignancy.
B. Bell's palsy.
C. periapical abscess.
D. trigeminal neuralgia.

The local anesthetic technique requiring the needle to contact the neck of the condyle is the

A. posterior superior alveolar nerve block.
B. Gow-Gates block.
C. Vazirani-Akinosi block.
D. inferior alveolar nerve block.
Frankfort plane extends from
1. Porion to Orbitale.
2. Porion to Gnathion.
3. Condylion to Gnathion.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Signs and symptoms of occlusal traumatism are
1. pain.
2. tooth mobility.
3. radiographic evidence of increased periodontal ligament space.
4. loss of pulp vitality.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A 12 year old patient with a complete dentition has enamel hypoplasia of tooth 1.4. This condition was most likely caused by
A. low calcium intake.
B. high fluoride intake.
C. an abscessed tooth 5.4.
D. systemic tetracycline.
E. a febrile illness.

For a removable partial denture, a metal base is preferred to an acrylic base because metal is
1. more hygienic.
2. stronger.
3. less irritating.
4. a better thermal conductor.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The principles of closed fracture management are
1. incision at fracture site.
2. reduction of fracture.
3. debridement of fracture site.
4. immobilization of fracture.
5. restoration of occlusion.

A. (1) (2) (5)
B. (2) (3) (4)
C. (1) (3) (4)
D. (2) (4) (5)
E. (2) (3) (5)

The dentino-enamel junction is the most sensitive portion of a tooth because
A. free nerve endings terminate on odontoblasts at this region.
B. odontoblastic processes branch considerably at this region.
C. ameloblasts make synaptic connections with odontoblasts at this junction.
D. odontoblastic tubules help convey hydrostatic forces to the pulp cells.

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In facial injury management, the most important first aid measure is to
A. control the bleeding.
B. prevent shock.
C. establish and maintain an airway.
D. control infection.

Exophthalmia may be a sign of
A. hypoadrenalism.
B. hyperadrenalism.
C. hypothyroidism.
D. hyperthyroidism.
E. hypoparathyroidism.

Maximum shrinkage after gingival curettage can be expected from tissue that is
A. fibroedematous.
B. edematous.
C. fibrotic.
D. formed within an infrabony pocket.
E. associated with exudate formation.

The failure of a commercially pure titanium dental implant to osseointegrate can potentially be attributed to each of the following EXCEPT
A. type III/IV bone at the implant site.
B. titanium oxide formation on the implant surface.
C. habitual smoking.
D. uncontrolled diabetes.

Which of the following is the principal muscle of the floor of the mouth?
A. Stylohyoid.
B. Digastric.
C. Geniohyoid.
D. Mylohyoid.
E. Platysma.

An 80 year old man develops multiple painful skin vesicles along the distribution of the right infraorbital nerve. This is suggestive of
A. psoriasis.
B. herpes zoster.
C. pemphigus vulgaris.
D. candidiasis (candidosis).

Exophthalmia may be a sign of
A. hypoadrenalism.
B. hyperadrenalism.
C. hypothyroidism.
D. hyperthyroidism.
E. hypoparathyroidism.

Untreated diabetes mellitus characteristically demonstrates
A. hypoglycemia.
B. hyperglycemia.
C. hypophagia.
D. hyperlipidemia.
E. dysuria.

When a radiographic examination is warranted for a 10 year old child, the most effective way to decrease radiation exposure is to
A. use a thyroid collar and lead apron.
B. apply a radiation protection badge.
C. use high speed film.
D. decrease the kilovoltage to 50kVp.
E. take a panoramic film only.

The organisms associated with a carious pulpitis are
A. streptococci.
B. staphylococci.
C. spirochetes.
D. viruses.

Which pontic type is best for a knife edge residual ridge where esthetics is not a major concern?
A. Sanitary.
B. Conical.
C. Ridge lap.
D. Modified ridge lap.

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A 22 year old patient, who is otherwise healthy, has severe pain and discomfort in the mouth. Clinical findings are gingival ulceration in the anterior region of both arches, gingiva covered by a yellow-grey slough, ulcerated papillae, gingival bleeding upon slight provocation, a fetid odor but no radiographic evidence of bone loss. What is the most probable diagnosis?

A. Localized aggressive periodontitis.
B. Localized aggressive gingivitis.
C. Necrotizing ulcerative periodontitis.
D. Necrotizing ulcerative gingivitis.

Treatment of primary herpectic gingivostomatitis should include

A. topical steroids.
B. application of dilute hydrogen peroxide.
C. cauterization.
D. control of secondary infection.

Improper temporary coverage of bridge abutments can cause

A. increased tooth sensitivity.
B. gingival recession.
C. tooth migration.
D. occlusal prematurities.
E. All of the above.

The normal gingiva of the child patient is diagnosed on the basis of

1. contour.
2. stippling.
3. sulcus depth.
4. tight fitting gingival collar.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Dental amalgams that are made from alloys containing 6% copper, compared to those made from alloys containing 13% copper:

1. are more resistant to tarnish and corrosion.
2. demonstrate less creep or flow.
3. demonstrate less marginal breakdown in clinical service.
4. generally have lower compressive strength.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The prime advantage of vacuum firing of porcelain is

A. better colour.
B. less shrinkage.
C. more translucency.
D. increased strength.

A primary molar, in the absence of its permanent successor,

A. should be treated endodontically to prevent root resorption.
B. may remain for years with no significant resorption.
C. will undergo normal root resorption.
D. should be extracted.
E. is more susceptible to dental caries.

The most likely cause of tooth loss following a tunneling procedure to provide complete access for a mandibular Class III furcation involvement is

A. root caries.
B. root sensitivity.
C. pulpal involvement.
D. recurrent pocketing.

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A Bolton relationship has determined a

- maxillary “12” excess of 3.5mm
- maxillary “6” excess of 3.0mm

What effect(s) could this Bolton relationship have on an Angle Class I malocclusion?

1. Deeper overbite.
2. Maxillary crowding.
3. Increased overjet.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Sodium salicylate is administered to a patient with rheumatoid arthritis because it is

A. an anti-inflammatory agent.
B. a sedative.
C. an antiseptic.
D. None of the above.

A 67 year old patient with xerostomia presents with root caries. The most appropriate material to restore these lesions is

A. flowable composite resin.
B. hybrid composite resin.
C. silver amalgam.
D. glass ionomer cement.

The most common form of periodontal disease is

A. gingivitis.
B. chronic periodontitis.
C. gingival hyperplasia.
D. aggressive periodontitis.

Histopathologic alterations associated with the pathogenesis of periodontal disease include

1. inflammatory exudate that can involve neutrophils, lymphocytes and plasma cells.
2. proliferative and degenerative changes of the junctional epithelium.
3. collagen destruction subjacent to the junctional epithelium.
4. deepening of the gingival sulcus.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following has analgesic, antipyretic and anti-inflammatory effects?

A. Acetaminophen.
B. Acetylsalicylic acid.
C. Bradykinin.
D. Diazepam.
Before performing surgery on a patient who is taking warfarin, which of the following should be evaluated?

A. Bleeding time.  
B. Clotting time.  
C. Prothrombin time.  
D. Coagulation time.

Which is a characteristic of a patient with myxedema?

A. Exophthalmos.  
B. Weight loss.  
C. Heat intolerance.  
D. Lethargic appearance.  
E. Tachycardia.

A single hypoplastic defect located on the labial surface of a maxillary central incisor is most likely due to a/an

A. dietary deficiency.  
B. endocrine deficiency.  
C. tetracycline therapy.  
D. trauma to the maxillary primary central incisor.  
E. high fluoride intake.

Which of the following does NOT affect probing depth measurement?

A. Probing force.  
B. Diameter of the probe tip.  
C. Angulation of the probe.  
D. Subgingival calculus.  
E. Position of the mucogingival junction.

The severity of an Angle’s Class II malocclusion may be reduced by

1. maintaining the integrity of the primary dentition.  
2. preventing thumbsucking and lip biting habits.  
3. correcting mouth breathing as early as possible.  
4. the strategic removal of primary teeth.

Orthodontic tooth movement is most efficient

A. when the PDL has areas of calcification.  
B. when the root is within cortical bone.  
C. when the root is within alveolar bone.  
D. in brachycephalic patients with strong muscular patterns.

The most objective measurement of successful scaling and root planing is

1. reduction of pocket depth.  
2. root smoothness.  
3. absence of plaque.  
4. absence of bleeding upon probing.  
5. increased sulcular fluid flow.

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When tumour cells revert to a more primitive, embryonic or undifferentiated form with an increased capacity for reproduction and a decreased function, this is called

A. anaplasia.  
B. metaplasia.  
C. hypoplasia.  
D. hyperplasia.  

The most likely diagnosis for a child with a painful, fiery-red, diffuse gingivitis is

A. primary herpetic gingivostomatitis.  
B. aggressive periodontitis.  
C. idiopathic fibromatosis.  
D. aphthous stomatitis.  

Which of the following malocclusions should be corrected as soon as it is diagnosed?

A. A severe Class II, Division 1.  
B. A severe Class II, Division 2.  
C. A cross-bite with a lateral functional shift.  
D. A diastema between the maxillary central incisors.  

Composite resin is CONTRAINDICATED as a posterior restorative material in cases of

1. cusp replacement.  
2. bruxism.  
3. lack of enamel at the gingival cavo-surface margin.  
4. inability to maintain a dry operating field.  

A. (1) (2) (3)  
B. (1) and (3)  
C. (2) and (4)  
D. (4) only  
E. All of the above.

Which of the following would you prescribe for an anxious dental patient with a peptic ulcer?

A. Reserpine.  
B. Scopolamine.  
C. Silica gel.  
D. Diazepam.  
E. Calcium carbonate.

Which of the following is/are (a) useful guide(s) in determining a patient’s occlusal vertical dimension?

1. Appearance.  
2. Phonetics.  
3. Observation of the rest position.  
4. Pre-extraction profile records.  

A. (1) (2) (3)  
B. (1) and (3)  
C. (2) and (4)  
D. (4) only.  
E. All of the above.

Radiographically, an osteoma appears

A. radiopaque.  
B. radiolucent.  
C. either radiopaque or radiolucent.  
D. radiolucent, surrounded by a radiopaque line.

Which of the following conditions is managed by the administration of bisphosphonates?

A. Osteoarthritis.  
B. Osteopetrosis.  
C. Osteoporosis.  
D. Osteomyelitis.

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Which of the following teeth are most often lost as a result of periodontitis?

A. Mandibular molars.
B. Maxillary molars.
C. Mandibular incisors.
D. Maxillary incisors.

Which of the following has the POOREST prognosis?

A. Horizontal fracture in the apical one-third of the root.
B. Horizontal fracture in the mid-root.
C. Horizontal fracture 1-2mm subgingivally.
D. Vertical root fracture.

Enamel spindles are

A. aberrant dentinal tubules that cross the dentinoenamel junction.
B. structural faults that span the entire thickness of the enamel.
C. responsible for the incremental lines in enamel.
D. seen as perikymata on the surface of newly erupted teeth.

Polyether impression materials should be used with caution for full arch impressions of dentate patients because they

A. exhibit viscoelasticity.
B. exhibit a high elastic modulus.
C. are thixotropic.
D. are hydrophilic.
E. are exothermic.

Following very early loss of a primary tooth, the eruption of the permanent successor could be

1. unaltered.
2. accelerated.
3. delayed.
4. arrested.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following statements applies to the submandibular lymph nodes?

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only.
E. All of the above.

The following are possible effects of acetylsalicylic acid EXCEPT

A. reduction of fever.
B. shortening of bleeding time.
C. suppression of inflammatory response.
D. bleeding from the gastrointestinal tract.
Which of the following is/are clinical signs of gingivitis?

1. Loss of stippling.
2. Gingival hyperplasia.
3. Decreased pocket depth.
4. Bleeding on probing.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

In patients with advanced periodontitis, mobile teeth should be splinted in order to

A. reduce gingival inflammation.
B. accelerate epithelialization after periodontal surgery.
C. enhance formation of a new connective tissue attachment after surgery.
D. None of the above.

Local anesthetic containing epinephrine is CONTRAINDICATED for a patient with

A. Addison’s disease.
B. congenital methemoglobinemia.
C. diabetes mellitus.
D. pseudocholinesterase deficiency.
E. sulfite sensitivity.

Which of the following anesthetic agents is/are metabolized by plasma cholinesterase?

1. Prilocaine.
2. Lidocaine.
4. Procaine.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

In radiography, a parallel technique or right angle technique as opposed to a bisecting angle technique will result in

1. less gonadal radiation.
2. greater entrance dosage.
3. less dimensional distortion.
4. a more heterogenous beam of X-rays.

A. (1) (2) (4)
B. (2) and (3)
C. (2) and (4)
D. (1) and (3)
E. All of the above.

The primary use of nitrous oxide and oxygen in dentistry today is as a(n)

A. substitute agent for local anesthesia.
B. general anesthetic agent.
C. agent for conscious sedation.
D. agent for the management of chronic obstructive pulmonary disease.

In the processing of methyl methacrylate, denture porosity is most likely to appear in the

A. thickest portion.
B. thinnest portion.
C. buccal surface.
D. palatal area.

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The physical properties of alginate impression materials will be adversely affected by

A. "tumbling" the alginate container prior to filling the dispensing scoop.
B. adding powder to the water in the mixing bowl.
C. using room temperature water.
D. mixing beyond the recommended time.

Between the ages of 5 and 18 years, mandibular arch length

A. increases 0-1mm.
B. increases 3-4mm.
C. decreases 0-1mm.
D. decreases 3-4mm.

An ankylosed deciduous molar can cause

A. delayed eruption of the succeeding premolar.
B. alteration of arch length.
C. difficulty with extraction.
D. All of the above.

Tissue from a multilocular radiolucent area of the posterior mandible shows microscopically follicular areas lined with cylindrical cells resembling the enamel organ. The most likely diagnosis is a/an

A. neurofibroma.
B. ameloblastoma.
C. central fibroma.
D. periodontal cyst.
E. dentigerous cyst.

Which of the following combinations of milliamperage and kilovoltage will give X-radiation with the maximum penetration?

A. 10kVp - 65ma.
B. 85kVp - 5ma.
C. 90kVp - 10ma.
D. 65kVp - 15ma.
E. 75kVp - 40ma.

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Gingival hyperplasia may occur in patients taking
1. cyclosporine.
2. nifedipine.
3. phenytoin.
4. carbamazepine.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following is/are a risk of orthodontic treatment?
1. Discomfort.
2. Decalcification.
3. Root resorption.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following would be considered normal blood pressure for a healthy 75 year old?
A. 175/95 mmHg.
B. 135/86 mmHg.
C. 130/100 mmHg.
D. 185/94 mmHg.

A patient complains of fatigue, abdominal pain and lack of appetite. The clinical examination shows that the sclera of the eyes are yellow. There is also a yellowish diffuse discoloration of the oral mucosa. What is the most likely diagnosis?
A. Viral hepatitis.
B. Iron deficiency anemia.
C. Hypercarotenemia.
D. Thrombocytopenic purpura.

In a peripheral nerve such as the trigeminal, unmyelinated C type fibres convey
A. muscle spindle information.
B. reflexes such as the jaw jerk reflex.
C. nociceptive pain information.
D. reflexes such as the jaw opening reflex.

A full coverage all-ceramic anterior crown requires
A. a sloping shoulder (long bevel) margin.
B. a minimum margin depth of 0.5mm lingually.
C. rounded internal line angles.
D. a minimum incisal reduction of 1.0mm.

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The most frequent cause of death occurring under general anesthesia is

A. overdosage of anesthetic agent.
B. cardiac arrest.
C. traction on the viscera.
D. mismanagement of the airway.
E. over premedication.

A 25 year old female in her first trimester of pregnancy presents with an acute dental infection. Which of the following is CONTRAINDIATED for this patient?

A. Take a radiograph.
B. Prescription of penicillin V.
C. Administration of 2% xylocaine with 1:100,000 epinephrine.
D. Acetylsalicylic acid for pain control.

An ameloblastoma can develop from the epithelial lining of which of the following cysts?

A. Periradicular.
B. Dentigerous.
C. Residual.
D. Lateral periodontal.

A chronic alcohol abuser has just been diagnosed with Wernicke-Korsakoff’s syndrome. He complains of pain and burning mouth and presents with angular cheilitis and glossitis. He is suffering from a severe deficiency of

A. vitamin A.
B. ascorbic acid.
C. vitamin K.
D. thiamin.

A linguual approach for a conservative Class III preparation for a composite resin requires

A. a retentive internal form.
B. parallelism of the incisal and gingival walls.
C. maintenance of the incisal contact area.
D. All of the above.

The microscopic appearance of the central giant cell granuloma of the jaws is similar to that of lesions which occur in

A. hyperparathyroidism.
B. Paget’s disease.
C. cleidocranial dysplasia.
D. hyperpituitarism.

In the initiation of dental caries, lactobacilli are

A. capable of surviving without nutrients.
B. abundant in calculus.
C. both acidogenic and aciduric.
D. the only acid-forming bacteria in the mouth.

Inclusion bodies in the nucleus or cytoplasm of cells are diagnostic of

A. rickettsia.
B. parasitic infestations.
C. bacterial diseases.
D. viral diseases.

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The periodontal condition showing localized advanced vertical bone loss involving the first molars and the incisors is diagnosed as

A. desquamative gingivitis.
B. juvenile periodontitis.
C. advanced destructive chronic periodontitis.
D. acute periodontitis.

In composite resin restorations, glass ionomer cements can be used as a base because they are

A. sedative to a hyperemic pulp.
B. neutral in colour.
C. biocompatible.
D. compatible with the expansion of composite resins.

Forces for orthodontic tooth movement ideally should be

1. intermittent.
2. continuous.
3. heavy.
4. light.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The surgical risk for a patient with organic heart disease depends upon

A. cardiac reserve.
B. blood pressure.
C. respiration.
D. pulse rate.
E. cardiac output.

Which of the following lesions of the oral or maxillofacial region is premalignant?

A. Ectodermal dysplasia.
B. Focal fibrous hyperplasia.
C. Smoker’s melanosis.
D. Fibrous dysplasia.
E. Epithelial dysplasia.

A 24 year old patient complains of abdominal pain, frequent diarrhea and weight loss. The oral clinical examination shows linear mucosal ulcers with hyperplastic margins in the buccal vestibule. What is the most likely diagnosis?

A. Crohn’s disease.
B. Leukemia.
C. AIDS.
D. Diabetes mellitus.

Most of the somatosensory information from the oral cavity reaches the brain through which nerve?

A. Trochlear.
B. Hypoglossal.
C. Trigeminal.
D. Glossopharyngeal.

An endomorph is typically

A. short and fat.
B. tall and thin.
C. an early maturer.
D. a late maturer.

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Postoperative sensitivity associated with the placement of direct posterior composite resin restorations is most often the result of

A. polymerization shrinkage.
B. large particle size of macrofilled composite resins.
C. inadequate etching of the dentin.
D. excessive thickness of a glass ionomer base.

Which of the following is NOT a risk factor for periodontitis?

A. Smoking.
B. Poorly controlled diabetes.
C. Coronary heart disease.
D. Poor oral hygiene.

A 50 year old edentulous patient is complaining that spicy foods are no longer enjoyable since he received his new complete upper and lower dentures. The most likely reason for this occurrence is that the

A. dentures cover his taste buds.
B. free nerve endings are now covered by the dentures.
C. dentures are obstructing air flow to the olfactory epithelium.

The yield strength of an orthodontic wire is

A. the same as the proportional limit.
B. decreased by work hardening.
C. the same as the stress at fracture.
D. higher than the proportional limit.

A healthy 40 year old female patient complains of periodic acute, excruciating pain in the right infraorbital region. The pain is of short duration and can be elicited by lightly touching the skin of the area. Which of the following drugs is the most appropriate management?

A. Carbamazepine.
B. Acetazolamide.
C. Succinylcholine.
D. Penicillin.
Recurrent caries

A. is caused by microleakage at the restoration-tooth interface.
B. is initiated primarily on the tooth surface beyond the restoration.
C. is caused by voids within the restoration entirely.
D. occurs in the pits of tooth structure.

The tooth preparation for a porcelain veneer must have a

1. rough surface.
2. space for the veneer material.
3. definite finish line.
4. margin at least 1mm supragingivally.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following is/are associated with an unerupted tooth?

1. Odontogenic adenomatoid tumor.
2. Periapical cemento-osseous dysplasia.
3. Calcifying epithelial odontogenic tumor.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Radiographs of a periodontally related osseous defect show the

A. number of bony walls.
B. measurement of the defect.
C. location of the epithelial attachment.
D. loss of crestal cortication.

Compared to nonsmokers, cigarette smokers are more likely to have

A. less bone loss.
B. less gingival recession.
C. more bleeding on probing.
D. more attachment loss.

A pontic replacing a mandibular first molar should be designed so that it/its

1. gingival surface is concave and adapts closely to the ridge.
2. has open gingival embrasures.
3. conceals the porcelain to metal junction on its gingival surface.
4. gingival surface is convex in all directions.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Excessive orthodontic force used to move a tooth may

1. cause hyalinization.
2. cause root resorption.
3. crush the periodontal ligament.
4. impair tooth movement.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

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The radiographic appearance of internal resorption is

A. radiolucent enlargement of the pulp cavity.
B. radiolucency around the apex of the root.
C. radiolucency on the surfaces of the root.
D. localized radiopacities in the pulp cavity.
E. radiopacity around the apex of the root.

When compared to parallel-sided posts, tapered posts

1. require less dentine removal.
2. exert a wedge effect on the remaining dentine.
3. are more consistent with root anatomy.
4. provide better retention.

A. (1) and (3)
B. (2) and (4)
C. (1) (2) (3)
D. (4) only
E. All of the above.

After placement of the rubber dam you notice that the interdental papilla is protruding from beneath the rubber dam. The reason for this is that

A. a rubber dam frame was used.
B. the holes were placed too far apart.
C. a light weight dam was used.
D. the holes were placed too close together.
E. the teeth were not individually ligated.

The reason for this is that

A. Inorganic ion that is implicated in primary hypertension is

A. sodium.
B. fluoride.
C. potassium.
D. magnesium.

Which of the following tumors has the best prognosis?

A. Osteosarcoma.
B. Melanoma.
C. Ameloblastoma.
D. Adenocarcinoma.

Which of the following is NOT a feature of aggressive periodontitis?

A. Localized and generalized forms.
B. Familial aggregation.
C. Necrotic tissue.
D. Presence of Actinobacillus actinomycetemcomitans.

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Which of the following impression materials is NOT recommended for making a final impression for fabrication of dies for a porcelain fused to metal crown?

A. Addition silicone.
B. Condensation silicone.
C. Irreversible hydrocolloid.
D. Polyether.

The retentive arm of a combination clasp (wrought wire retentive arm and cast lingual arm) is better than a cast arm because it

A. has a lower yield strength.
B. produces less stress on the abutment tooth during removal and insertion.
C. can be used to engage deeper undercuts due to a high modulus of elasticity.
D. is economical to fabricate.

Administration of succinylcholine to a patient deficient in serum cholinesterase would most likely result in

A. convulsions.
B. hypertension.
C. prolonged apnea.
D. acute asthmatic attack.

Which tooth has the best prognosis in a patient with generalized periodontal disease?

A. 1.1.
B. 1.3.
C. 1.4.
D. 1.6.

Which of the following statements regarding geriatric patients is correct?

A. Drugs that primarily depend on pulmonary excretion for elimination should be prescribed in smaller doses or at greater time intervals.
B. Multiple drug ingestion is less likely to result in toxicity due to inhibition of biotransformation.
C. Multiple drug use predisposes the elderly to multiple side effects that may impact on their oral health.

A Class III malocclusion is normally associated with

A. sleeping habits.
B. growth discrepancy.
C. tooth size - jaw size discrepancy.
D. trauma.

Which of the following best describes a traumatic neuroma?

A. A slow-growing, painless neoplasm.
B. A slow-growing, hyper sensitive nodule.
C. A tumour at a recent extraction site.
D. A tumour of the tongue.

Which of the following is most often associated with a nonvital tooth?

A. Chronic periradicular periodontitis.
B. Internal resorption.
C. Periapical cemento-osseous dysplasia.
D. Hyperplastic pulpitis.

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What is the primary etiologic factor for generalized aggressive periodontitis?

A. Altered lymphocyte activity.
B. Generalized subgingival calculus.
C. Impaired polymorphonuclear phagocytosis.
D. Bacterial plaque.

Which syndrome presents with multiple cysts of the jaws?

A. Gardner’s.
B. Gorlin-Goltz.
C. Peutz-Jeghers.
D. Sjögren’s.

A 10 year old child with no previous caries experience has proximal carious lesions in the enamel only of several primary molars. How should the lesions be managed?

A. No treatment.
B. Be treated with topical fluoride, proper home care and observation.
C. Be smoothed with abrasive strips.
D. Be treated with fissure sealants.
E. Be restored with amalgam.

In a Tanaka and Johnson mixed dentition analysis, the mesiodistal width of permanent maxillary canines and premolars is determined by the width of the

A. permanent maxillary incisors.
B. permanent mandibular incisors.
C. primary canines and maxillary molars.
D. primary canines and mandibular molars.

Cartilage grows by

A. interstitial growth.
B. appositional growth.
C. both appositional and interstitial growth.
D. None of the above.

Which of the following is classified as a muscle of mastication?

A. Temporalis.
B. Buccinator.
C. Digastric.
D. Mylohyoid.

The line drawn through the occlusal rests of two principal abutments for a removable partial denture is the

A. survey line.
B. terminal line.
C. axis of rotation.
D. line of greatest torque.

The prognosis for an avulsed tooth is principally affected by

A. length of time the tooth was out of the mouth.
B. condition of the socket when the tooth was replanted.
C. removal of necrotic cementum.
D. pulp extirpation.
During the extraction of a primary tooth, when is it appropriate to leave root tips in the socket?

1. There is no infection in the area.
2. Root tip size is less than 2 mm.
3. Tips will not interfere with ensuing restorative procedures.
4. Tips will not interfere with development or eruption of permanent teeth.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

An incipient carious lesion is described as being in

A. dentin without pulpal involvement.
B. the cementum only.
C. the enamel and in the dentin up to 1 mm.
D. the enamel only.

For a patient who exhibits bruxism, a cast gold inlay is superior to an amalgam because the inlay has

A. better adaptation to the cavity walls.
B. greater thermal conductivity.
C. better ability to withstand masticatory forces.
D. easier placement into the cavity preparation.

Hypercementosis at the root apex is often associated with

A. hypothyroidism.
B. Paget’s disease.
C. orthodontic tooth movement.
D. normal occlusal function.
E. hyperparathyroidism.

All of the following are strategies for increasing the fracture toughness of dental ceramics EXCEPT

A. slow cooling after sintering.
B. tetragonal zirconia addition.
C. self-glazing.
D. crystalline phase dispersion.

Which of the following is NOT a clinical finding of hypothyroidism?

A. Anxiety.
B. Mild tremor.
C. Puffy eyelids.
D. Exophthalmos.

The most likely diagnosis of a 1 cm mobile mass in the parotid is

A. mucoepidermoid carcinoma.
B. pleomorphic adenoma.
C. adenoid cystic carcinoma.
D. acinic cell carcinoma.
E. Warthin’s tumour.

A bimaxillary protrusion occurs when

A. a large overjet of the maxillary central incisors exists.
B. the maxillary dentition is in a forward position to the basal bone.
C. the maxillary and mandibular incisors are in a forward position to the basal bone.
D. None of the above.

When a partial denture is to be fabricated where occlusal adjustment of the natural teeth is required, this should be performed

A. prior to taking the final impressions.
B. prior to registering centric relation but after final impression taking.
C. after the framework has been constructed.

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In comparing polysulfide, polyether and addition cured silicone impression materials, which of the following statements is true?

A. All three of the materials contract slightly during curing.
B. All three of the materials expand slightly upon cooling from mouth temperature (37°C) to room temperature (20°C).
C. After one week, addition cured silicones will undergo more distortion than polysulfides.
D. Lead oxide is used as an activator in silicones.

The volumetric polymerization shrinkage of a hybrid composite resin is in the order of

A. 0%.
B. 0.1 – 1.0%.
C. 2 – 8%.
D. 10 – 15%.

A drug inhibiting ATP release at a site of injury could be a potential analgesic because ATP

A. inhibits nociceptors.
B. activates nociceptors.
C. causes vasoconstriction.
D. prevents vasoconstriction.

Which of the following lower(s) the body temperature increased by bacterial pyrogens?

1. Acetaminophen.
2. Bradykinin.
3. Acetylsalicylic acid.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following procedures should be used to reduce the risk of exposure to mercury vapour?

1. Staff education.
2. Rubber dam.
3. High velocity suction.
4. Surgical mask.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.
Which of the following is the greatest risk factor for rampant caries in children?

A. Frequent ingestion of polysaccharides.
B. Frequent ingestion of high sucrose-containing foods.
C. Severe enamel hypoplasia.
D. Deficiency of vitamin D.

A retrograde filling is indicated

A. when the apical foramen cannot be sealed by conventional endodontics.
B. when a root perforation needs to be sealed.
C. when conventional endodontics is impractical.
D. All of the above.

Which of the following is NOT associated with an aphthous ulcer?

A. Pain.
B. Pseudomembrane.
C. Vesicle.
D. Inflammation.

An anterior crossbite of a permanent maxillary incisor in a mixed dentition is most often associated with

A. a functional shift.
B. unexplainable genetic factors.
C. lingually situated supernumerary teeth.
D. prolonged retention of a primary incisor.
E. premature eruption of a maxillary incisor.

Which of the following principle fibre groups of the periodontal ligament is the most numerous and provides the main support for the tooth?

A. Horizontal.
B. Transseptal.
C. Oblique.
D. Gingival.

If an impression were taken with a polysulfide impression material of teeth exhibiting severe external undercuts a stone model should be poured

A. immediately.
B. after 30 minutes.
C. after 24 hours.

An overjet of 8mm is usually associated with

A. Class I cuspid relationship.
B. Class II cuspid relationship.
C. Class III cuspid relationship.
D. Class I molar relationship.

Which Angle’s malocclusion is most commonly associated with mouth breathing?

A. Class I.
B. Class II, division 1.
C. Class II, division 2.
D. Class III.

A cement base under an amalgam restoration should have

A. high modulus and high thermal diffusivity.
B. high modulus and low thermal diffusivity.
C. low modulus and high thermal diffusivity.
D. low modulus and low thermal diffusivity.
Which of the following is a sign of local anesthetic overdose?

A. Rash.  
B. Wheezing.  
C. Fainting.  
D. Convulsions.  
E. Swelling.

During dental treatment, a 45 year old male patient complains of a tight constriction of his chest, becomes pale and sweaty, feels nauseous and attempts to vomit. The most likely diagnosis is

A. pulmonary embolus.  
B. stroke.  
C. pneumonia.  
D. myocardial infarction.

A bacterial enzyme capable of altering the ground substance of the periodontal ligament is

A. amylase.  
B. hyaluronidase.  
C. dextranase.  
D. streptokinase.

Which cells migrate into the gingival sulcus in the largest numbers in response to the accumulation of plaque?

A. Plasma cells and monocytes.  
B. Polymorphonuclear leukocytes.  
C. Macrophages.  
D. Lymphocytes.  
E. Mast cells.

There is a differential between girls and boys with respect to the age at which the growth velocity reaches its peak. That difference is

A. boys six months ahead of girls.  
B. girls six months ahead of boys.  
C. girls one year ahead of boys.  
D. girls two years ahead of boys.

The retention form of a full crown preparation can be improved by

1. reducing the taper.  
2. increasing axial height.  
3. utilizing grooves or boxes.  
4. wider preparation margins.

The most likely diagnosis of a non-healing indurated ulcer on the lateral border of the tongue in a 60 year old patient is

A. a traumatic ulcer.  
B. major aphthous ulcer.  
C. squamous cell carcinoma.  
D. a deep fungal infection.  
E. tuberculosis.

A 6 year old has circumscribed suppurative lesions that look like cigarette burns on the left ear lobe and the right knuckles. The parents are cooperative and respond to the dentist in a coherent manner. The most likely diagnosis is

A. battered child syndrome.  
B. impetigo.  
C. osteogenesis imperfecta.  
D. Münchhausen syndrome.  
E. von Willebrand disease.
Which of the following local anesthetics is subject to inactivation by plasma esterases?

A. Procaine.
B. Lidocaine.
C. Prilocaine.
D. Mepivacaine.
E. Bupivacaine.

Fluorides taken systemically are

1. excreted in the urine.
2. deposited in teeth.
3. deposited in bone.
4. deposited in the nails.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A patient with bruxism is likely to demonstrate

1. radiographic evidence of the widening of the periodontal ligament.
2. increased mobility of teeth.
3. premature wear of occlusal surfaces.
4. TMJ discomfort.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The most common primary tooth to become ankylosed is

A. maxillary molar.
B. mandibular molar.
C. maxillary canine.
D. mandibular canine.

The Controlled Drugs and Substances Act controls the distribution and use of which of the following?

A. Acetaminophen.
B. Diazepam.
C. Ibuprofen.
D. Penicillin V.

Oral peripheral giant cell lesions of the periodontium are usually considered to be

A. non-neoplastic granulomatous lesions.
B. precursors of sarcoma.
C. malignant neoplasms.
D. benign neoplasms.
E. tuberculomas.

Which of the following is/are essential when using spherical rather than admix alloy for a routine amalgam restoration

1. a larger diameter condenser.
2. an anatomical wedge.
3. decreased condensing pressure.
4. a dead soft matrix band.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.
A clinical exam of a 7 year old reveals a white coating on the dorsum of the tongue. There is also bad breath. According to the mother, the child has had flu and fever. The most appropriate diagnosis is

A. hairy tongue.
B. geographic tongue.
C. hairy leukoplakia.
D. saburral tongue.

The main reason for adding copper to a dental amalgam alloy is to

A. increase expansion.
B. reduce tarnish resistance.
C. make amalgamation easier.
D. reduce the tin-mercury phase.

Ludwig’s angina initially involves a massive infection of the

A. parapharyngeal and retropharyngeal spaces.
B. submandibular and sublingual regions.
C. buccal superficial fascial and canine spaces.
D. maxillary and ethmoidal sinuses.

A patient telephones and tells you he has just knocked out his front tooth but that it is still intact. Your instructions should be to

A. put the tooth in water and come to your office at the end of the day.
B. wrap the tooth in tissue and come to your office in a week's time.
C. put the tooth in alcohol and come to your office immediately.
D. place tooth under the tongue and come to your office immediately.
E. place the tooth in milk and come to your office immediately.

Zinc oxide eugenol cement is a/an

A. phosphate cement.
B. phenolic cement.
C. resin modified glass ionomer cement.
D. polyalkenoic acid cement.
E. adhesive resin cement.

The technique of amalgam bonding can be

A. used as the primary means of retaining an amalgam restoration.
B. relied upon to reinforce severely weakened cusps.
C. effective in providing an improved initial seal.
D. used in conjunction with copal varnish.

The objective of scaling and root planing during periodontal therapy is to remove

1. plaque.
2. calculus.
3. crevicular epithelium.
4. contaminated cementum.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following has a direct effect on periodontal tissues in diabetes mellitus-associated gingivitis?

A. Lipopolysaccharides.
B. Matrix metalloproteinases.
C. Proinflammatory cytokines.
D. Prostaglandins.
E. Leukotoxin.
Hypercementosis may be associated with
A. Paget’s disease.
B. ameloblastoma.
C. hypophosphatasia.
D. multiple myeloma.

Which of the following is the greatest risk factor for rampant caries in children?
A. Frequent ingestion of polysaccharides.
B. Frequent ingestion of high sucrose-containing foods.
C. Severe enamel hypoplasia.
D. Deficiency of vitamin D.

Repeated clasp adjustment can result in fracture due to
A. increased work-hardening.
B. increased ductility.
C. increasing of the modulus of elasticity.
D. lowering of the yield strength.

The most radiosensitive cell type is a/an
A. neuron.
B. chondrocyte.
C. myocyte.
D. epithelial basal cell.

Fixed partial denture pontics should
A. completely replace the missing supragingival tooth structure.
B. have a concave surface touching the mucosa.
C. have minimal soft tissue coverage.
D. hide the porcelain-metal junction on their gingival aspect.

Which of the following nerves should be anesthetized for the removal of a maxillary first molar?
1. Greater palatine.
2. Naso palatine.
3. Middle superior alveolar.
4. Anterior superior alveolar.
5. Posterior superior alveolar.
A. (1) (2) (4)
B. (1) (3) (4)
C. (1) (3) (5)
D. (2) (3) (5)
E. (2) (4) (5)

What is the most likely cause of the interdental papilla protruding from beneath the rubber dam after placement?
A. The holes were placed too far apart.
B. A light weight dam was used.
C. The holes were placed too close together.
D. The teeth were not individually ligated.

When odontoblasts are destroyed, new odontoblasts are derived from
A. existing odontoblasts.
B. macrophages.
C. neural crest cells.
D. undifferentiated cells.

Which of the following has both ectodermal and mesodermal tissues?
A. Ameloblastoma.
B. Cementoblastoma.
C. Odontoma.
D. Odontogenic myxoma.

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The problem most likely to result from a temporary crown with inadequate proximal contacts is

A. frequent decementation of the temporary crown.
B. gingival recession.
C. difficulty in seating the permanent crown.
D. an esthetically compromised restoration.

In assessing the terminal plane relationship of the primary second molars and its effect on the permanent dentition, a

A. flush terminal plane usually develops into a Class II molar relationship.
B. distal step usually develops into a Class I molar relationship.
C. flush terminal plane usually develops into a Class I molar relationship.
D. distal step usually develops into a Class III molar relationship.

Assuming daily maximums are not exceeded, which of the following is/are appropriate for pain management following an emergency pulpectomy for an adult with a history of severe asthma and nasal polyps?

1. Naproxen 250mg, every 6 - 8 hours p.r.n.
2. Acetylsalicylic acid 650mg every 4 - 6 hours p.r.n.
3. Ketorolac 10mg every 4 - 6 hours p.r.n.
4. Acetaminophen 1000mg every 4 - 6 hours p.r.n.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A 43 year old patient with a history of severe asthma and nasal polyps has an emergency pulpotomy. Assuming daily maximums are not exceeded, which of the following is the most appropriate drug management?

A. Acetaminophen 100 mg every 4 hours.
B. Naproxen 250 mg every 6-8 hours.
C. Ketorolac 10 mg every 4 hours.
D. Acetylsalicylic acid 650 mg every 4 hours.

Which treatment procedure is indicated for a patient with asymptomatic age related gingival recession?

A. Connective tissue graft.
B. Gingivoplasty.
C. Lateral sliding flap.
D. Gingival graft.
E. No treatment.

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It is advisable to polish any restorative material as smoothly as possible in order to prevent
A. microleakage.
B. accumulation of plaque.
C. overhanging margins.
D. electro-chemical action.

Which of the following is most likely to displace the adjacent teeth?
A. Lateral periodontal cyst.
B. Dentigerous cyst.
C. Periapical cemental dysplasia.
D. Periapical abscess.
E. Radicular cyst.

The most appropriate radiographic examination for a new patient with an extensively restored dentition and generalized periodontal disease is
(a)
A. full mouth periapicals.
B. full mouth periapicals and bitewings.
C. panoramic radiograph.
D. panoramic radiograph and bitewings.
E. cone beam computed tomography.

The lowest level of fluoride in drinking water which will cause enamel mottling is
A. 0.5ppm.
B. 1.0ppm.
C. 3.0ppm.
D. 5.0ppm.

A patient has been taking a systemic corticosteroid for 10 years. Which skeletal disorder would the patient most likely have as a result of this medication?
A. Osteopetrosis.
B. Osteogenesis imperfecta.
C. Skeletal hyperostosis.
D. Osteoporosis.
E. Osteoarthritis.

An immediate toxic reaction to a local anesthetic administration is caused by a/an
A. deterioration of the anesthetic agent.
B. hypersensitivity to the vasoconstrictor.
C. hypersensitivity to the anesthetic agent.
D. excessive blood level of the anesthetic agent.

In teeth with complete pulp necrosis, the periapical area is involved if
1. there is pain to thermal stimuli.
2. there is pain on percussion.
3. the tooth throbs when the patient is lying down.
4. the radiograph shows an apical radiolucency.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The proximal surfaces of two adjacent teeth in contact form the borders of the
A. interdental space.
B. embrasures.
C. interdental col.
D. line angles.

The main purpose of X-ray collimation is to
A. lower the kilovoltage.
B. filter out low energy X-rays.
C. reduce the diameter of the primary beam.
D. reduce the exposure time.

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On bite-wing radiographs, the normal alveolar crest on a young adult is

A. 1-2mm apical to the cementoenamel junction.
B. 3-4mm apical to the cementoenamel junction.
C. at the cementoenamel junction.
D. not clearly distinguishable.

The highest incidence of congenitally missing lateral incisors is most likely seen in a patient with

A. unilateral cleft lip and palate.
B. congenital heart disease.
C. Down syndrome.
D. hyperthyroidism.

The bond between porcelain and metal in a ceramometal (porcelain bonded to metal) crown is

A. chemical.
B. mechanical.
C. equally chemical and mechanical.
D. neither chemical nor mechanical.

A 29 year old patient developed multiple ulcerated lesions on the buccal attached gingiva one day ago. No fever, malaise or lymphadenopathy is present. The most likely diagnosis is

A. primary herpetic gingivostomatitis.
B. recurrent herpes simplex infection.
C. aphthous ulcers.
D. necrotizing ulcerative gingivitis.

Cephalometric standards

1. are racially biased.
2. may vary with patient development.
3. include a range of application.
4. are the basis for diagnosis.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The microscopic appearance of the central giant cell granuloma of the jaws is similar to that of lesions which occur in

A. hyperparathyroidism.
B. Paget's disease.
C. cleidocranial dysplasia.
D. hyperpituitarism.

Which is the most appropriate treatment for a patient who reports persistent thermal sensitivity 4 weeks after placement of a posterior composite resin restoration with acceptable occlusion?

A. Adjust the restoration slightly out of occlusion.
B. Replace the restoration with a reinforced zinc oxide eugenol restoration.
C. Replace the restoration with a bonded amalgam restoration.
D. Replace the restoration with a bonded composite resin restoration.

Which of the following muscles has two separate functions in mandibular movement?

A. Masseter.
B. Geniohyoid.
C. External (lateral) pterygoid.
D. Buccinator.
A patient presents with a dislocated mandible after an accident. After reduction, the management of this patient should be to

A. inject the joint with hydrocortisone.
B. refer for joint surgery.
C. advise vigorous exercise of the mandible.
D. recommend mandibular movement be minimized.

A surgical flap not repositioned over a bony base will result in

1. slower healing.
2. foreign body inflammatory reaction.
3. wound dehiscence.
4. necrosis of bone.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

For an acid-etched Class III composite resin, the cavosurface margin of the cavity can be bevelled to

1. eliminate the need for internal retention.
2. improve convenience form.
3. aid in finishing.
4. increase the surface area for etching.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

In an infection caused by non-penicillinase producing staphylococcus, the drug of choice is

A. penicillin V.
B. cephallexin.
C. tetracycline.
D. vancomycin.

A study has been conducted comparing rates of dental caries in 25 cities with differing levels of fluoride in the water supply. This study is a/an

A. cross-sectional study.
B. community trial.
C. ecological study.
D. case series.

Oral nitrate is used to treat the symptoms of

A. hypertension.
B. angina.
C. arrhythmia.
D. tachycardia.

A surgical flap for the extraction of a tooth should be designed to

A. avoid attached gingiva.
B. remain coronal to the mucogingival junction.
C. be partial thickness.
D. have a wide base.
The absence of a pulp chamber in a deciduous maxillary incisor is most likely due to
A. amelogenesis imperfecta.
B. hypophosphatasia.
C. trauma.
D. ectodermal dysplasia.
E. cleidocranial dysostosis.

Which of the following periodontal procedures is indicated on a maxillary canine that will receive a full crown with subgingival margins when the abutment has 1 mm of attached gingiva, no sign of inflammation or loss of attachment?
A. Curettage and root planing.
B. Coronally positioned flap.
C. Localized gingivectomy.
D. Autogenous connective tissue graft.
E. There is no indication that this tooth requires periodontal treatment.

Which of the following sweeteners used in sugarless gum is most effective in preventing caries?
A. Xylitol.
B. Sorbitol.
C. Mannitol.
D. Glycerol.

Which of the following is NOT an effect of the administration of acetaminophen?
A. Analgesic.
B. Anti-inflammatory.
C. Inhibition of CNS cyclooxygenase.
D. Antipyretic.

What is the most likely cause of a maxillary denture dislodging when the patient opens wide or makes extreme lateral excursions?
A. Insufficient posterior palatal seal.
B. Poor denture base adaptation.
C. Labial frenum impingement.
D. Coronoid process interference.
E. Pronounced midpalatal raphe.

One week following the placement of a small, Class II composite resin, the patient returns with pulpitis. The most likely cause is
A. microleakage.
B. hyperocclusion of the restoration.
C. polymerisation expansion of the restoration.
D. incomplete curing.

The instrument best suited for root planing is a/an
A. hoe.
B. file.
C. curette.
D. sickle scaler.
E. ultrasonic scaler.

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Radiographic examination of a 9 year old patient reveals the pre-eruptive position of a mandibular second premolar is tipped 20 degrees from vertical. The primary second molar exhibits no root resorption. The most appropriate management is to

A. surgically upright the premolar.
B. remove the primary second molar and place a space maintainer.
C. recall the patient for reassessment in 6 months.

The histopathologic changes in chronic gingivitis are characterized by

A. loss of rete pegs and destruction of the basement membrane.
B. hyalinization of the principal fibres of the periodontal ligament.
C. an inflammatory infiltrate of plasma cells and lymphocytes.
D. an inflammatory infiltrate in which polymorphonuclear cells predominate.

Which of the following cements can chemically bond to enamel?

1. Zinc phosphate cement.
2. Polycarboxylate cement.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The genial tubercles are best visualized on which type of radiograph?

A. Occlusal.
B. Periapical.
C. Bitewing.
D. Panoramic.

Which of the following procedures is NOT indicated for the management of infrabony defects?

A. Gingivectomy.
B. Regenerative surgery.
C. Flap surgery.
D. Gingival graft.

A 20 year old has a solitary radiolucent lesion in the left maxillary tuberosity. The histologic diagnosis is an odontogenic keratocyst/keratoctenic odontogenic tumour. What is the recurrence rate of this tumour?

A. It does not recur.
B. 10-30%.
C. 40-60%.
D. 70-90%.

In partial denture design, the major connector should

A. rigidly connect the bilateral components.
B. act as a stress-breaker.
C. not interfere with lateral forces.
D. dissipate vertical forces.

A 15 year old presents with hypoplastic enamel on tooth 1.5. All other teeth are normal. This was most probably caused by a/an

A. vitamin D deficiency.
B. generalized calcium deficiency.
C. high fever encountered by the patient when he had measles at age 3.
D. infection of tooth 5.5 during the development of tooth 1.5.
E. hereditary factor.
Which of the following root surfaces are most likely to have flutings/concavities that will make thorough root debridement difficult?

A. Mesial of teeth 1.1/2.1.
B. Mesial of teeth 1.2/2.2.
C. Mesial of teeth 1.3/2.3.
D. Mesial of teeth 1.4/2.4.

Epinephrine should NOT be used as a vasoconstrictor for patients with uncontrolled

A. hyperthyroidism.
B. hyperparathyroidism.
C. myxedema.
D. asthma.

Which of the following restorations is the most appropriate for a primary molar with 3 or more carious surfaces in a high caries-risk child?

A. Bonded amalgam.
B. Composite resin.
C. Stainless steel crown.
D. Resin modified glass ionomer cement.

A patient suddenly becomes pale and sweaty after an injection of 4ml of lidocaine 2% with epinephrine 1:100,000. The radial pulse is slow and steady. The respiration is slow. The blood pressure is 80/60. What is the most probable diagnosis?

A. A toxic reaction to lidocaine.
B. A toxic reaction to epinephrine.
C. An allergic reaction to the local anesthetic.
D. Incipient syncope.
E. An impending adrenal insufficiency.

The vibrating line in a completely edentulous maxilla is

A. the junction between the hard and soft palate.
B. a well-defined line that maintains a distinct shape and location.
C. the junction between the movable and immovable soft palate.
D. an imaginary line that crosses the soft palate posterior to the fovea palatini.

The antibiotic of choice for infections of pulpal origin is

A. penicillin V.
B. metronidazole.
C. erythromycin.
D. tetracycline.

A patient has a history of shortness of breath and ankle edema. You would suspect

A. asthma.
B. emphysema.
C. rhinophyma.
D. cardiac insufficiency.

A 45 year old patient has 32 unrestored teeth. The only defects are deeply stained grooves in the posterior teeth. Clinical examination reveals no evidence of caries in the grooves. The treatment of choice is

A. application of pit and fissure sealants.
B. preventive resin restorations.
C. conservative Class I amalgams.
D. prophylactic odontotomy.
E. no treatment.
What is the most common intraoral location of squamous cell carcinoma?

A. Lateral tongue.
B. Buccal mucosa.
C. Tonsilar bed.
D. Attached gingiva.

Leukemic gingivitis may be misdiagnosed as

A. ascorbic acid deficiency gingivitis.
B. infectious mononucleosis.
C. thrombocytopenic purpura.
D. necrotizing ulcerative periodontitis.

The undesirable side-effect most commonly associated with use of a finger spring to tip the crown of an anterior permanent tooth is

A. pain.
B. gingival irritation.
C. tendency for the tooth to intrude.
D. severe mobility of the tooth.

The desired termination point of apical root canal preparation when performing endodontic treatment on a vital tooth is

A. 0.5 to 1mm short of the radiographic apex.
B. 3mm short of the radiographic apex.
C. slightly through the apical foramen.
D. to the point where the patient feels sensation.

Mobility of teeth WITHOUT loss of bone support suggests

A. a primary occlusal trauma.
B. a secondary occlusal trauma.
C. an atrophic condition of the periodontium.

In designing a removable partial denture, an effort is made to secure parallel tooth surfaces to act as

A. guiding planes.
B. occlusal rest areas.
C. bracing areas.
D. None of the above.

Which of the following will impede healing following the surgical closure of an oroantral fistula?

1. Poor flap design.
2. Excessive tissue tension.
3. Blowing the nose.
4. Sinus infection.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A diastema between two maxillary central permanent incisors could be

A. normal.
B. associated with the absence of permanent maxillary lateral incisors.
C. associated with a large labial frenum.
D. All of the above.

If a complete occlusal adjustment is necessary, interferences should be corrected

A. after all restorative procedures are completed.
B. after each restorative procedure.
D. during treatment.

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Which patient would NOT be predisposed to liver toxicity following a dose of 1000mg of acetaminophen?

A. An adult with liver cirrhosis.
B. A chronic alcoholic.
C. A diabetic.
D. A 15kg, 4 year old child.

One week following extraction of teeth 1.8 and 4.8, an 18 year old male returns to the dental office complaining of persistent bleeding from the extraction sites. The medical history is unremarkable, except for episodes of bruising and joint swelling as a child. Subsequent blood tests show normal bleeding time and a factor VIII level of 14%. The most likely cause of the bleeding is

A. a dry socket.
B. ibuprofen intake.
C. hemophilia A.
D. cirrhosis of the liver.
E. vitamin K deficiency.

What is the most common site for intraoral squamous cell carcinoma?

A. Gingiva.
B. Floor of mouth.
C. Buccal mucosa.
D. Dorsum of tongue.

Which of the following drugs is used in the treatment of mild allergic reactions?

A. Isoproterenol.
B. Meperidine hydrochloride.
C. Diphenhydramine hydrochloride.
D. Propoxyphene.

Which of the following compounds released by inflammatory cells induces bone resorption?

A. Nitric oxide.
B. Interleukin-1.
C. Bradykinin.
D. Alkaline phosphatase.

Osteoporosis may result from

A. hypothyroidism.
B. acromegaly.
C. diabetes.
D. prolonged steroid therapy.

A 55 year old patient wants to maintain bone mass following implant surgery and plans to take extra calcium. Supplemental calcium is most beneficial when consumed in

A. divided doses with meals.
B. divided doses between meals.
C. a single dose with meals.
D. a single dose between meals.

A maxillary complete denture exhibits more retention and stability than a mandibular one because it

1. covers a greater area.
2. incorporates a posterior palatal seal.
3. is not subject to as much muscular displacement.
4. is completely surrounded by soft tissue.

What is the most common site for intraoral squamous cell carcinoma?

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A maxillary complete denture exhibits more retention and stability than a mandibular one because it

1. covers a greater area.
2. incorporates a posterior palatal seal.
3. is not subject to as much muscular displacement.
4. is completely surrounded by soft tissue.

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Which of the following structures lies inferior to the mylohyoid muscle at the level of the mandibular second molar?

A. Lingual artery.
B. Lingual vein.
C. Lingual nerve.
D. Submandibular duct.

Sterilization of carious dentin without pulp injury is assured by the application of

A. phenol.
B. 70% ethyl alcohol.
C. chlorhexidine.
D. absolute alcohol.
E. None of the above.

Which of the following foods is the most cariogenic?

A. Cheese.
B. Dark chocolate.
C. Jam.
D. Toffee.

Healthy attached gingiva

A. has no basal cell layer.
B. is closely bound to underlying periosteum.
C. contains elastic fibers.
D. has no rete pegs.

Bacterial infection may be confirmed by

1. white blood cell count.
2. hemoglobin level.
3. erythrocyte sedimentation rate.
4. platelet count.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A patient on anticoagulant drugs who requires an extraction has a prothrombin time of 20 seconds. The control is 15 seconds. The most appropriate management is to

A. administer vitamin K after the extraction.
B. administer vitamin K before the extraction.
C. extract the tooth and use local measures to control bleeding.
D. discontinue anticoagulation drugs one week before extraction.

Following a simple extraction of tooth 4.7, hemostasis was achieved. Four hours later, there is renewed bleeding from the extraction site. The most appropriate initial management is to

A. administer local anesthetic with epinephrine and suture.
B. apply firm pressure for ten minutes.
C. obtain an INR and complete blood count.
D. apply dry socket dressing.
A 20-year old male presents with a three-day history of an acute generalized gingivitis. He has malaise, fever and bilateral cervical lymphadenopathy. A blood examination reveals

Hb: 8.9g/100ml  
Platelets: 82,000/mm³  
Red blood cell count: 3,900,000/mm³  
White blood cell count: 870,000/mm³  

Normal Values:

Hb: 14-18g/100ml  
Platelets: 150,000-400,000/mm³  
Red blood cell count: 4-5million/mm³  
White blood cell count: 5,000-10,000/mm³  

The most likely diagnosis is

A. thrombocytopenic purpura.  
B. acute myelogenous leukemia.  
C. infectious mononucleosis.  
D. acute necrotizing ulcerative gingivitis.  

What is the earliest age that a congenitally missing mandibular second bicuspid can be confirmed?

A. 2 years.  
B. 4 years.  
C. 6 years.  
D. 8 years.  

Periapical surgery is CONTRAINDICATED for a tooth that has a

A. large periapical lesion.  
B. fistula related to a periapical lesion.  
C. vertical root fracture.  
D. a post and core retained crown.  

In a child with a high caries incidence, the most appropriate cement for a band and loop space maintainer is

A. zinc oxyphosphate.  
B. glass ionomer.  
C. zinc oxide and eugenol.  
D. polycarboxylate cement.  

The tooth surfaces LEAST susceptible to caries are

A. mesial of the maxillary arch.  
B. lingual of the mandibular arch.  
C. distal of the maxillary arch.  
D. occlusal of the mandibular arch.  
E. lingual of the maxillary arch.
Desquamative gingivitis is seen in

1. pemphigus vulgaris.
2. mucous membrane pemphigoid.
3. erosive lichen planus.
4. erythema multiforme.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A patient who has spider telangiectasia spots on his skin should have an examination to determine the condition of his

A. lungs.
B. liver.
C. kidneys.
D. pancreas.
E. gallbladder.

Overlapped interproximal contacts in a bite-wing radiograph are caused by an X-ray tube cone

A. with incorrect vertical angulation.
B. with incorrect horizontal angulation.
C. of incorrect length.
D. of incorrect shape.

When epinephrine 1:1000 is administered intramuscularly for the management of anaphylaxis in an adult, the most appropriate volume for an initial dose is

A. 0.04ml.
B. 0.3 – 0.5ml.
C. 1.0 – 1.5ml.
D. 1.8ml.

Which of the following clinical conditions is the most serious?

A. Acute periapical abscess of a mandibular central incisor.
B. Middle face cellulitis.
C. Chronic periapical abscess of a mandibular third molar.
D. Infected dentigerous cyst.

The risk of transmission of Hepatitis B Virus (HBV) is greater than that of Human Immunodeficiency Virus (HIV) because HBV is

1. more resistant than HIV.
2. transmissible through saliva.
3. in higher numbers in blood than HIV.
4. autoclave resistant.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Using a high speed dental handpiece WITHOUT water coolant will

A. produce a smoother surface.
B. decrease pulpal damage if used with light pressure.
C. reduce clogging of dental bur.
D. reduce debris accumulation.
E. increase frictional heat.

Initial scaling and oral hygiene instruction in the treatment of periodontitis results in all of the following EXCEPT

A. pocket shrinkage.
B. decreased hemorrhage during surgery.
C. evaluation of the patient's motivation.
D. improved healing after surgery.
E. correction of pathological migration of teeth.

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Incomplete polymerization of composite resin will occur when the resin comes in contact with

A. zinc-phosphate cement.
B. calcium-hydroxide lining.
C. zinc-oxide-eugenol base.
D. glass ionomer lining.
E. polycarboxylate cement.

Benign neoplasms
1. grow slowly.
2. are generally painless.
3. can be managed conservatively.
4. can metastasize.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The quantity of radiation output in a dental X-ray apparatus is a function of
1. time.
2. kVp.
3. ma.
4. filtration.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

When designing a removable partial denture, changing the tilt of the cast on the surveyor alters the

A. path of insertion of the planned removable partial denture.
B. the position of the survey line on the cast.
C. the undercut and non-undercut areas.
D. the direction of forces applied to the partial denture.

The interocclusal relationship of the primary second molars
1. does not affect the resultant permanent molar relationship.
2. is normal if there is a flush terminal plane.
3. determines the amount of leeway space.
4. may aid in the prediction of permanent tooth malocclusion.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The characteristics of "Group function occlusion" are:
A. The teeth on the non-working side make contact in lateral excursion.
B. The teeth on the working side make contact in lateral excursion.
C. Only canine and lateral incisors make contact in lateral excursion.
D. The posterior teeth on both sides make contact in lateral excursion.

In which of the following conditions is there a risk of malignant change after radiotherapy?
A. Fibrous dysplasia.
B. Mucocele.
C. Lymphangioma.
D. Torus palatinus.

Which of the following drugs inhibits salivary flow?
A. Penicillin V.
B. Loratadine.
C. Probantheline.
D. Nystatin.

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Aphthous ulcers are characterized by

1. pain.
2. pseudomembranes.
3. inflammation.
4. vesicle formation.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Acquired Immune Deficiency Syndrome (AIDS) may be characterized by

1. candidiasis.
2. rapid weight loss and night sweats.
3. extreme malaise, fever or chills.
4. a smooth and red tongue.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following bacterial products have been implicated in the initiation of inflammatory periodontal disease?

1. Protease.
2. Hyaluronidase.
3. Neuraminidase.
4. Endotoxin.
5. Desxyribonuclease.

A. (1) and (2)
B. (1) (2) (4)
C. (2) (3) (4)
D. (2) (3) (5)
E. (3) (4) (5)

The most appropriate time to initiate surgical treatment of a prognathic mandible immediately follows the

A. primary dentition.
B. early mixed dentition.
C. late mixed dentition.
D. cessation of growth.

A metal-ceramic crown is being placed on tooth 1.6. The patient has ideal occlusal relationships and the crown has been adjusted so that it is not in supraocclusion. Which of the following occlusal contact points should be eliminated?

A. Inclined plane of the mesiobuccal cusp.
B. Mesial marginal ridge.
C. Mesial lingual cusp tip.
D. Central fossa.

Which of the following is used to verify the effectiveness of instrument sterilization?

A. Gram-negative bacteria.
B. Anaerobic bacteria.
C. Spores.
D. Oral microorganisms.

Generalized widening of the periodontal ligament space is a radiologic characteristic of

A. lupus erythematosus.
B. scleroderma.
C. Stevens-Johnson syndrome.
D. osteitis deformans.
E. acromegaly.
Accessory canals in permanent teeth are most commonly found in the
A. cervical third of the root.
B. middle third of the root.
C. apical third of the root.

An Angle Class II dental malocclusion in the mixed dentition will most likely
A. develop into an Angle Class I malocclusion with normal exfoliation of the primary molars.
B. worsen with forward growth of the maxilla.
C. develop into an Angle Class I malocclusion with late mandibular growth.
D. develop into a skeletal malocclusion with growth of the maxilla and mandible.
E. not change as the maxilla and mandible grow.

Shortly after the administration of an inferior alveolar nerve block, a healthy adult patient rapidly develops a facial rash. Which of the following signs and symptoms should be watched for before initiating the planned dental treatment?
1. Pallor and perspiration.
2. Shortness of breath.
3. Hyperventilation.
4. Edema of the lips.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Radiation dose to the patient is reduced by
1. using a high speed film.
2. using an aluminum filter.
3. increasing the target-film distance.
4. using low kVp.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

In a xerostomic patient, which salivary glands are most likely responsible for the lack of lubrication?
A. Accessory.
B. Labial.
C. Parotid.
D. Sublingual and submandibular.

In alginate impression materials, sodium phosphate (Na₃PO₄) is the
A. reactor.
B. catalyst.
C. retarder.
D. disinfectant.
E. cross linking agent.

Acquired pellicle
A. is composed of salivary glycoproteins.
B. takes 24 hours to establish.
C. is difficult to remove.
D. causes inflammation.
Which anatomical structures form the inverted Y (Y line) in maxillary periapical radiographs?

A. Nasopalatine/incisive canal and floor of the nasal fossa.
B. Anterior nasal spine and nasopalatine/incisive canal.
C. Floor of the nasal fossa and maxillary sinus border.
D. Zygomatic process of the maxilla and maxillary sinus border.

Alveolar bone is undergoing remodeling

A. through the primary dentition.
B. until the end of mixed dentition.
C. until the complete eruption of permanent teeth.
D. throughout life.

Irregularly distributed shallow to moderate craters in the interseptal bone are best eliminated by

A. osteoplasty.
B. gingivoplasty.
C. deep scaling.
D. bone grafting.

Lidocaine (Xylocaine®) is an example of a local anesthetic which is chemically classified as an

A. amide.
B. ester.
C. aldehyde.
D. ethamine.
E. aminide.

Which of the following cements can chemically bond to enamel?

1. Zinc phosphate cement.
2. Polycarboxylate cement.
3. Ethoxy benzoic acid cement.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A cement that can chemically bond to enamel is

A. (1) and (3).
B. (2) and (4).
C. All of the above.

In a Class I occlusion the

A. distal inclined plane of the maxillary canine articulates with the mesial inclined plane of the mandibular canine.
B. mesial inclined plane of the maxillary canine articulates with the distal inclined plane of the mandibular canine.
C. the primary canines are end-to-end.
D. the permanent canines are end-to-end.

Dental plaque developing on tooth surfaces will result in

A. demineralization of enamel.
B. periodontal disease.
C. amelogenesis imperfecta.
D. A. and B.

In which of the following defects is bone regeneration most likely to occur?

A. One-wall bony defect.
B. Two-wall bony defect.
C. Three-wall bony defect.

What is the best predictor of success for a composite resin restoration?

A. Depth of the restoration.
B. Size of the restoration.
C. Presence of enamel on the entire periphery.
D. Presence of flat dentinal walls.

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During preparation of a subgingival Class V on tooth 3.6, a patient suddenly develops a swelling of the left face and neck with crepitation. The most probable diagnosis is a/an

A. anaphylactoid reaction.
B. hematoma.
C. cervicofacial emphysema.
D. type 1 allergic reaction.

Which of the following is NOT an early clinical manifestation of local anesthetic overdose?

A. Nystagmus.
B. Slurred speech.
C. Decreased heart rate.
D. Increased respiratory rate.

The appropriate management for an avascular white lesion, 5 x 3mm in size, that has been present on the buccal mucosa for 6 months and has recently become ulcerated is

A. observation.
B. excisional biopsy.
C. incisional biopsy.
D. aspiration biopsy.
E. cytologic examination.

When compared to a conventional complete denture, an overdenture

A. is more fracture resistant.
B. preserves more alveolar bone.
C. causes less soft tissue inflammation.
D. is less expensive.

Which of the following has/have analgesic, antipyretic and anti-inflammatory effects?

A. Acetominophen.
B. Acetylsalicylic acid.
C. Bradykinin.
D. A. and B.
E. None of the above.

In a 4 year old the most appropriate treatment for a chronically infected, non-restorable first primary molar is to

A. extract it and place a space maintainer.
B. observe it until it exfoliated.
C. extract it.
D. observe it until it becomes symptomatic.

Which of the following has/have analgesic, antipyretic and anti-inflammatory effects?

A. Acetominophen.
B. Acetylsalicylic acid.
C. Bradykinin.
D. A. and B.
E. None of the above.

Which of the following statements regarding physiologic changes in an elderly patient is correct?

A. Creatinine production is reduced.
B. Plasma albumin is increased.
C. Relative tissue perfusion is unaltered.

Solitary eosinophilic granuloma is associated with

A. multiple myeloma.
B. hyperparathyroidism.
C. hypoparathyroidism.
D. Langerhans cell histiocytosis.

Which of the following is LEAST likely to be associated with fissured tongue?

A. Oral lichen planus.
B. Melkersson-Rosenthal syndrome.
C. Geographic tongue.

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Light-cured dental composites set when exposed to light. Light is the
A. initiator.
B. reactor.
C. catalyst.
D. activator.
E. terminator.

Detection of periodontal pockets is done by
A. visual examination.
B. radiographic examination.
C. testing for mobility of teeth.
D. probing.

In which of the following patients can you safely extract a tooth in a dental office setting?
A. Two weeks after a myocardial infarct.
B. Four months into pregnancy.
C. Suffering from Factor VIII deficiency.
D. Presenting with bilateral submandibular space abscess.

The greatest cariogenic potential is exhibited by
A. cheese.
B. apples.
C. chewing gum.
D. raisins.

Serial extraction in orthodontics
A. results in the loss of four 1st permanent premolars.
B. is the treatment for Class II skeletal malocclusions with severe space shortage.
C. is commenced with bilateral expansion of the arches.
D. is best suited to Class I dental and skeletal malocclusions with minimal space shortage.
E. requires leeway space maintenance.

The binder in casting investments not only strengthens the investment, but also
A. creates a reducing atmosphere in the mold.
B. tends to reduce both hygroscopic and thermal expansions.
C. increases the thermal expansion of the mold.
D. contributes to the overall expansion of the mold.

The choice and number of abutments for a fixed partial denture is influenced by the
1. length of the span.
2. crown-root ratio of the abutments.
3. amount of periodontal support of the abutments.
4. position of the abutments in the arch.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.
In minimizing the firing shrinkage of porcelain, the principal factor is the
A. fusion temperature.
B. ratio of flux to feldspar.
C. uniformity of particle size.
D. thoroughness of condensation.

The drug of choice for prophylactic antibiotic therapy for dental patients with a past history of rheumatic fever and a history of penicillin sensitivity is
A. methicillin.
B. clindamycin.
C. streptomycin.
D. tetracycline.

Dental plaque is composed of
A. desquamated epithelial cells.
B. components from oral secretions.
C. bacteria and their products.
D. cuticle or pellicle.
E. All of the above.

The epithelial attachment does not migrate apically in
A. juvenile periodontitis.
B. hyperplastic gingivitis.
C. chronic periodontitis.
D. rapidly progressive periodontitis.

In general, a pigmented macule measuring 4mm in diameter should be treated by
A. incisional biopsy.
B. excisional biopsy.
C. exfoliative cytology.
D. carbon dioxide laser.
E. electrocautery.

Which of the following impression materials has the best dimensional stability?
A. Polysulfide rubber.
B. Condensation silicone.
C. Polyvinylsiloxane.
D. Irreversible hydrocolloid.

When placing an implant in the posterior mandible, the minimum thickness of bone between the implant and the inferior alveolar nerve should be
A. 2mm.
B. 4mm.
C. 6mm.
D. 8mm.

A protective mechanism of the dental pulp to external irritation or caries is the formation of
A. pulp stones.
B. secondary dentin.
C. secondary cementum.
D. primary dentin.

Epinephrine is one drug used in the management of an acute anaphylactic reaction (Type I allergic reaction) because it
1. relaxes bronchial muscles.
2. stimulates heart muscle and increases heart rate.
3. increases systolic blood pressure.
4. produces vasoconstriction in many vascular beds.
A. (1) (2) (3)
B. (1) and (2)
C. (2) and (4)
D. (4) only
E. All of the above.

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Which of the following would NOT be prescribed for a patient receiving warfarin (Coumadin®)?

1. Acetylsalicylic acid.
2. Metronidazole.
3. Erythromycin.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

At what age is a child expected to have 12 erupted primary teeth and 12 erupted permanent teeth?

A. 4 1/2 years.
B. 6 1/2 years.
C. 8 1/2 years.
D. 11 1/2 years.

A radiographic examination of a 10 year old child reveals retention of deciduous teeth and presence of many unerupted supernumerary teeth. This is characteristic of

A. cleidocranial dysplasia.
B. ectodermal dysplasia.
C. dentinogenesis imperfecta.
D. congenital hypothyroidism.

Occasionally, mucous glands are seen in the epithelial lining of a dentigerous cyst. Which of the following terms best designates this state?

A. Anaplasia.
B. Metaplasia.
C. Dysplasia.
D. Neoplasia.
E. Hyperplasia.

Fluoridated toothpaste will be most effective in remineralizing

A. smooth surface decalcification.
B. interproximal caries.
C. bruxism-related attrition.
D. pit and fissure caries.

Which of the following is NOT associated with the administration of acetylsalicylic acid?

A. Tinnitus.
B. Analgesia.
C. Antipyresis.
D. Constipation.
E. Inhibition of prostaglandin synthesis.

Which statement is TRUE regarding electric pulp testing?

A. It does not confirm health or integrity of the pulp.
B. Vascularity can be determined.
C. True vitality can be determined.
D. Thicker enamel will lead to a quicker response.

Which of the following is appropriate to provide postoperative pain control for an 80kg, 20 year old patient with a confirmed allergy to codeine following the removal of 4 erupted third molars?

A. Hydromorphone 2 mg, every 4-6 hours prn.
B. Ibuprofen 800 mg, 1 hour preoperatively, followed by 400 mg, every 4-6 hours prn.
C. Acetaminophen 650 mg, with oxycodone 10 mg, every 4-6 hours prn.

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Which of the following mucosae is normally keratinized?

A. Soft palate.
B. Hard palate.
C. Lateral tongue.
D. Ventral tongue.

A positive Nikolsky’s sign is a diagnostic feature of

A. lichen planus.
B. erythema multiforme.
C. pemphigus vulgaris.
D. chronic marginal gingivitis.
E. lupus erythematosus.

The most important principle dictating location and size of access to the root canal system is

A. preservation of tooth structure.
B. removal of all caries.
C. straight line access to the canal.
D. removal of all pulp horns.

The disappearance of a calcium hydroxide liner under a restoration after a length of time is most likely a result of

A. microleakage.
B. gradual dissolution of the liner into the restorative material.
C. residual bacterial action on the hydroxyl ions.
D. incorporation into the adhesive agent.

Myxedema is associated with

A. insufficient parathyroid hormone.
B. excessive parathyroid hormone.
C. insufficient thyroid hormone.
D. excessive thyroid hormone.

Which of the following could cause clicking sounds during speech in denture wearers?

1. A non-balanced occlusion.
2. An excessive occlusal vertical dimension.
3. A reduced horizontal overlap.
4. A lack of denture retention.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Early anoxia is characterized by

A. cyanosis.
B. bradycardia.
C. branchospasm.
D. amnesia.

A 6-year-old child presents with a non-vital mandibular deciduous second molar which has a draining fistula in the bifurcation area. Your treatment of choice is

A. extraction.
B. observation.
C. pulpotomy.
D. direct pulp capping.

A bevel is CONTRAINDICATED on the cavosurface margins of a Class I amalgam cavity preparation because

A. this type of margin would tend to leak.
B. as the tooth undergoes natural attrition the bevel would be worn away.
C. a thin flange of the amalgam restorative material is prone to fracture.
D. the restoration is more difficult to polish.

A 6-year-old child presents with a non-vital deciduous second molar which has a draining fistula in the bifurcation area. Your treatment of choice is

A. extraction.
B. observation.
C. pulpotomy.
D. direct pulp capping.

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The greatest single factor in reducing radiation exposure in dentistry is

A. higher kVp.
B. proper filtration.
C. high speed film.
D. collimation of the X-ray beam.

During cavity preparation under rubber dam, a small mechanical exposure occurs. The correct procedure is to

A. swab the exposure with eugenol.
B. place calcium hydroxide over the exposure.
C. perform a pulpotomy.
D. perform a pulpectomy.

A removable orthodontic appliance, producing a light force on the labial of a proclined maxillary central incisor will cause

A. lingual movement of the crown and lingual movement of the root apex.
B. intrusion of the central incisor and lingual movement of the crown.
C. lingual movement of the crown and labial movement of the root apex.
D. intrusion of the central incisor.

A 22 year old presents with a fracture of the incisal third of tooth 2.1 exposing a small amount of dentin. The fracture occurred one hour previously. There is no mobility of the tooth but the patient complains that it is rough and sensitive to cold. The most appropriate emergency treatment is to

A. open the pulp chamber, clean the canal and temporarily close with zinc oxide and eugenol.
B. smooth the surrounding enamel and apply glass ionomer cement.
C. smooth the surrounding enamel and apply a calcium hydroxide cement.
D. place a provisional (temporary) crown.

The "smear layer" is an important consideration in

A. plaque accumulation.
B. caries removal.
C. pulp regeneration.
D. dentin bonding.

An oroantral communication occurs

A. more often with the removal of maxillary second premolars.
B. less often when the maxillary sinus has pneumatized into the alveolus.
C. more often with the removal of maxillary first molars.
D. less often in elderly patients.

The major advantage of glass ionomer cement as a restorative material is that it is

A. highly translucent.
B. a fluoride releasing material.
C. highly esthetic.
D. unaffected by moisture during the setting reaction.

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When removing bone or sectioning roots of teeth with a high-speed handpiece, the air/water combination should be set with

A. air and water on.
B. water only.
C. air only.
D. neither air nor water.

Gingival hyperplasia may be

A. familial.
B. idiopathic.
C. drug induced.
D. All of the above.
E. None of the above.

The antibiotic of choice for a periapical dental abscess is

A. pen V.
B. cephalosporin.
C. erythromycin.
D. metronidazole.
E. ampicillin.

Hyperplastic lingual tonsils may resemble which of the following?

A. Epulis fissuratum.
B. Lingual varicosities.
C. Squamous cell carcinoma.
D. Median rhomboid glossitis.
E. Prominent fungiform papillae.

Which of the following would differentiate clinically between an acute periradicular abscess and an acute periodontal abscess on a single rooted tooth?

A. Palpation.
B. Use of a local anesthetic.
C. Percussion.
D. Pulp vitality testing.

In a young patient living in an area with communal water fluoridation, the fluoride concentration of an erupted tooth is greatest

A. at the dentino-enamel junction.
B. on the surface of the clinical crown.
C. at the layer of dentin nearest the pulp chamber.
D. evenly throughout the enamel.

Median anterior maxillary cysts occur in the

A. nasal bone.
B. incisive canal and in the palatine process.
C. zygomatic process.
D. hamular process.
E. None of the above.

Reduced thyroid hormone level in a child is associated with

A. lack of tooth eruption.
B. early tooth eruption.
C. delayed tooth eruption.
D. supernumerary teeth.

Hyperemia of the pulp is

A. an acute inflammation of the dental pulp characterized by intermittent paroxysms of pain which may become continuous.
B. an excessive accumulation of blood in the pulp resulting in vascular congestion.
C. a chronic situation whereby minute arterioles of pulpal tissue are engorged for long periods creating temporary episodes of pain.
D. a transient invasion of bacterial elements into the outer lying stroma of the pulpal tissue.

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The interdental gingival col is the area between the
A. facial and lingual interdental gingiva.
B. facial and lingual attached gingiva.
C. distal and mesial interdental gingiva.

Before performing surgery on a patient who is taking warfarin, which of the following should be evaluated?
A. Bleeding time.
B. Clotting time.
C. Prothrombin time.
D. Coagulation time.

Gonion, menton and pogonion are all cephalometric landmarks located on the
A. maxilla.
B. mandible.
C. bony chin.
D. cranial base.
E. None of the above.

For acute dental pain, the daily maximum cumulative dose of acetaminophen is
A. 2400 mg.
B. 3200 mg.
C. 3600 mg.
D. 4000 mg.

The microorganism most commonly associated with root surface caries is
A. Actinomyces viscosus.
B. Streptococcus mutans.
C. Streptococcus salivarius.
D. Lactobacillus acidophilus.

All afferent impulses from the pulp result in the sensation of
A. heat.
B. pain.
C. proprioception.
D. cold.

Which of the following tissues is the LEAST sensitive to the effects of x-radiation?
A. Hematopoietic.
B. Gonadal.
C. Bone.
D. Glandular.

The most common problem associated with two adjacent implants is
A. peri-implantitis.
B. lack of interdental papilla.
C. granulation tissue.

Which component of a partial denture framework provides the best indirect retention?
A. Rest.
B. Circumferential clasp.
C. Lingual strap.
D. Proximal plate.

A 7-year old child who complains of pain when eating, has a large carious lesion on a permanent molar. A radiograph reveals no periapical change. Your treatment is
A. indirect pulp capping.
B. direct pulp capping.
C. vital pulpotomy.
D. prophylactic odontotomy.

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Gingival response to plaque microorganisms in elderly patients is

A. exaggerated due to an altered host immune response.
B. exaggerated due to a change in the type of infecting microorganisms.
C. the same in all ages.
D. decreased due to an altered host immune response.

Bacterial infection may be confirmed by

1. white blood cell count.
2. hemoglobin level.
3. erythrocyte sedimentation rate.
4. platelet count.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following is/are possible side effect(s) of codeine?

1. Respiratory depression.
2. Nausea.
3. Drowsiness.
4. Diarrhea.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A known insulin-dependent diabetic patient feels unwell following the administration of a local anesthetic and becomes pale and sweaty. This condition does not respond to placing the patient in a supine position. The most likely cause is

A. syncope.
B. adrenal insufficiency.
C. hyperglycemia.
D. hypoglycemia.
E. carotid sinus reflex.

When odontoblasts are destroyed or undergo degeneration, they are replaced by

A. ameloblasts.
B. undifferentiated mesenchymal cells.
C. multinucleated giant cells.
D. osteoblasts.

Trauma from occlusion may

A. initiate marginal gingivitis.
B. affect the blood supply to gingiva.
C. initiate periodontitis.
D. affect the progression of periodontitis.

Cervical caries on the maxillary primary incisors in a 12-month old child is most likely caused by

A. lack of systemic fluoride.
B. poorly formed enamel.
C. lack of calcium during pregnancy.
D. excessive bottle use.

A dental radiograph will accurately indicate

A. periodontal pocket depth.
B. the height of the bone on the facial surfaces of the teeth.
C. the extent of furcation involvements.
D. infrabony pocket topography.
E. None of the above.

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The most common cause of bilateral swelling of the parotid glands in children is

A. Mikulicz's disease.
B. mumps or acute infectious parotitis.
C. mixed salivary tumours.
D. sialolithiasis.

Secondary dentin will develop

A. if the teeth become abraded.
B. if cavities develop.
C. following fractures.
D. due to chemical irritation.
E. All of the above.

Acromegaly is associated with

A. hypothyroidism.
B. hyperadrenalism.
C. hypogonadism.
D. pituitary adenoma.
E. hyperparathyroidism.

Decreased size or obliteration of pulp chambers and canals is diagnostic of

A. Hand-Schuller-Christian disease.
B. cleidocranial dysplasia.
C. amelogenesis imperfecta.
D. osteogenesis imperfecta.

What are the purposes of using occlusal splints?

1. To change the pattern and degree of tactile afferent neural impulses.
2. To immobilize teeth.
3. To prevent teeth from disturbing occlusal sensory input.
4. To produce a permanent change in the occlusion.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A Class II Division I malocclusion can be differentiated from a Class II Division II malocclusion based upon the

A. molar relationship.
B. severity of the Class II malocclusion.
C. amount of overbite.
D. inclination of maxillary incisors.
E. amount of crowding present.
A patient has a displaced right subcondylar fracture of the mandible. On opening, the mandible deflects to the right. Which muscle is prevented from functioning appropriately?

A. Medial pterygoid.
B. Temporalis.
C. Masseter.
D. Lateral pterygoid.

Excessively dark radiographs will result from

A. underdevelopment.
B. overexposure.
C. backward placement of the film.
D. too little milliamperage.

Migration of the permanent maxillary first molar following the premature loss of the primary second molar is usually mesial with

A. the mesiobuccal cusp rotating lingually.
B. the mesiobuccal cusp rotating buccally.
C. buccal tilt of the crown.

It may be possible to prepare a tooth for a restoration without anesthesia in an elderly patient due to an increase in

A. the number of pulp stones found in first molars with advancing age.
B. the deposition of secondary and tertiary dentin.
C. hypercementosis.
D. neurotransmitters in pulpal tissues.

Tetracycline will cause dentin discolouration when ingested at the age of

1. 6 months in utero.
2. 2 years.
3. 7 years.
4. 14 years.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.
The most frequent location of a dentigerous cyst is the
A. third molar area.
B. symphysis of the mandible.
C. midline of the hard palate.
D. apical area of a devitalized tooth.
E. premolar area.

In order to achieve a proper interproximal contact when using a spherical alloy, which of the following is/are essential?
1. A larger sized condenser.
2. A thinner matrix band.
3. A properly placed wedge.
4. Use of mechanical condensation.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Dysplastic lesions of squamous epithelium occur most often on the
A. palate.
B. gingiva.
C. buccal mucosa.
D. dorsum of the tongue.
E. floor of the mouth.

Residual soft tissue interdental craters not associated with underlying bony changes are eliminated by
A. root planing.
B. subgingival curettage.
C. flap operation.
D. gingivoplasty.
E. None of the above.

Oral foci of infection are of greatest concern in patients with which of the following conditions?
A. Type 2 diabetes.
B. Iron deficiency anemia.
C. Hypertension.
D. Rheumatic heart disease.

Cephalometrics is used in orthodontics to
A. treat malocclusions.
B. study growth changes.
C. aid in diagnosis and case analysis.
D. B. and C.
E. All of the above.

Biocompatibility tests conducted in vitro
A. follow screening with an animal model.
B. predict human cell growth or death.
C. reproduce the in vivo environment.
D. are more easily standardized than clinical studies.

Which of the following is an or can oral clinical sign(s) of leukemia?
A. Swollen soft gingiva.
B. Ulceration.
C. Tissue pallor.
D. All of the above.

Which of the following lesions is most commonly found in the anterior region of the mandible?
A. Ameloblastoma.
B. Calcifying epithelial odontogenic tumour (Pindborg tumour).
C. Central cementifying fibroma.
D. Periapical osseous dysplasia.

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Sclerotic dentin is
A. soft.
B. hypersensitive.
C. resistant to caries.
D. injurious to the pulp.

Secondary dentin formation may be stimulated by
A. pulp necrosis.
B. fluorosis.
C. attrition.
D. vitamin D therapy.

A furcation involvement in which the probe extends completely through the furcation is classified as
A. incipient.
B. Class I.
C. Class II.
D. Class III.

Spontaneous hemorrhage from the gingiva may be indicative of
A. parotitis.
B. Hodgkin's disease.
C. diabetes.
D. leukemia.

During the fabrication of a removable complete denture, block out and relief is placed on the
A. diagnostic cast.
B. master cast.
C. refractory cast.
D. remount cast.

A 55 year old patient provides a history of squamous cell carcinoma of the oral cavity diagnosed 5 years ago. His medical management involved ablative surgery, chemotherapy and intensity-modulated radiotherapy (IMRT) of 65 Gy which included the mandible. The extraction of tooth number 3.7 with local anesthesia is planned because of advanced dental caries. The tooth is not restorable. The most appropriate management should include
A. transfusion with packed red blood cells.
B. hyperbaric oxygen treatment prior to tooth extraction.
C. hyperbaric oxygen treatment prior to and following tooth extraction.
D. recommending root canal treatment rather than extraction.
E. using local anesthetic with high epinephrine concentration.

The most common clinical finding in the diagnosis of an acute periapical abscess is
A. mobility of the tooth.
B. pain on percussion.
C. discoloration of the crown.
D. presence of a cellulitis.
E. lymph node enlargement.
A 70 year old female has consumed optimal levels of fluorides all her life. She could be expected to have a reduced incidence of which of the following?

A. Paget’s disease.
B. Dental caries.
C. Osteoporosis.
D. Hyperparathyroidism.

The muscles used when closing the jaws to maximum intercuspation include

A. medial and lateral pterygoids, masseter.
B. temporalis, medial pterygoid, masseter, geniohyoid.
C. medial pterygoid, temporalis, masseter.
D. lateral pterygoid, masseter, temporalis, geniohyoid.

When closing a diastema with direct composite, care must be taken to ensure that

A. only supragingival enamel is etched.
B. primer is used to increase bond strength.
C. glass-ionomer cement is used subgingivally.
D. interproximal gingiva is adequately retracted.

Between the ages of 6 and 12, the length of the mandibular arch from the permanent left first molar to the permanent right first molar will normally

A. increase with the eruption of the permanent canines.
B. increase with eruption of the premolars.
C. remain the same.
D. decrease with the eruption of the permanent incisors.
E. decrease with the eruption of the premolars.

Apicoectomy is CONTRAINDICATED when

A. periodontal disease causes inadequate bony support.
B. there is a granuloma at the apex of the tooth.
C. more than one tooth is involved.
D. the cortical plate is more than 4mm thick.
E. the patient is diabetic.

Facial nerve paresthesia is most likely to occur from which of the following injections?

A. Posterior superior alveolar block.
B. Inferior alveolar block.
C. Posterior palatine block.
D. Extraoral maxillary division block.
The most appropriate treatment for a permanent molar with occlusal caries confined to enamel is a/an
A. amalgam.
B. composite resin.
C. fluoride varnish application.
D. preventive resin restoration.

A rubber dam in which there is leakage interproximally most likely has
A. holes punched too far apart.
B. holes punched too close together.
C. too broad a rubber dam arch form.
D. too much tension on the rubber dam holder.

A patient presenting with diplopia, exophthalmos, nasal bleeding and swelling, may suffer from a fracture of the
A. neck of the condyle.
B. body of the mandible.
C. zygomatic bone.
D. maxillary tuberosity.

The extension of the lingual anterior border of a mandibular denture is limited by the
A. mylohyoid muscle.
B. geniohyoid muscle.
C. genioglossus muscle.
D. fibres of the digastric muscle.

The inferior border of the lingual bar of a removable partial denture should
A. displace the lingual frenum.
B. be in contact with the cingula of the incisor teeth.
C. be superior to the gingival border.
D. be as inferior as the movement of the frenum of the tongue will permit.

A patient has suffered a blow resulting in the loosening of three maxillary incisors. Vitality tests give negative readings. The most appropriate management would be to
A. perform pulpectomies on the teeth.
B. remove the teeth, fill the root canals and replant.
C. splint the teeth, check vitality in one month and if negative, treat endodontically.
D. splint the teeth and treat endodontically immediately.

The occlusal parameter most likely associated with maxillary anterior spacing is a/an
A. Class II, division 2 dental malocclusion.
B. Class III skeletal malocclusion.
C. accentuated maxillary curve of Wilson.
D. reverse maxillary curve of Wilson.

Which of the following is/are vital signs?
1. Blood pressure.
2. Body temperature.
3. Pulse and respiratory rate.
4. Pupil size.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

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A metal in the wrought condition differs from the same metal in the cast condition in that

A. the grains are deformed and elongated.
B. the yield strength and hardness are increased.
C. if heated sufficiently, recrystallization can occur.
D. All of the above.

The success of replantation of an avulsed tooth is dependent upon

A. length of time between avulsion and replantation.
B. completion of endodontic therapy before replantation.
C. immersing the tooth in fluoride solution before replantation.
D. using calcium hydroxide as a treatment root canal filling.

A patient is not able to close her left eye, wrinkle her forehead or smile on the left side. The most likely diagnosis is

A. contralateral subarachnoid hemorrhage.
B. fracture of the base of the skull.
C. Horner's syndrome.
D. acute mastoiditis.
E. facial nerve paralysis.

A vital canine is to be used as the anterior abutment of a four unit fixed partial denture and it has 2.0mm remaining coronal tooth structure. The most acceptable foundation restoration would be

A. bonded amalgam core build-up.
B. a pin retained amalgam core build-up.
C. a pin retained composite resin core build-up.
D. intentional devitalization followed by a post and core restoration.

When using the periodontal probe to measure pocket depth, the measurement is taken from the

A. base of the pocket to the cementoenamel junction.
B. free gingival margin to the cementoenamel junction.
C. base of the pocket to the crest of the free gingiva.
D. base of the pocket to the mucogingival junction.

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A healthy 38 year old has a 4mm in diameter, well defined radiolucency at the apex of tooth 4.1. The tooth has a normal response to vitality tests. The most appropriate management is

A. incision and drainage.
B. extraction.
C. observation.
D. apicoectomy.
E. open the tooth for drainage.

Post-immunization serological test results for a health care worker who has completed the series of vaccinations against hepatitis B is informed that their anti-HBsAg is less than the value required for immunity. The health care worker should

A. receive one additional vaccination followed by post-immunization testing.
B. undergo the full series of hepatitis B vaccinations followed by post-immunization testing.
C. refrain from performing any exposure-prone procedures for a period of 3-6 months followed by a full series of hepatitis B vaccinations.
D. have liver function tests performed to assess liver damage from a previous hepatitis B infection.

For which of the following malocclusions is serial extraction indicated?

A. Class I.
B. Class II.
C. Class III.
D. None of the above.

A 50 year old female reports having intravenously administered bisphosphonate for the past 3 years. She now has an area of exposed necrotic bone with sharp edges in an edentulous maxilla. The most appropriate management is to perform

A. minimal surgical debridement immediately.
B. aggressive surgical debridement immediately.
C. minimal surgical debridement after delaying 3 months.
D. aggressive surgical debridement after delaying 3 months.

Two weeks following the placement of a restoration, a patient complains of pain to hot and cold in the restored tooth. The most likely diagnosis is

A. galvanic shock.
B. reversible pulpitis.
C. gingival irritation.

Impression trays should be

A. rigid.
B. flexible enough to permit easy insertion.
C. carefully polished on the interior.
D. held in place by the patient.

Which of the following types of bone contain the insertions of the periodontal ligament fibres?

A. Woven.
B. Bundle.
C. Lamellar.
D. Cortical.
The residual mercury content of the amalgam restoration is significantly affected by
A. cavity outline.
B. amount of amalgam used.
C. condensation technique.
D. carving technique.

The protective role of junctional epithelium is aided by its increased number of
A. cell layers.
B. intercellular spaces.
C. cell-cell adhesions.
D. collagen fibres.

Radiographic examination of an intruded primary maxillary central incisor reveals no root fracture. The most appropriate management would be to
A. extract the tooth.
B. bring the tooth into position and ligate it.
C. observe periodically.
D. remove the tooth and replant it in a more favorable position.

If a person falls from a bicycle, striking the chin, the most likely region(s) of the mandible to fracture is/are:
1. Symphysis.
2. Condylar necks.
3. Mid-body.
4. Angles of the mandible.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Wettability is NOT a desirable property for which of the following?
A. Dental impression materials.
B. Acrylic resin for denture bases.
C. Uncured composite resins.
D. Hand instruments for placing resins.
E. Trituration of amalgam.

Orthodontic tooth movement is generally more efficient with adolescents than in adults because of the difference in
1. tissue/bone reaction.
2. the rate of growth.
3. the quality of cooperation.
4. the crown/root ratio.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

In a normally developing occlusion, spaces between primary incisors are called
A. physiological spaces.
B. primate spaces.
C. leeway spaces.
D. freeway spaces.

Which class of drugs does NOT have analgesic effects?
A. Anticholinergics.
B. Antidepressants.
C. Anticonvulsants.
D. Salicylates.

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Gingivectomy is recommended
A. when the bottom of the pocket is apical to the mucogingival junction.
B. to eliminate the suprabony pockets when the pocket wall is fibrous and firm.
C. to treat moderately deep pockets with mild intrabony defects.

A decrease of which of the following is indicative of hypoparathyroidism?
A. Serum phosphorus.
B. Serum calcium.
C. Thyroid activity.
D. Serum alkaline phosphatase.

Which of the following will impede healing following the surgical closure of an oroantral fistula?
1. Poor flap design.
2. Excessive tissue tension.
3. Blowing the nose.
4. Sinus infection.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

On a bite-wing radiograph of posterior teeth, which of the following is most likely to be misdiagnosed as proximal caries?
A. Cemento-enamel junction.
B. Marginal ridge.
C. Carabelli cusp.
D. Calculus.
E. Cemental tear.

The most significant factor in the predictable correction of an anterior crossbite is the
A. patient age.
B. overbite.
C. tooth shape.
D. mesio-distal spacing.

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Which of the following epithelial changes is most likely to be precancerous?

A. Acanthosis.
B. Hyperkeratosis.
C. Parakeratosis.
D. Dysplasia.

The antibiotic of choice for a periradicular dental abscess is

A. penicillin V.
B. cephalosporin.
C. erythromycin.
D. metronidazole.
E. ampicillin.

Which of the following muscles has two separate functions in mandibular movement?

A. Masseter.
B. Geniohyoid.
C. External (lateral) pterygoid.
D. Buccinator.

The smear layer created by root canal instrumentation can be removed by

A. hydrogen peroxide and ethyl chloride.
B. sodium hypochlorite and EDTA.
C. chlorhexidine and chloroform.
D. calcium hydroxide and phenol.

The masseter muscle originates from the

A. angle of the mandible.
B. coronoid process.
C. pterygoid fossa.
D. zygomatic arch.

A well circumscribed 3mm radiolucency in the apical region of the mandibular second premolar may be

1. a periapical granuloma.
2. a periapical cyst.
3. a chronic periapical abscess.
4. the mental foramen.

Which of the following is NOT associated with cancer chemotherapy in an adult?

A. Candida infection.
B. Gingival bleeding.
C. Enamel staining.
D. Dysgeusia.

The primary stimulus for growth of the mandible is

A. genetic.
B. epigenetic.
C. environmental.
D. functional.
E. A. and D.

General anesthetics can do all of the following EXCEPT

A. produce delirium.
B. stimulate medullary centers.
C. produce a state of unconsciousness.
D. reduce perception of painful stimuli.
E. decrease excitability of the motor cortex.

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Veillonella species in supragingival plaque

A. act symbiotically with *S. mutans* to decrease pH and promote caries activity.
B. convert lactate to acetic and propionic acid.
C. enhance the progression of caries by metabolizing sucrose.
D. act as pioneer microorganisms in the development of plaque.

Drug-induced gingival overgrowth will most likely occur on the interdental papillae of which area?

A. Anterior palate.
B. Posterior palate.
C. Anterior labial.
D. Posterior buccal.

An odour of acetone on the breath may indicate

1. bronchiectasis.
2. rhinitis.
3. salicylate poisoning.
4. diabetes mellitus.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

In the mandible, the main growth site is in the

A. gonial angle.
B. condylar cartilage.
C. posterior border of the ramus.
D. inferior and lateral aspects of the body of the mandible.

The pain associated with pulpitis often disappears when a patient visits a dental office. This occurs due to which of the following events?

A. Stress-induced sympathetic activity inhibits pulpal sensory fibres that cause pain.
B. Stress-induced sympathetic activity causes vasodilatation of pulpal blood vessels.
C. Local mediators of pulpal pain are not released when a stress-induced rise in blood pressure occurs.
D. Pulpal pain receptors undergo fatigue.

Patients who have been prescribed an acetaminophen/codeine combination must be advised

A. to complete the prescribed medication.
B. that it can cause diarrhea.
C. that it can cause hypertension.
D. to avoid consuming alcohol.

The benefits of flap curettage include

A. direct access for thorough debridement.
B. pocket reduction.
C. increased opportunity for reattachment.
D. A. and B.
E. All of the above.

Which of the following does NOT need to be considered when assessing whether exposure of bodily fluids to a dental health care personnel is significant?

A. Patient’s gender.
B. Type of bodily fluid.
C. Infectious disease status of the patient.
D. Amount of bodily fluid involved in the injury.

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The highest risk of radiation-induced congenital organ deformity occurs during the
A. first trimester.
B. second trimester.
C. third trimester.
D. neonatal period.

Which of the following factors influence(s) the development of root caries?
1. A diet high in refined carbohydrates.
2. Periodontal disease.
3. The anatomy of the cemento-enamel junction.
4. Xerostomia.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The extraction of a primary maxillary central incisor at the age of 6 years will cause
A. loss of intercanine space.
B. increased intercanine space.
C. no change in intercanine space.
D. decreased overjet.

Which of the following nerves are anesthetized by an infraorbital nerve block?
1. Palpebral.
2. Lateral nasal.
3. Labial.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A 74 year old patient being treated for hypertension requires deep scaling using local anesthesia. It is appropriate to defer treatment if the patient’s blood pressure is equal to or above
A. 120/80.
B. 140/90.
C. 160/110.
D. 180/110.

A 25 year old female in her third trimester of pregnancy presents with an acute dental infection. Which of the following is CONTRAINDIATED for this patient?
A. Prescription of clindamycin.
B. Prescription of penicillin V.
C. Extraction using 2% lidocaine with 1:100,000 epinephrine.
D. Prescription of ibuprofen.

Which of the following is/are associated with the presence of microorganisms in the bloodstream?
A. Anachoresis.
B. Cavernous sinus thrombosis.
C. Bacteremia.
D. All of the above.

During the administration of local anesthesia, an intravascular injection will occur most often in a/an
A. incisive block.
B. posterior superior alveolar block.
C. inferior alveolar block.
D. anterior superior alveolar block.
E. long buccal block.

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An ameloblastoma is most frequently found in
A. the anterior region of the maxilla.
B. the mandible, near the junction of the body and the ramus.
C. the posterior region of the maxilla.
D. in the anterior region of the mandible near the midline.

Overcontouring in the gingival third of a provisional restoration contributes to the
A. retention of the provisional restoration.
B. accumulation of plaque and gingival inflammation.
C. displacement of the gingiva for future impression making.
D. marginal integrity of the provisional restoration.

The most important objective of occlusal adjustment of a natural dentition is to
A. prevent temporomandibular joint syndrome.
B. increase the shearing action in mastication.
C. improve oral hygiene by preventing food impaction.
D. achieve a more favorable direction and distribution of forces of occlusion.

The most appropriate treatment for a child with a primary tooth that caused a severe, throbbing toothache the previous night is
A. analgesics.
B. antibiotic therapy.
C. removal of caries and placement of a sedative restoration.
D. pulpotomy with calcium hydroxide.
E. extraction of the tooth.

The need to frequently replace intact orthodontic elastics is a direct consequence of
A. creep.
B. low modulus.
C. stress relaxation.
D. high ductility.

In the bisecting angle principle of intraoral radiography, the radiopacity that can obliterate the apices of maxillary molars is the
A. maxillary sinus.
B. palatine bone and the zygoma.
C. orbital process of the zygomatic bone.
D. zygoma and the zygomatic process of the maxilla.

A lower molar requiring a crown has an amalgam restoration extending 1.0 mm subgingivally. The crown margin should be placed
A. on the existing amalgam.
B. at the amalgam/tooth junction.
C. 1mm apical to the amalgam margin.
D. 2mm apical to the amalgam margin.

Which of the following is the most probable postoperative complication of intracoronal bleaching a tooth that has not been adequately obturated?
A. Fracture.
B. Discolouration.
C. Retrograde pulpitis.
D. Acute apical periodontitis.
E. External cervical root resorption.
Which of the following can result in post-developmental jaw growth?

A. Hyperparathyroidism.
B. Hyperthyroidism.
C. Adult hypothyroidism.
D. Osteitis deformans (Paget’s).
E. Hypoparathyroidism.

Which of the following is/are essential when using spherical rather than admix alloy for a routine amalgam restoration?

1. a larger diameter condenser.
2. an anatomical wedge.
3. decreased condensing pressure.
4. a dead soft matrix band.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Proper lip support for a maxillary complete denture is provided primarily by which of the following?

A. Labial surface of the teeth and simulated gingiva.
B. Thickness of the border in the vestibule.
C. Festooned carvings on the labial surface of the simulated gingiva.
D. Convex surface of the labial flange.

The most appropriate vertical angulation to make a bite-wing radiograph in the primary dentition is

A. –10°.
B. –5°.
C. 0°.
D. +5°.
E. +10°.

The etiology of erosion of the teeth is

A. unknown.
B. hyperacidity of the saliva.
C. deficiency of vitamins A and D.
D. excessive ingestion of citrus fruits.

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When gypsum is mixed with water and sets to form a dental cast, the powder particles are replaced by crystals of

A. potassium sulfate.
B. potassium phosphate.
C. calcium sulfate.
D. trisodium phosphate.

A facebow is used to record the
1. vertical dimension of occlusion.
2. inter-occlusal relationship.
3. horizontal condylar inclination.
4. relationship of the maxilla to the hinge axis.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only.
E. All of the above.

Xerostomia can be
1. found in the elderly.
2. drug induced.
3. associated with diabetes.
4. predisposing to dental diseases.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only.
E. All of the above.

Zinc phosphate cement, when used as a luting agent for cast restorations, has which of the following properties?

1. Insolubility.
2. Anticariogenicity.
3. Chemical adhesion.
4. Mechanical retention.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following has the POOREST prognosis?

A. Gingival tissue with edematous red interdental papillae.
B. Gingival tissue with 1mm pocket labial to a mandibular incisor.
C. Firm gingival tissue with generalized 5 and 6mm pockets.
D. Class II furcation involvement in maxillary molars.

A 5 year old child is diagnosed with leukocyte adherence deficiency and is also affected with generalized severe bone loss adjacent to his primary teeth. What is the diagnosis?

A. Generalized aggressive periodontitis.
B. Generalized chronic periodontitis.
C. Gingival diseases modified by systemic factors.
D. Periodontitis as a manifestation of systemic disease.

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In periodontal surgery, it is important to determine the position of the base of the pocket to the

A. cemento-enamel junction.
B. tip of the inter-dental papilla.
C. furcation.
D. mucogingival junction.

Which of the following will increase the flexibility of a removable partial denture clasp arm?

A. Increasing the length.
B. Increasing the diameter.
C. Decreasing the taper.
D. Decreasing the retentive undercut.

The labial/buccal attached gingiva on permanent teeth is normally widest at the

A. mandibular canines.
B. maxillary premolars.
C. mandibular premolars.
D. maxillary lateral incisors.

Non-steroidal anti-inflammatory drugs, such as Ketoralac (Toradol™), are beneficial in the treatment of periodontal disease because they

A. act as analgesic agents.
B. stimulate cyclo-oxygenase activity.
C. reduce prostaglandin E₂ synthesis.
D. promote wound healing.

A patient with congestive heart failure may have

1. epistaxis.
2. shortness of breath.
3. exophthalmos.
4. pitting edema of the ankles.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Correction of an inadequate zone of attached gingiva on several adjacent teeth is best accomplished with a/an

A. apically repositioned flap.
B. laterally positioned sliding flap.
C. double-papilla pedicle graft.
D. coronally positioned flap.
E. free gingival graft.

In an infection caused by non-penicillinase producing staphylococcus, the drug of choice is

A. penicillin V.
B. cephalexin.
C. tetracycline.
D. vancomycin.

A magenta-coloured tongue and angular cheilitis may be associated with a deficiency of

A. ascorbic acid.
B. niacin.
C. riboflavin.
D. thiamine.

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Which of the following is/are common to both gingival and periodontal pockets?

1. Apical migration of junctional epithelium.
2. Fibrotic enlargement of marginal tissue.
3. Bleeding upon probing.
4. Increased depth upon probing.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following modifications to the standard procedure for mixing gypsum products will increase the compressive strength of the set material?

A. Adding a small amount of salt to the water before mixing.
B. Decreasing the water/powder ratio by a small amount.
C. Using warmer water.
D. Decreasing the mixing time.

The benign neoplasm that originates from squamous epithelium is called a/an

A. adenoma.
B. choriocarcinoma.
C. chondroma.
D. lipoma.
E. papilloma.

A primordial cyst

A. develops in place of a tooth.
B. attaches to the apex of a tooth.
C. attaches to the crown of a tooth.
D. remains after the tooth is extracted.

The anticariogenic effect of systemic fluoride is related principally to the

A. bactericidal action on oral flora.
B. bacteriostatic action on oral flora.
C. buffering effect on acids produced by cariogenic bacteria.
D. alteration in the composition of the enamel.

The most radiosensitive salivary gland is the

A. sublingual.
B. submandibular.
C. parotid.

While the teeth are set in wax, dentures are tried in to

A. verify the maxillomandibular records.
B. verify the vertical dimension of occlusion.
C. evaluate esthetics.
D. All of the above.

Following extraction of teeth, root fragments can be left in place when

A. there is no plan to place a dental implant in the site.
B. the root is small, not infected and located deep in the bone.
C. the maxillary sinus is pneumatized and close to the tooth roots.
D. the root fragment is mobile and no more than 7-8mm in length.

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Hydroxyapatite

1. can be used to eliminate osseous undercuts.
2. is derived from coral.
3. is biocompatible.
4. is resistant to fracture.
5. is osteogenic.

A. (1) (3) (5)
B. (1) (2) (3)
C. (2) (4) (5)
D. All of the above.

Which of the following conditions is most likely to result in new periosteal bone formation?

A. Fibrous dysplasia.
B. Paget’s disease of bone.
C. Chronic osteomyelitis.
D. Hyperparathyroidism.

A. Procaine is a local anaesthetic which is chemically classified as an
   A. amide.
   B. ester.
   C. aldehyde.
   D. ethamine.
   E. aminide.

Metallic salts are included in root canal sealers to make the sealers
A. set more firmly.
B. be radiopaque.
C. set more rapidly.
D. be tolerated by periapical tissues.

In a fully erupted tooth with a healthy periodontium, the apical end of the junctional epithelium is located

A. in the cervical third of the crown.
B. at the cemento-enamel junction.
C. 1.5mm below the cemento-enamel junction.
D. in the cervical third of the root.

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The greatest dimensional change in denture bases will occur

A. after the dentures have been in the mouth 24-hours.
B. when the dentures have been stored in tap water at room temperature.
C. when a complete denture opposes natural teeth.
D. at the time the dentures are removed from the flask.

A characteristic of the periodontium which allows safe temporary separation of the teeth is the

A. nature of acellular cementum.
B. elasticity of bone.
C. modified continuous eruption of the teeth.
D. passive eruption.

2mm of maxillary incisor spacing in a 3 year old is indicative of a

A. tooth size-arch size discrepancy.
B. maxillary Bolton deficiency.
C. persistent tongue habit.
D. normal pattern of development.

The percent of elderly persons known to colonize asymptomatic *C. difficile* in the gut is typically in a range of up to

A. 3%.
B. 10%.
C. 30%.
D. 50%.

The earliest clinical sign of gingivitis is

A. increased tooth mobility.
B. bleeding on probing.
C. change in color of the attached gingiva.
D. change in consistency of the attached gingiva.

The chief mechanism by which the body metabolizes short-acting barbiturates is

A. oxidation.
B. reduction.
C. hydroxylation and oxidation.
D. sequestration in the body fats.

Which one of the following tests is used to confirm the presence of an acute infection?

A. Erythrocyte sedimentation rate.
B. Urinalysis.
C. Differential white cell count.
D. Serum alkaline phosphatase.

Biopsy of a recent solitary painless ulcer on the lip in a 20 year old patient shows the presence of *Treponema pallidum*. The ulcer is called (a)

A. lupus vulgaris.
B. facies leprosa.
C. chancre.
D. noma.

Thumbsucking does NOT usually affect the permanent dentition if the habit is

A. discontinued before four years of age.
B. discontinued before eight years of age.
C. associated with sleeping.
D. is of low intensity.

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The physiopathology of sleep apnea is most likely related to

A. excessive oropharyngeal muscular tonus during sleep.
B. central nervous system respiratory depression.
C. obstruction in lower airways.
D. a severe Angle Class III malocclusion.

Space closure is LEAST LIKELY to occur following the loss of the deciduous

A. mandibular canine.
B. maxillary first molar.
C. mandibular second molar.
D. maxillary central incisor.

Guiding planes on abutment teeth for a removable partial denture should be prepared before the occlusal rests are prepared in order to

A. avoid post-insertion adjustment.
B. facilitate surveying of the cast.
C. improve the retention of the direct retainer assembly.
D. finalize the location of the occlusal rest.
E. minimize the preparation needed for the occlusal rests.

The most common complaint of a patient with chronic marginal gingivitis is

A. bleeding on brushing.
B. painful gums.
C. changes in the shape of the gingiva.
D. bad breath.

The chemical that is used to retard the setting reaction in alginate impression materials is

A. calcium sulfate.
B. sodium sulfate.
C. calcium phosphate.
D. sodium phosphate.

The tissue which is most sensitive to radiation is

A. nerve.
B. dental pulp.
C. lymphoid.
D. muscle.

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A measure of the stiffness of a dental gold alloy is expressed as its:

A. proportional limit.
B. modulus of elasticity.
C. ultimate tensile strength.
D. flow.

What is the name of the process by which carbamide peroxide bleaches the teeth?

A. Oxidation.
B. Addition.
C. Subtraction.
D. Hydrogenation.

The Bass tooth brushing technique is appropriate for oral hygiene instruction because:

A. plaque beneath the gingival margin is removed.
B. debris is forced from the embrasures.
C. the horizontal, vertical and circular motions.
D. it increases circulation to the gingiva.

In clinically normal gingiva, the distance between the bottom of the sulcus and the alveolar crest is:

A. 0.5-1mm.
B. 1.5-2mm.
C. 3-5mm.
D. None of the above.

During a normal chewing cycle, which of the following has/have maximum EMG activity when the teeth are in maximum intercuspation?

1. Medial pterygoid muscles.
2. Masseter muscles.
3. Lateral pterygoid muscles.
4. Digastric muscles.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The most important diagnostic element in assessing the periodontal status of a patient is the:

A. results of vitality testing.
B. depth of periodontal pockets.
C. mobility of the teeth.

An occluded submandibular duct can be diagnosed by:

A. history.
B. palpation.
C. sialography.
D. occlusal radiographs.
E. All of the above.

Centric relation is a:

A. relation of the maxilla to the rest of the skull.
B. vertical relationship of the mandible to the maxilla.
C. horizontal relationship of the mandible to the maxilla.
D. rest position of the mandible.

Selection of the appropriate kilovoltage for dental films is influenced by:

A. line voltage fluctuation.
B. diameter of the primary beam of radiation.
C. type of timer.
D. tissue density.
E. filter thickness.

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A child has received a successful inferior alveolar nerve block using 1.5ml of lidocaine 2% with 1:100000 epinephrine. However, during placement of a rubber dam clamp on the first permanent molar, the child complains that the “tooth ring” is hurting. Which of the following is the most appropriate management?

A. Wait 15 minutes until more profound anesthesia is achieved.
B. Anesthetize the lingual nerve with the remaining lidocaine.
C. Anesthetize the long buccal nerve with the remaining lidocaine.
D. Proceed with treatment without rubber dam.

Which of the following is the most important factor in the preoperative evaluation of a patient?

A. Medical history.
B. Laboratory data.
C. Electrocardiogram.
D. Pulse and blood pressure.

A patient had a coronary arterial stent placed 1 year ago following a myocardial infarction and has been asymptomatic since. The most appropriate management is to

A. avoid using epinephrine impregnated retraction cord.
B. use local anesthetics without epinephrine.
C. perform only emergency dental treatment for 1 year.
D. not recline the patient more than 45 degrees.
E. prescribe antibiotics to prevent infective endocarditis.

A facebow record provides an approximation of the

A. horizontal transverse axis and defines the position of the maxillary cast.
B. horizontal transverse axis and defines the position of the mandibular cast.
C. vertical axis and defines the position of the maxillary cast.
D. vertical axis and defines the position of the mandibular cast.

When compared to zinc phosphate cement, glass ionomer cement has a/an

A. lower solubility in oral fluids.
B. ability to release fluoride.
C. higher compressive strength.
D. lower film thickness.

Pontic design for a metal-ceramic bridge should

1. provide for a rigid restoration.
2. allow for complete coverage of the metal by the porcelain.
3. place the porcelain metal joint away from the soft tissues.
4. control thermal conductivity.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.
Which of the following cause sedation?

1. Triazolam.
2. Codeine.
3. Meperidine.
4. Ibuprofen.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Radiographically, a primordial cyst will show

A. mixed radiolucency and radiopacity.
B. a radiolucency around the crown of an impacted tooth.
C. a radiolucency containing multiple rudimentary teeth.
D. a radiolucency.
E. None of the above.

The Fluorosis Index is used to measure the

A. degree of protection offered against dental caries by fluoride supplements.
B. concentration of fluoride in public water supplies.
C. degree or severity of mottled enamel.
D. opposition to fluoridation by citizens' groups.
E. total amount of fluoride ingested.

A reciprocal clasp arm on a removable partial denture will provide

A. support.
B. indirect retention.
C. stabilization.
D. direct retention.

Which of the following features would be most indicative of a cracked tooth?

A. Periapical radiolucency.
B. Hypersensitivity to thermal stimuli.
C. Pain upon biting pressure.
D. Absent vitalometric response.

Typical history of a mucocele is

A. a slowly growing tumor mass.
B. a pain immediately before eating.
C. a trauma, swelling, rupture, disappearance, recurrence.
D. an ulcerated area on buccal mucosa.
E. frequent bleeding.

Which of the following has the highest rate of recurrence?

A. Odontogenic keratocyst.
B. Nasoalveolar cyst.
C. Median palatal cyst.
D. Incisive canal cyst.

Dentigerous cysts should be completely enucleated because

A. the epithelium of the cyst can degenerate and form toxic substances.
B. the epithelial lining of the cyst has the potential for neoplastic change.
C. the connective tissue of the cyst wall can become osteoblastic.
D. continued growth is likely to result in a supernumerary tooth.

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Among the following, which may be associated with root resorption?

1. Excessive orthodontic forces.
2. Periapical granuloma.
3. Cementoma.
4. Hypercementosis.
5. Traumatic injury.

A. (1) (2) (4)
B. (1) (2) (4) (5)
C. (1) (2) (5)
D. (1) (2) (3) (5)
E. All of the above.

Poor oral hygiene during orthodontic treatment may result in

1. edema.
2. bleeding.
3. loss of stippling.
4. gingival desquamation.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

All of the following drugs are useful in the treatment of cardiac arrhythmias EXCEPT

A. digitalis.
B. lidocaine.
C. procainamide.
D. aminophylline.

A rubber dam should be used in

A. pulp capping procedures.
B. amalgam placement.
C. composite placement.
D. removing carious dentin from deep lesions.
E. all of the above.

A differential diagnosis for gingival hyperplasia should include which of the following conditions?

A. Multiple myeloma.
B. Monocytic leukemia.
C. Erythema multiforme.
D. Pemphigus vulgaris.

Bioavailability of orally administered drugs may be influenced by

1. formulation of the drug.
2. gastrointestinal perfusion.
3. pH of the gastrointestinal tract.
4. presence of other substances in the gastrointestinal tract.

A. (1) (2) (3)
B. (1) and (2)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following analgesics can exacerbate peptic ulcers?

A. Acetaminophen.
B. Ibuprofen.
C. Codeine.
D. Tramadol.

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E. All of the above.

Which of the following analgesics can exacerbate peptic ulcers?

A. Acetaminophen.
B. Ibuprofen.
C. Codeine.
D. Tramadol.
Which of the following should be checked first when a cast gold crown that fits on its die cannot be seated on its abutment?

A. The occlusal contacts.
B. The taper of the preparation.
C. The proximal contacts.
D. The impression used to pour the cast.

Which of the following is a possible cause of an anterior crossbite?

A. An abnormal labial frenum.
B. A skeletal Angle Class II malocclusion.
C. Early loss of a primary maxillary canine.
D. Over-retention of a primary maxillary incisor.

A patient reports pain on mastication since the placement of a metal ceramic (porcelain fused to metal) crown 2 weeks earlier. The most likely cause is

A. hyperemia.
B. supraocclusion.
C. dentin hypersensitivity.
D. acute pulpitis.

The most appropriate treatment of a true combined endodontic-periodontal lesion is

A. periodontal surgical therapy only.
B. nonsurgical root canal therapy only.
C. periodontal surgical therapy before nonsurgical endodontic treatment.
D. nonsurgical root canal therapy before periodontal therapy.

For complete dentures, the most important factor affecting speech is the

A. reproduction of the palatal rugae.
B. position of the molar teeth.
C. position of the anterior teeth.
D. palatal thickness.

Irregularly distributed shallow to moderate craters in the interseptal bone are best eliminated by

A. osteoplasty.
B. gingivoplasty.
C. deep scaling.
D. bone grafting.

Advantages of resin bonded bridges are

1. tooth structure conservation.
2. short chair-side time.
3. lower cost for patient.
4. improved esthetics compared to traditional bridges.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Hutchinson’s incisors and mulberry molars are associated with

A. congenital porphyria.
B. fluorosis.
C. rickets.
D. congenital syphilis.
E. cleidocranial dysplasia.
A patient with new complete dentures complains of a burning sensation in the palate. The most likely area requiring relief is at the

A. frenum.  
B. post dam.  
C. incisive foramen.  
D. foveae palatinae.

Which of the following is best removed by curettage?

A. Ameloblastoma.  
B. Pleomorphic adenoma.  
C. Central giant cell granuloma.  
D. Squamous cell carcinoma.  
E. Cylindroma.

Leeway space is most efficiently maintained by a/an

A. lingual arch.  
B. tongue crib.  
C. anterior bite plate.  
D. functional appliance.

When a simple tipping force is applied to the crown of a single-rooted tooth, the centre of rotation is located

A. at the apex.  
B. at the cervical line.  
C. within the apical half of the root.  
D. within the cervical one third of the root.

After initiating preventive management for a 16 year old patient with multiple extensive carious lesions, which of the following restorative treatments is most appropriate?

A. Place amalgam restorations over the next few months.  
B. Excavate caries and place temporary restorations within the next few weeks.  
C. Delay any treatment until the hygiene improves.  
D. Restore all teeth with composite resin over the next few months.

The greatest single factor in reducing radiation exposure in dentistry is

A. higher kVp.  
B. proper filtration.  
C. high speed film.  
D. collimation of the X-ray beam.

Which of the following conditions should NOT commonly be treated during the mixed dentition stage?

A. Anterior cross-bite.  
B. Posterior cross-bite.  
C. Maxillary incisor rotation.  
D. Class II molar relationship.

To decrease abutment tooth sensitivity, a fixed bridge may be temporarily seated using

A. polycarboxylate cement.  
B. acrylic resin cement.  
C. zinc oxide eugenol cement.  
D. glass ionomer cement.

Hypothyroidism affects the dental developmental pattern by

A. interfering with jaw growth.  
B. delaying the eruption timetable.  
C. causing sclerotic bone to form over the occlusal surface of erupting teeth.  
D. accelerating the eruption timetable.

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Increased overjet, moderate facial convexity and a deep labio-mental sulcus is most characteristic of which facial type?

A. Prognathic.  
B. Orthognathic.  
C. Retrognathic.

What is the most likely diagnosis of a white, diffuse, wrinkled appearing lesion of the buccal mucosa which diminishes in prominence or disappears upon stretching?

A. Leukoedema.  
B. Lichen planus.  
C. Candidiasis.  
D. Linea alba.  
E. White sponge nevus.

Enamel hypoplasia, blunted roots and abnormal dentin are indicative of

A. hyperparathyroidism.  
B. hyperthyroidism.  
C. hypoparathyroidism.  
D. hypothyroidism.

Which oral mucosa changes are possible side effects of chemotherapy?

1. Atrophic thinning.  
2. Ulceration.  
3. Necrosis.  
4. Spontaneous bleeding.

A. (1) (2) (3)  
B. (1) and (3)  
C. (2) and (4)  
D. (4) only  
E. All of the above.

Gold contributes which of the following properties to a gold-copper alloy?

A. Corrosion resistance.  
B. Increased strength.  
C. Lowered specific gravity.  
D. Increased hardness.

Which oral mucosa changes are possible side effects of chemotherapy?

A. Codeine.  
B. Methadone.  
C. Naloxone.  
D. Pentazocine.  
E. Meperidine.

A fracture in an all ceramic crown may be caused by

1. inadequate ceramic thickness.  
2. sharp line angles in the tooth preparation.  
3. excessive occlusal load.  
4. use of an inappropriate luting material.

A. (1) (2) (3)  
B. (1) and (3)  
C. (2) and (4)  
D. (4) only  
E. All of the above.

Which of the following lesions is most likely to occur in the floor of the mouth?

A. Pleomorphic adenoma.  
B. Mucoepidermoid carcinoma.  
C. Lymphangioma.  
D. Ranula.  
E. Granular cell myoblastoma.

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Management of a “dry socket” should include

1. saline irrigation of the socket.
2. vigorous curettage of the socket.
3. placement of a dressing in the socket.
4. a prescription for antibiotics.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following has the largest effect on caries risk?

A. Type of desserts eaten with meals.
B. Total amount of sugar in the diet.
C. Frequency of fermentable carbohydrate intake.
D. Quality and range of nutrients in meals and snacks.

The statute of limitations states that the period during which an action in negligence against a dentist can be initiated starts when the

A. patient first meets the dentist.
B. treatment is rendered.
C. treatment is paid for.
D. patient first becomes aware of the problem.
E. patient seeks a second opinion about the problem.

The most accurate indicator of caries activity in root caries lesions is to

A. assess the colour.
B. evaluate the hardness.
C. use bitewing radiographs.
D. apply caries detector dyes.

It is ethical for a dentist in Canada to decline to treat a patient due to

A. a difference in religious beliefs.
B. the patient’s infectious status.
C. a patient being physically challenged.
D. a patient being mentally challenged.
E. the dentist’s lack of skill or knowledge.

Which of the following presents with high serum calcium levels, thinning of cortical bone and giant cell osteoclasts in the jaw and drifting teeth?

A. Hyperthyroidism.
B. Hyperparathyroidism.
C. Hypothyroidism.
D. Hypoparathyroidism.

Dentigerous cysts are usually found

A. periapically.
B. pericoronally.
C. interradicularly.
D. mid-root.

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One of the mechanisms of bacterial adherence to the dental pellicle is through

A. positively charged bacteria with the pellicle.
B. interaction of cations such as calcium.
C. hydrophilic interactions.
D. interaction of salivary anions.

The placement of a reverse curve in a Class II amalgam preparation aids in

A. retention form.
B. resistance form.
C. convenience form.
D. outline form.

Subgingival calculus contributes to periodontal disease because it

A. is rough.
B. harbours bacterial plaque.
C. irritates the tissue.
D. decomposes.

Which of the following nerves should be anesthetized for extraction of a maxillary lateral incisor?

1. Nasociliary.
2. Nasopalatine.
4. Anterior superior alveolar.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Clasps should be designed so that upon insertion or removal of a partial denture the reciprocal arms contact the abutment teeth when the retentive arms pass over the height of contour in order to

A. prevent distortion of the clasps.
B. assure complete seating of the framework.
C. provide needed support to abutment teeth during a period of added stress.

Polymerization shrinkage in a composite resin is reduced by

A. placing a glass ionomer liner on all exposed dentin before placing composite resin.
B. doubling the curing time of the resin in preparations that are deep.
C. using a flowable composite on the gingival floor of Class II preparations.
D. incremental placement of no more than 2mm thicknesses of composite resin.

Lidocaine (Xylocaine) is an example of a local anesthetic which is chemically classified as an

A. amide.
B. ester.
C. aldehyde.
D. ethamine.
E. aminide.

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What is the most likely diagnosis of a small well-circumscribed radioluency at the apex of a vital mandibular incisor?

A. a periapical granuloma.
B. sclerosing osteitis.
C. a radicular cyst.
D. periapical cemental dysplasia.

A 23 year old female complains of bilateral stiffness and soreness in the preauricular region. Her symptoms have been present for the past week and are most pronounced in the morning. The most likely cause is

A. fibrous ankylosis of the temporomandibular joints.
B. nocturnal bruxism.
C. early osteoarthritis.
D. mandibular subluxation.

The purpose of a temporary restoration in an anterior tooth is to

1. maintain aesthetics.
2. protect dentin and pulp.
3. prevent gingival inflammation and recession.
4. prevent tooth movement.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

In radiography, too high a temperature of the developer will cause increased

A. contrast.
B. density.
C. grayness.
D. resolution.

Chlorpromazine produces all of the following EXCEPT

A. photosensitivity.
B. excessive salivation.
C. anticholinergic effects.
D. antiadrenergic effects.

After initial setting, a chemically cured glass ionomer cement restoration should have a coating agent applied to

A. hasten the final set.
B. protect the cement from moisture.
C. retard the final set.
D. protect the cement from ultraviolet light.
E. create a smooth finish.

Which of the following is/are true statements about incision and drainage of an acute apical abscess?

1. A rubber dam drain may be placed and sutured to assist drainage.
2. The procedure is only indicated with a localized, fluctuant swelling.
3. Profound anesthesia of the surgical site is not always possible.
4. Relief of the pressure and pain is immediate after treatment.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The initial histological appearance of a successful apicectomy would show on a radiograph as

A. a radiolucent area.
B. woven bone.
C. cortical bone around surgical site.
D. sclerotic dentin.

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Which of the following clinical findings is NOT associated with combination (Kelly's) syndrome?

A. Reduction in morphologic face height.
B. Advanced anterior maxillary ridge resorption.
C. Down growth of the maxillary tuberosities.
D. Advanced alveolar bone resorption under the posterior partial denture base areas.

What is the most appropriate management of an ectopically erupting premolar with the primary predecessor firmly in place?

A. Natural exfoliation of the primary tooth.
B. Luxation of the primary tooth.
C. Extraction of the primary tooth and monitor.
D. Extraction of the primary tooth and space maintenance.

On a bite-wing radiograph, a smooth surface proximal carious lesion in enamel appears as a triangle with the

A. base at the dentino-enamel junction.
B. base facing toward the pulp.
C. apex pointing to the enamel surface.
D. apex pointing to the dentino-enamel junction.

The accuracy of the polysulfide and silicone rubber impression materials

A. is better than that of polyethers.
B. compares favorably with reversible hydrocolloids.
C. is inversely proportional to temperature and humidity.

A. osteoporosis.
B. a large intraosseous lesion.
C. an impacted tooth at the inferior border.
D. advanced alveolar atrophy.

The base of a distal extension partial denture should cover the maximum support area because

A. the force per unit area will be kept to a minimum.
B. maximum number of artificial teeth can be placed.
C. phonetics is improved.
D. strength of the base is increased.

A mandibular fracture during normal mastication is most likely to occur in a patient with

A. placed over firm bone where possible.
B. interrupted, 15mm apart.
C. firm enough to approximate tissue flaps without blanching.
D. tight enough to produce immediate hemostasis.

When sutures are used to reposition tissue over extraction sites, they should be

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

After root planing and plaque control instruction, a 22 year old patient still shows swollen and edematous gingiva with 3mm pockets and a 4 to 6mm band of attached gingiva. The most appropriate management is

A. an apically repositioned split thickness flap.
B. an apically repositioned full thickness flap.
C. gingivectomy.
D. further plaque control instruction.
E. occlusal adjustment.

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The most appropriate treatment of a true combined endodontic-periodontal lesion is

A. periodontal surgical therapy only.
B. nonsurgical root canal therapy only.
C. periodontal surgical therapy before nonsurgical endodontic treatment.
D. nonsurgical root canal therapy before periodontal therapy.

Subgingival calculus

A. accumulates predominantly on mandibular incisors and maxillary molars.
B. derives its dark colour from food and drinks.
C. is the cause of periodontitis.
D. is mineralized subgingival plaque.

Normal aging changes in the tooth tissues include

A. continuous deposition of cementum.
B. augmented dentin sensitivity.
C. increased porosity of enamel.

Which statement is FALSE regarding sodium hypochlorite when used as an irrigant?

A. It is used in 0.5% to 5.25% concentration.
B. Its combination with hydrogen peroxide does not improve its clinical effectiveness.
C. It is well tolerated if expressed beyond the tooth apex.
D. Warming the solution increases its clinical effectiveness.

The daily maximum dose of ibuprofen for an adult is

A. 1,200 mg.
B. 1,600 mg.
C. 2,000 mg.
D. 2,400 mg.

The choice and number of abutments for a fixed partial denture is influenced by the

1. length of the span of the fixed partial denture.
2. crown-root ratio of the abutments.
3. amount of periodontal support of the abutments.
4. position of the abutments in the arch.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following would maximize vitamin E intake following osseous surgery?

A. Lettuce.
B. Wheat germ.
C. Eggs.
D. Fish.

Propoxyphene has the potential for drug abuse because

A. it is a potent analgesic with a euphoriant activity equal to morphine.
B. in combination with alcohol its effects are greatly intensified.
C. it cannot be detected in the bloodstream.
In horizontal alveolar bone loss, the pathway of inflammation is

A. through the periodontal ligament.
B. through the epithelial attachment.
C. through the cortical bone of the alveolar process.
D. perivascularly, into the marrow spaces of the crestal bone.

The use of a reservoir on the sprue of a wax pattern decreases

A. volumetric changes in the casting.
B. casting porosity from inclusion of gases.
C. casting porosity from inclusion of foreign bodies.
D. casting porosity during solidification.

Metallic salts are included in root canal sealers to make the sealers

A. stronger.
B. radiopaque.
C. set more rapidly.
D. tolerated by periapical tissues.
E. bond to dentin.

A patient is in intense pain with a left hemifacial swelling, which is beginning to affect the eye. Examination reveals a fluctuant swelling over tooth 2.2, which has deep caries, and is tender to palpation and percussion. The most likely diagnosis is

A. acute periradicular periodontitis.
B. chronic periradicular periodontitis.
C. acute periradicular abscess.
D. chronic periradicular abscess.

The location of a crown margin is determined by

1. esthetic requirements.
2. clinical crown length.
3. presence of caries.
4. presence of an existing restoration.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following is the most appropriate management for a well-controlled, type 1 diabetic patient?

A. Afternoon appointments should be scheduled.
B. Insulin should be increased to offset the length of the appointment.
C. A medical consult is required prior to treatment.
D. The patient should follow normal dietary and insulin regimen.

Elevated serum parathyroid hormone levels result in Ca$^{2+}$ being released from bone through receptor-mediated actions on

A. osteoclasts.
B. osteoblasts.
C. osteocytes.
D. chondroblasts.

The material of choice for obturating the root canal system of a primary tooth is

A. silver cone.
B. gutta percha.
C. zinc-oxide eugenol.
D. paper point medicated with formocresol.
E. zinc oxyphosphate.

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What are the anticipated orthodontic side effects when uprighting a mesially tipped mandibular second molar with fixed appliances?

1. Extrusion of the second mandibular molar.
2. Lingual tipping of the second molar.
3. Intrusion of the buccal segment.
4. Buccal tipping of the buccal segment.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Mottled enamel is associated with

A. regional odontodysplasia.
B. fluorosis.
C. amelogenesis imperfecta.
D. tetracycline therapy.

Extraction of a tooth is CONTRAINDIATED in the dental office for a patient who

1. is 4 months pregnant.
2. has a Factor~VIII deficiency.
3. has a cavernous hemangioma adjacent to the tooth.
4. is hypothyroid.
5. had a myocardial infarct two months ago.

A. (1) (2) (4)
B. (2) (3) (4)
C. (2) (3) (5)
D. (1) (3) (5)

The form of hepatitis that poses the greatest risk of transmission from patient to dental health care worker is

A. hepatitis A.
B. hepatitis B.
C. hepatitis C.
D. hepatitis D.

A patient with leukoplakia had an incisional biopsy. Which of the following diagnosis does NOT require complete excision?

A. Carcinoma in situ.
B. Severe epithelial dysplasia.
C. Hyperkeratosis.
D. Invasive carcinoma.

Mottled enamel is associated with

An 18 year old patient presents with painful, punched-out depressions at the crest of the interdental papillae. The gingival craters are grey in appearance and the tissues are sloughing. Initial management should include debridement, analgesics and

A. metronidazole.
B. ketoconazole.
C. acyclovir.

Sterilization of carious dentin without pulp injury is assured by the application of

A. phenol.
B. 70% ethyl alcohol.
C. chlorhexidine.
D. absolute alcohol.
E. None of the above.
Ideal orthodontic tooth movement

A. should use large forces to move teeth as quickly and efficiently as possible.
B. occurs with undermining resorption to remove bone.
C. occurs using frontal resorption with deposition and resorption processes.
D. requires subcrestal surgical incisions.

Indirect retention is required for a removable partial denture which has

1. a unilateral distal extension base.
2. bilateral distal extension bases.
3. an anterior extension base.
4. complete tooth support.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Five years ago, a 55 year old patient was treated for squamous cell carcinoma of the oral cavity with ablative surgery, chemotherapy and intensity-modulated radiotherapy. The posterior mandible received a dose of 70 Gy. The extraction of tooth 3.7 with local anesthesia is planned because the tooth cannot be restored. The most appropriate management is extraction with

A. transfusion of packed red blood cells prior to the extraction.
B. hyperbaric oxygen treatment prior to the extraction.
C. hyperbaric oxygen treatment prior to and following the extraction.
D. local anesthetic containing no vasoconstrictor.

The current recommended regimen of antibiotic prophylaxis for a patient with a prosthetic heart valve and an allergy to penicillin is

A. amoxicillin 3g orally one hour before procedure; then 1.5g six hours after initial dose.
B. amoxicillin 2g orally one hour before procedure only.
C. clindamycin 300mg orally one hour before procedure; then 150mg six hours after initial dose.
D. clindamycin 600mg orally one hour before procedure only.
E. erythromycin stearate, 2g orally two hours before procedure only.

Extraction of a tooth is CONTRAINDICATED in the dental office for a patient who

1. had a myocardial infarct two months ago.
2. is hypothyroid.
3. has a Factor VIII deficiency.
4. is 4 months pregnant.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The elastic limit of a material is the greatest load to which a material can be subjected to in order that it will

A. fracture.
B. remain distorted.
C. return to its original dimension.
D. return to a point beyond its original dimension.

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Acellular cementum on a root is
A. the result of chronic inflammation.
B. a defective cementoid substance.
C. caused by premature degeneration of Hertwig’s root sheath.
D. a normal anatomical structure.

Corticosteroids may be used for the management of
1. allergy.
2. arthritis.
3. asthma.
4. Addison's disease.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following should NOT be administered to a patient with chest pain consistent with a myocardial infarction?
A. Epinephrine.
B. Nitroglycerin.
C. Oxygen.
D. Morphine.
E. Acetylsalicylic acid.

What is the most likely diagnosis for a patient who exhibits elevated blood pressure, swollen ankles, distended neck veins and difficulty breathing when lying down?
A. Congestive heart failure.
B. Bronchitis.
C. End stage renal disease.
D. Hypertension.

Compared to acetylsalicylic acid, long-term use of celecoxib is associated with
A. reduced gastrointestinal ulcerations.
B. increased cardiac protection.
C. lower renal toxicity.
D. increased safety for asthmatic patients.
E. increased platelet inhibition.

Which of the following medications is most appropriate in the management of a patient experiencing an acute asthmatic attack?
A. Salbutamol.
B. Sodium cromoglycate.
C. Fluticasone.
D. Zileuton.

The predominant organism(s) associated with chronic (adult) periodontitis is/are
1. Prevotella intermedia.
2. Pseudomonas aeruginosa.
3. Porphyromonas gingivalis.
4. Heliobacter pilori.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

An overdose of acetaminophen can result in
A. nephrotoxicity.
B. cardiotoxicity.
C. neurotoxicity.
D. hepatotoxicity.

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The most appropriate treatment of necrotizing ulcerative periodontitis (NUP) in a patient with no fever and no lymphadenopathy is

1. periodontal debridement.
2. antibiotic therapy.
3. oral hygiene instruction.
4. topical steroid therapy.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

In determining the ideal proximal outline form for a Class II amalgam cavity preparation in a molar the

A. axial wall should be 1.5 mm deep.
B. gingival cavosurface margin must be placed supragingivally.
C. proximal walls diverge occlusally.
D. facial and lingual proximal cavosurface margins must just clear contact with the adjacent tooth.

Which of the following procedures must be done to ensure acceptable mercury hygiene in a dental office?

A. Use of high volume evacuation when working with amalgam.
B. Use of air spray when condensing, polishing or removing amalgam.
C. Storage of amalgam scrap in a dry container with a lid.
D. A quarterly mercury assessment for office personnel.

A. Oral ibuprofen.
B. Intramuscular penicillin.
C. Subcutaneous epinephrine.
D. Inhaled nitrous oxide.

Maxillary midline diastema can be caused by

1. a mesiodens.
2. congenitally missing lateral incisors.
3. a tongue thrust habit.
4. a thumb-sucking habit.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Death from barbiturates is the result of

A. alkalosis.
B. irreversible hypotension.
C. toxic effects on the liver.
D. depression of the centres of respiration.
E. allergy.

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In deciduous molars, the cusp with the largest pulp horn is the

A. distolingual.
B. distobuccal.
C. mesiolingual.
D. mesiobuccal.

Which of the following medications increases a patient’s risk for intraoral candidiasis?

A. Warfarin.
B. Cyclosporine.
C. Pentobarbital.
D. Ibuprofen.
E. Pilocarpine.

Tooth development begins when the basal layer of cells proliferates to form a ridge called the

A. dental lamina.
B. dental papilla.
C. odontoblastic matrix.

Immediately after tooth extraction, a patient with a known cardiac problem experiences angina. This is most likely precipitated by

A. the patient’s upright position in the chair.
B. an allergy to the anesthetic agent.
C. anxiety and anticipation of pain.
D. the epinephrine in the anesthetic agent.

When assessing the difficulty of removal of an impacted mandibular third molar, you should consider

1. depth in the alveolus.
2. periodontal ligament space.
3. root width.
4. angulation.
5. size of the pulp chamber.

Which of the following conditions is NOT a sequela of a tooth completely impacted in bone?

A. Development of a dentigerous/follicular cyst around its crown.
B. External resorption of the tooth.
C. Osteonecrosis of the adjacent bone.
D. Development of a benign neoplasm adjacent to its crown.

The earliest colonizers of dental plaque are

A. Gram-positive rods.
B. Gram-positive cocci.
C. Gram-negative rods.
D. Gram-negative cocci.

The Controlled Drugs and Substances Act controls the distribution and use of which of the following?

A. Amitriptyline.
B. Amoxicillin.
C. Ibuprofen.
D. Oxycodone.

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Angle’s "subdivision" refers to an abnormal molar relationship that is

A. bilateral.  
B. unilateral.  
C. functional.  
D. transitional.  
E. traumatic.

A squamous cell carcinoma located near the midline of the anterior floor of the mouth normally spreads to which of the following lymph nodes?

A. Unilateral neck lymph nodes.  
B. Mediastinal lymph nodes.  
C. Bilateral neck lymph nodes.  
D. Retropharyngeal lymph nodes.

Flurbiprofen is an

1. antibiotic.  
2. analgesic.  
3. anti-inflammatory.  
4. anti-depressant.

A. (1) only  
B. (2) only  
C. (2) and (3)  
D. (4) only

When used for conscious sedation, nitrous oxide may

1. produce signs of inherent myocardial depression.  
2. produce an indirect sympathomimetic action.  
3. cause the patient to sweat.  
4. produce numbness of the extremities.

A. (1) (2) (3)  
B. (1) and (3)  
C. (2) and (4)  
D. (4) only  
E. All of the above.

Amphetamines

1. increase mental alertness.  
2. increase salivation.  
3. decrease fatigue.  
4. are useful in controlling arrhythmias.

A. (1) (2) (3)  
B. (1) and (3)  
C. (2) and (4)  
D. (4) only  
E. All of the above.

Koplik's spots are seen in the oral cavity of patients with

A. chickenpox.  
B. mumps.  
C. measles.  
D. scarlet fever.  
E. smallpox.

If post-exposure prophylaxis is recommended following a significant percutaneous injury from an HIV-positive patient, the antiviral drugs should ideally be administered within

A. 1-2 hours of the injury.  
B. 1-2 days of the injury.  
C. 2 weeks of the injury.  
D. 4 weeks of the injury.

During cardiopulmonary resuscitation (CPR), external chest compression of an adult patient should be

A. 1 - 2cm.  
B. 4 - 5cm.  
C. 7 - 10cm.  
D. 10 - 20cm.

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In a patient with an adequate band of keratinized tissue, gingivectomy is indicated for all EXCEPT

A. gingival pockets.
B. suprabony pockets.
C. gingival overgrowths.
D. infrabony pockets.

Which one of the following oral conditions is NOT caused by a virus?

A. Benign mucous membrane pemphigoid.
B. Herpetic gingivostomatitis.
C. Leukoplasia.
D. Necrotizing ulcerative gingivitis.

Which of the following anesthetic agents is/are metabolized by plasma cholinesterase?

1. Prilocaine.
2. Lidocaine.
4. Procaine.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which microorganism does NOT contribute significantly to the progression of dentinal caries?

A. Actinomyces naeslundii.
B. Lactobacillus casei.
C. Actinomyces viscosus.
D. Streptococcus salivarius.

Epinephrine antagonizes the effects of histamine by

A. preventing the release of histamine.
B. acting on the central nervous system.
C. producing physiologic actions opposite to that of histamine.
D. competitive blocking of histamine at the cellular receptor site.

Which of the following preoperative instructions are most appropriate for a well-controlled insulin-dependent diabetic patient who is scheduled at 9:00 a.m. for the extraction of two teeth under local anesthesia?

A. Eat breakfast before the appointment and delay insulin injection until after the appointment.
B. Take insulin before the appointment and delay breakfast until after the extractions.
C. Eat breakfast before the appointment and take insulin according to the regime prescribed by the physician.
D. Delay breakfast and insulin until after the dental appointment.

The inorganic ion that is implicated in primary hypertension is

A. sodium.
B. fluoride.
C. potassium.
D. magnesium.
Which of the following statements is/are true regarding diazepam?

1. Its long duration of action is partly due to active metabolites.
2. It does not produce antianxiety effects after intramuscular administration.
3. Intravenous administration is more reliable than oral.
4. Its sedative effect can be reversed by naloxone.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A positive pulp response to the application of cold indicates

A. necrosis.
B. periodontal involvement.
C. an acute alveolar abscess.
D. a periodontal abscess.
E. vitality.

Coxsackie A virus is the etiologic agent in

A. papilloma.
B. herpangina.
C. verruca vulgaris.
D. condyloma accuminatum.

Which of the following is NOT a common adverse side effect from a tricyclic antidepressant?

A. Orthostatic hypotension.
B. Arrhythmias.
C. Anticholinergic effects.
D. Confusion.

Which of the following is the most appropriate for determining the morphology of the temporomandibular joint disc?

A. Arthrography.
B. Computed tomography.
C. Magnetic resonance imaging.
D. Corrected tomography.

The smear layer present on the root canal wall after cleaning and shaping is best removed by using sodium hypochlorite and

A. EDTA.
B. hydrogen peroxide.
C. chlorhexidine.
D. isopropyl alcohol.

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A small hinge articulator was used for the fabrication of a cast gold onlay for tooth 4.6. Which of the following movements will result in the greatest discrepancy between the articulator and the patient?

A. Laterotrusive.  
B. Mediotrusive.  
C. Protrusive.  
D. Retrusive.

Periradicular odontogenic cysts are primarily associated with

A. impacted wisdom teeth.  
B. congenitally missing teeth.  
C. nonvital teeth.

When analyzing occlusion, which of the following findings is/are potentially damaging?

1. Marginal ridge discrepancies.  
2. Extruded teeth.  
3. Wide occlusal tables resulting from excessive wear.  
4. Deep overbite with minimal overjet.

A. (1) (2) (3)  
B. (1) and (3)  
C. (2) and (4)  
D. (4) only  
E. All of the above.

Incomplete tooth fracture

A. can readily be diagnosed using transillumination.  
B. most commonly involves the supporting cusps.  
C. is associated with medium to large-sized restorations.  
D. elicits dull, prolonged pain on chewing.

A post is used in an endodontically treated tooth to

A. obturate the canal.  
B. reinforce the root.  
C. reinforce the remaining coronal tooth structure.  
D. retain the core build up.

The test(s) diagnostic for primary hyperparathyroidism in a patient with multiple brown tumours is/are

A. parathyroid biopsy.  
B. multiple jaw biopsies.  
C. radiographic skeletal survey.  
D. serum calcium and PTH level.  
E. creatine clearance and BUN.

To obtain block anesthesia of the second division of the trigeminal nerve, the solution must be deposited in proximity to the

A. foramen ovale.  
B. pterygoid plexus.  
C. foramen spinosum.  
D. infraorbital foramen.  
E. pterygopalatine fossa.

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Which of the following conditions produces a radiolucent image?

A. Sialolithiasis.
B. Osteosclerosis.
C. Odontoma.
D. Ameloblastic fibroma.

Fordyce spots or granules is/are

A. sweat glands.
B. implanted epithelium.
C. cystic formations.
D. sebaceous glands.
E. hyperkeratosis.

If the image of a supernumerary tooth appears in a second radiograph to have shifted distally from the position shown on the original radiograph, this indicates that the supernumerary tooth lies

A. buccal to the premolars.
B. lingual to the premolars.
C. on the same plane as the premolars.
D. mesial to the premolars.
E. distal to the premolars.

A 30 year old HIV positive patient presents for the removal of an abscessed second molar. The most appropriate management is to

A. refer to another dentist because universal infection control procedures are insufficient.
B. schedule appointments at the end of the day.
C. treat the patient in the same way as all other patients.
D. double glove before starting any surgical procedures.

In order to achieve a proper interproximal contact when using a spherical alloy, which of the following is/are essential?

1. A larger sized condenser.
2. A thinner matrix band.
3. An anatomical wedge.
4. Use of mechanical condensation.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

High telomerase activity is associated with

A. diabetes mellitus.
B. malignant tumors.
C. hyperthyroidism.
D. cystic fibrosis.

Effective tissue displacement with elastic impression materials can be accomplished by

1. injection of the material into the gingival sulcus.
2. placement of chemical-impregnated cords into the gingival sulcus.
3. electrosurgical means.
4. a firm tray material.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.
Which of the following contains microorganisms?

A. Acquired pellicle.
B. Calculus.
C. Dental plaque.
D. B. and C.
E. All of the above.

The muscle attached to the labial surface of the maxilla above the region of the central incisors is

A. labii inferioris.
B. labii superioris.
C. orbicularis oris.
D. risorius.
E. caninus.

On a semi-adjustable articulator, the incisal guide table represents

A. a reference point for the establishment of occlusal vertical dimension.
B. the anterior equivalent of condylar guidance.
C. a mechanical equivalent of the horizontal and vertical overlap of the anterior teeth.
D. the mechanical equivalent of the Curve of Wilson.

Which of the following is the most effective method of cleaning endodontic instruments prior to sterilization?

A. Manual brushing.
B. High pressure water jet.
C. Washing with antimicrobial soap.
D. Washing in an ultrasonic bath for 5 minutes.

Use of nitrous oxide analgesia produces tinnitus as a result of

A. central nervous system reaction.
B. peripheral action on the eardrum.
C. increased pressure in the middle ear.
D. cochlea effect.
E. dysphoria.

Which statement is FALSE regarding the use of a barbed broach?

A. Removal of vital or non-vital pulp tissue.
B. Removal of food debris from the canal.
C. Removal of paper points and cotton pellets.
D. Removal of gutta-percha during non-surgical retreatment.

A patient complains of the discolouration of an upper central incisor. Radiographically, the pulp chamber and the root canal space are obliterated and the periodontal ligament space appears normal. The most appropriate management would be to

A. perform root canal treatment and nonvital bleaching.
B. perform root canal treatment and fabricate a post retained metal-ceramic crown.
C. perform root canal treatment and fabricate a porcelain veneer.
D. fabricate a metal-ceramic crown.
E. fabricate a porcelain veneer.
One week after an amalgam restoration is placed in the mandibular first premolar, the patient returns complaining of a sharp pain of short duration when eating or drinking something cold. Teeth respond normally to electric pulp testing and heat and the radiographs are normal. The most likely diagnosis is

A. hypercementosis.
B. reversible pulpitis.
C. pulpal microabscess.
D. acute periradicular periodontitis.

The most frequent cause of hyposalivation in elderly patients is

A. Alzheimer’s disease.
B. multiple medications.
C. salivary gland atrophy.
D. Sjögren’s syndrome.

Unconsciousness in syncope results from

A. electrolyte imbalance.
B. neurogenic shock.
C. cerebral hyperemia.
D. cerebral hypoxia.

The most important factor in stainless steel crown retention in a primary tooth is the

A. preservation of the coronal bulge.
B. maintenance of parallelism.
C. placement of accessory grooves.
D. insertion of retentive pins.

What is the most likely cause of sensitivity related to a noncarious cervical lesion?

A. Loss of dentin bulk.
B. Increased number of open dentinal tubules.
C. Bacterial contamination.
D. Hyperocclusion.

A mixed lesion with a radiolucent rim and corticated border causing impaction of a permanent tooth is most likely a/an

A. adenomatoid odontogenic tumour.
B. calcifying epithelial odontogenic tumour.
C. odontoma.
D. ameloblastic fibro-odontoma.

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Which of the following sites for squamous cell carcinoma has the best prognosis?

A. Lower lip.
B. Retromolar area.
C. Gingiva.
D. Buccal mucosa.
E. Hard palate.

Which of the following muscles comprise the retromolar pad?

1. Lateral (external) pterygoid.
2. Buccinator.
3. Palatoglossus.
4. Superior constrictor.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following entities can present as periapical radiolucencies?

1. a periapical granuloma.
2. a radicular cyst.
3. a metastatic carcinoma.
4. the mental foramen.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following root surfaces have concavities that make root planing difficult?

A. Mesial of maxillary first premolars.
B. Lingual of mandibular first premolars.
C. Mesial of maxillary incisors.
D. Distal of the palatal roots of maxillary molars.

Compared with zinc-phosphate cement, polycarboxylate cement has

A. longer working time.
B. lower film thickness.
C. increased compressive strength.
D. superior biologic compatibility.

In an edentulous maxilla, the direction of resorption of the alveolar ridge is

A. upward and palatally.
B. upward and facially.
C. uniform in all directions.
D. upward only.

A "broken stress" or "non-rigid" type fixed prosthesis is indicated when

A. the retainers can be so designed as to have equal retentive qualities.
B. 2 or 3 teeth are to be replaced.
C. constructing a mandibular fixed prosthesis.
D. the abutments cannot be prepared in parallel without excessive removal of tooth structure.

The term used to describe epithelial changes including nuclear hyperchromatism, alteration of nuclear/cytoplasmic ratio and abnormal mitoses is

A. acanthosis.
B. hyperparakeratosis.
C. dysplasia.
D. acantholysis.
Which of the following tissues is LEAST sensitive to ionizing radiation?

A. Enamel.
B. Oral mucosa.
C. Salivary gland.
D. Bone.

For which of the following medical emergencies is atropine most commonly used?

A. Anaphylaxis.
B. Bradycardia.
C. Bronchospasm.
D. Hypotension.

For which of the following teeth is the risk of root fracture increased if a rotational force is used during extraction?

A. Upper canine.
B. Lower canine.
C. Upper first bicuspid.
D. Lower first bicuspid.
E. Upper lateral incisor.

The most appropriate radiographic examination for a 4 year old without visible or clinically detectable caries or anomalies, and with open proximal contacts is

A. maxillary and mandibular anterior occlusals.
B. a pair of posterior bite-wings.
C. maxillary and mandibular posterior periapicals.
D. no radiographic examination.

The color of gingiva is influenced by

1. the degree of keratinization.
2. connective tissue vascularity.
3. amount of melanin pigmentation.
4. subgingival deposits.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A patient complains of pain in a mandibular molar when chewing hard foods and drinking cold liquids. Electric pulp tests and radiographic appearance are normal. The pain is most likely caused by

A. acute periradicular periodontitis.
B. chronic periradicular periodontitis.
C. a cracked tooth.
D. chronic pulpitis.

Isolated gingival recession is most frequently seen on teeth that are

A. heavily restored.
B. labially prominent.
C. mobile.
D. nonvital.

The predominant immunoglobulin isolated from saliva is

A. IgG.
B. IgM.
C. IgA.
D. IgD.

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Cleft palate may result in a higher incidence of
1. supernumerary teeth.
2. congenitally missing teeth.
3. altered crown morphology.
4. orthognathic surgery.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Periodontitis is differentiated from gingivitis by the amount of
A. plaque accumulation.
B. apical migration of the epithelial attachment.
C. gingival inflammation.
D. discomfort of the patient.
E. subgingival calculus.

In a teenage patient with normal gingiva, interdental plaque removal is best accomplished with
A. a regular toothbrush.
B. a hard nylon bristle brush.
C. an interproximal brush.
D. dental floss.
E. an interdental wood stick.

Warfarin (Coumadin®) acts by
A. preventing formation of thromboplastin.
B. preventing fibrinogen conversion to fibrin.
C. inhibiting the synthesis of prothrombin in the liver.
D. incorporating ionic calcium.

The most appropriate management for atypical swallowing is
A. tongue trap appliance.
B. occipital traction.
C. myofunctional treatment.
D. Hawley appliance.

Healing of extraction wounds is sometimes complicated by a condition known as a "dry socket". In this condition
A. no fibrin is formed in the extraction socket.
B. routine use of antibiotics is advised as a prophylactic measure.
C. a focal osteomyelitis exists in which the clot has disintegrated.
D. healing is painful but not delayed.

What is the dose of epinephrine in an EpiPen® Jr.?
A. 0.15.
B. 0.20.
C. 0.25.
D. 0.30.
E. 0.35.

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Root resorption of primary teeth can be accelerated by
A. the absence of a permanent replacement.
B. the premature loss of the adjacent primary teeth.
C. the presence of premature occlusal contact.
D. inflammation of the pulp.

The most logical explanation for causing swelling beneath the eye caused by an abscessed maxillary canine is that the
A. lymphatics drain superiorly in this region.
B. bone is less porous superior to the root apex.
C. infection has passed into the angular vein which has no valves.
D. the root apex lies superior to the attachment of the caninus and levator labii superioris muscles.

Sickle cell anemia is
A. a genetic disease.
B. caused by exposure to radiation.
C. a viral infection.
D. a drug reaction.
E. an auto-immune disease.

Which of the following are effects of cold working a metal?
1. Increase in ductility.
2. Decrease in ductility.
3. Increase in hardness.
4. Increase in resistance to corrosion.
A. (1) and (2)
B. (1) and (4)
C. (2) and (3)
D. (3) and (4)

A decrease of which of the following is indicative of hypoparathyroidism?
A. Serum phosphorus.
B. Serum calcium.
C. Thyroid activity.
D. Serum alkaline phosphatase.

Which of the following are effects of cold working a metal?
A. suprabony periodontal pocket formation.
B. marginal gingivitis.
C. increased tooth mobility.
D. generalized recession.

The roots of the first permanent molar should be completely formed by the age of
A. six years.
B. seven years.
C. nine years.
D. eleven years.
E. thirteen years.

A clenching habit may be a factor in
A. suprabony periodontal pocket formation.
B. marginal gingivitis.
C. increased tooth mobility.
D. generalized recession.

The flexibility of a retentive clasp arm is affected by the
A. location of the reciprocal arm.
B. length of the retentive arm.
C. position on the abutment tooth.
D. location of the occlusal rest.
Antibiotic prophylaxis is recommended for patients with which of the following?

1. Mitral valve prolapse with regurgitation.
2. Cardiac pacemaker.
3. Prosthetic heart valves.
4. All heart murmurs.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Calculus contributes to gingival inflammation by

A. having a porous surface.
B. having cytotoxic bacterial products.
C. promoting bacterial colonization.
D. all of the above.

The principal action of caffeine is on the

A. cerebral cortex.
B. corpus callosum.
C. hypothalamus.
D. spinal cord.

A patient with multiple small bruises (purpura) most likely has a low count of

A. lymphocytes.
B. T-cells.
C. platelets.
D. erythrocytes.
E. eosinophils.

When a patient experiences continuous pain in the maxillary premolar and molar areas and there is no evidence of dental infection, the most likely diagnosis is

A. trigeminal neuralgia.
B. acute maxillary sinusitis.
C. impacted maxillary canine.
D. impacted maxillary third molar.
E. glossopharyngeal neuralgia.

Which of the following space maintainers is most appropriate for a 4 year old child whose mandibular first primary molars have been extracted?

A. Bilateral band and loops.
B. Lingual holding arch.
C. A removable appliance.
D. Distal shoe appliances.

Salivary secretion

A. increases with age.
B. decreases with age.
C. shows no difference with age.
D. shows a decrease in mineral content in the elderly.

If adjustment of the occlusal plane of natural teeth opposed by a complete or partial denture is required, it should be completed

A. after the teeth have been set on the trial denture.
B. immediately after making the final casts.
C. upon delivery of the denture.
D. after the diagnosis and treatment plan has been established.

Acetylsalicylic acid is indicated for the management of which of the following?

A. Myocardial infarction.
B. Asthma.
C. Gastric ulcer.
D. Hemophilia.

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Extreme resorption of an edentulous mandible can bring the alveolar ridge to the level of the attachment of the

A. buccinator, styloglossus and geniohyoid muscles.
B. mylohyoid, buccinator and styloglossus muscles.
C. superior constrictor, mylohyoid and buccinator muscles.
D. mylohyoid, buccinator and genioglossus muscles.

What is the most appropriate endodontic management for a 9 year old patient for tooth 1.1, with an open apex and a necrotic pulp?

A. Pulpotomy.
B. Apexification.
C. Pulpectomy.
D. Apexogenesis.
E. Apical surgery.

Calculus attaches to tooth surfaces by all of the following EXCEPT

A. organic pellicle.
B. mechanical locking to tooth/root irregularities.
C. close adaption to cementum.
D. hemidesmosomes.

A patient with a tumor in the right infratemporal fossa shows a significant shift of the mandible to the right when opening. Which nerve is involved?

A. Facial nerve VII.
B. Glossopharyngeal nerve IX.
C. Trigeminal nerve V.
D. Hypoglossal nerve XII.

Pins for cusp replacement should ideally be placed

A. within enamel.
B. at the dentino-enamel junction.
C. a minimum of 0.5-1.0mm from the dentino-enamel junction.
D. a minimum of 1.5-2.0mm from the dentino-enamel junction.

Successful repair of bony defects is dependent upon

A. its depth.
B. the number of walls.
C. the distance between the buccal and lingual walls.
D. the distance from the crest of the defect to the cemento-enamel junction.

The majority of nitrous oxide is eliminated from a patient's circulatory system through the

A. lungs.
B. kidneys.
C. liver enzymes.
D. plasma.
E. GI tract.

Recurrent unilateral submandibular swelling and pain just prior to meals is indicative of

A. an odontogenic infection.
B. sialolithiasis.
C. ranula.
D. sarcoidosis.
E. Sjögren’s syndrome.
Mandibular growth
A. is sustained over a longer period of time in girls.
B. is sustained over a longer period of time in boys.
C. occurs at the same chronologic age in both sexes.
D. occurs two years earlier in boys than in girls.

Overlapping contacts on a bitewing radiograph result from the
1. malalignment of teeth.
2. increased vertical angulation of the x-ray beam.
3. incorrect horizontal angulation of the x-ray beam.
4. decreased vertical angulation of the x-ray beam.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Multiple neurofibromatosis and "café au lait" spots on the skin are typical of
A. Gardner's syndrome.
B. Plummer-Vinson syndrome.
C. Von Recklinghausen's disease.
D. Down syndrome.

When removal of carious dentin results in an exposure of non-vital pulp, the treatment of choice is to
B. cap the exposed pulp horn with calcium hydroxide.
C. occlude the cavity with a light packing of cotton moistened with eugenol.
D. place a temporary restoration and observe.

During the fabrication of new complete dentures, which of the following can be modified to achieve the desired occlusion?
1. The compensating curve.
2. The orientation of the occlusal plane.
3. The cusp inclination.
4. The condylar inclination.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Hyperplastic pulpitis is
A. an acute condition.
B. a proliferative reaction of the pulp.
C. frequently found in elderly patients.
D. accompanied by severe pain.

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Which one of the following would be of greatest value in determining the etiology of an oral ulceration?

A. History of the oral lesion.
B. Cytological smear.
C. Systemic evaluation.
D. Laboratory tests.

The "smear layer" is an important consideration in

A. plaque accumulation.
B. caries removal.
C. pulp regeneration.
D. dentin bonding.

Streptomycin

1. enhances the activity of some neuromuscular blocking agents.
2. can induce 8th cranial nerve damage.
3. is a broad-spectrum antibiotic.
4. is used to treat tuberculosis.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A patient presents with a non-healing lesion on the side of the nose. It has a rolled border and has been increasing in size. The most likely diagnosis is

A. a sebaceous cyst.
B. a basal cell carcinoma.
C. lupus erythematosus.
D. verruca vulgaris.
E. an epulis.

Extreme overjet, recessive chin and a deep labial mento-labial sulcus are common findings in which relationship?

A. Prognathic.
B. Mesognathic.
C. Retrognathic.
D. Crossbite.

In restoring occlusal anatomy, the protrusive condylar path inclination has its primary influence on the morphology of

A. cusp height.
B. anterior teeth only.
C. mesial inclines of maxillary cusps and distal inclines of mandibular cusps.
D. mesial inclines of mandibular cusps and distal inclines of maxillary cusps.

Which of the following diseases may cause an enlargement of the jaws, development of diastemas and/or a poorly fitting denture?

A. Phantom bone disease.
B. Rickets.
C. Paget’s disease.
D. Osteoporosis.
E. Hypophosphatasia.

In soldering nickel-cobalt-chromium alloys and stainless steel, the function of the fluoride flux is

A. to lower the melting range of the solder.
B. to reduce the copper-oxide content of the alloy.
C. to stop the flow of the molten solder onto undesired areas.
D. to reduce the formation of chromium oxide during soldering.

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Diagnostic casts for a fixed bridge allow the dentist to

1. visualize the direction of the occlusal forces.
2. assess occlusion more accurately.
3. plan the pontic design.
4. assess the esthetics using a diagnostic wax-up.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A fixed partial denture with a single pontic is deflected a certain amount, a span of two similar pontics will deflect

A. the same amount.
B. twice as much.
C. four times as much.
D. eight times as much.

Which of the following is the most common tumor of the parotid gland?

A. Pleomorphic adenoma.
B. Oncocytoma.
C. Warthin’s tumor.
D. Canalicular adenoma.

Tetracyclines

1. have no side effects.
2. may increase susceptibility to superinfections.
3. are safe to use during pregnancy.
4. have a wide spectrum of antibacterial activity.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The higher modulus of elasticity of a chromium-cobalt-nickel alloy, compared to a Type IV gold alloy, means that chromium-cobalt-nickel partial denture clasp will require

A. a thicker cross section.
B. a shorter retentive arm.
C. more taper.
D. a shallower undercut.

A patient telephones and tells you he has just knocked out his front tooth but that it is still intact. Your instructions should be to

A. put the tooth in water and come to your office at the end of the day.
B. wrap the tooth in tissue and come to your office in a week's time.
C. put the tooth in alcohol and come to your office immediately.
D. place tooth under the tongue and come to your office immediately.
E. place the tooth in milk and come to your office immediately.
When using alginate impression material, which one of the following statements is correct?

A. Store the impression in water at 37°C prior to pouring the cast.
B. Remove the impression slowly from the undercuts.
C. Control the setting time by changing the water/powder ratio.
D. Pour the cast immediately following disinfection.

The highest incidence of congenitally missing lateral incisors is most likely seen in a patient with

A. unilateral cleft lip and palate.
B. congenital heart disease.
C. Down's syndrome.
D. hyperthyroidism.

Abnormalities in blood clotting may be associated with a deficiency of vitamin

A. B12.
B. C.
C. E.
D. K.

Under normal conditions, the most definitive test to confirm the loss of pulp vitality is

A. applying warm gutta percha to the crown.
B. cutting into the dentin without anesthetic.
C. applying ethyl chloride to the crown.
D. performing a radiographic examination of the tooth.
E. performing an electric pulp test.

Histologically, a pulp polyp consists of

1. a mass of collagenous fibres.
2. Russell bodies.
3. proliferating capillaries.
4. fibroblasts.
5. polymorphonuclear leucocytes.

A. (1) (2) (3) (4)
B. (1) (3) (4)
C. (1) (3) (4) (5)
D. (2) and (5)
E. All of the above.

In a healthy periodontium, attached gingiva

1. is bound firmly by the periosteum to the alveolar bone.
2. is attached by collagen fibres to the cementum.
3. displays varying degrees of stippling.
4. has a keratinized surface.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

During general anesthesia, all of the following should be monitored EXCEPT

A. pupil diameter.
B. blood pressure.
C. heart rate.
D. oxyhemoglobin saturation.
E. respiratory rate.
The desirable relationship between the coefficients of thermal expansion of an alloy ($\varepsilon_{metal}$) and a ceramic ($\varepsilon_{ceramic}$) used for a metallo-ceramic restoration is

- A. $\varepsilon_{metal}$ significantly higher than $\varepsilon_{ceramic}$.  
- B. $\varepsilon_{metal}$ significantly lower than $\varepsilon_{ceramic}$.  
- C. $\varepsilon_{metal}$ equal to $\varepsilon_{ceramic}$.  
- D. $\varepsilon_{metal}$ slightly higher than $\varepsilon_{ceramic}$.  
- E. $\varepsilon_{metal}$ slightly lower than $\varepsilon_{ceramic}$.  

When cementing an inlay, the best procedure to ensure accurate seating is a

- A. continuous firm pressure on the inlay until the cement is set.  
- B. thick mix of cement.  
- C. rapid and heavy application of pressure until the inlay is seated.  
- D. very thin mix of cement.  

Mandibular overdentures are used to

- A. increase the strength of the denture.  
- B. maintain the alveolar ridge morphology.  
- C. improve periodontal health of abutment teeth.  
- D. decrease costs.  

If the lining cement is left on the gingival cavosurface margin of a Class II amalgam restoration,

- A. cement dissolution will lead to leakage.  
- B. the preparation will lack retention form.  
- C. the preparation will lack resistance form to bulk fracture.  
- D. the preparation will lack appropriate outline form.  

An incipient lesion on an interproximal surface is usually located

- A. at the contact area.  
- B. facial to the contact area.  
- C. lingual to the contact area.  
- D. gingival to the contact area.  
- E. occlusal to the contact area.  

A simple bone cyst/traumatic bone cyst is a radiolucency most frequently seen

- A. in the mandibular ramus.  
- B. posteriorly to the maxillary molars.  
- C. from the symphysis to the ramus of the mandible.  
- D. in the maxillary premolar area.  

The white appearance of the oral mucosa following extended local application of acetylsalicylic acid is the result of

- A. hyperparakeratosis.  
- B. acanthosis.  
- C. coagulation necrosis.  
- D. edema.  

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What is the maximum number of cartridges (1.8ml) of a 2% local anesthetic solution that can be administered without exceeding a total dose of 300mg?

A. 2.
B. 4.
C. 6.
D. 8.
E. 10.

Which of the following permanent restorations is indicated after a formocresol pulpotomy has been completed on a primary molar?

A. A stainless steel crown placed at the same appointment.
B. A stainless steel crown placed when a radiograph demonstrates no internal resorption.
C. An amalgam placed at the same appointment.
D. An amalgam placed when a radiograph indicates no bone destruction between the roots.

Antihistamines act by

A. increasing the action of histaminase.
B. altering the formation of histamine.
C. blocking the actions of histamine by competitive inhibition.
D. interfering with the degradation of histamine.

Which antibiotic is CONTRAINDICATED for a patient with a history of a Type I anaphylactic reaction to penicillin?

A. Azithromycin.
B. Cephalexin.
C. Clindamycin.
D. Erythromycin.

In periodontal therapy, “guided tissue regeneration” is most successful in treating

1. horizontal bone loss.
2. a 3-walled infrabony defect.
3. a mandibular Class III furcation involvement.
4. a mandibular Class II furcation involvement.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only.
E. All of the above.

Compared to unfilled resins, composite resins have

1. reduced thermal dimensional changes.
2. increased strength.
3. reduced polymerization shrinkage.
4. better polishability.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only.
E. All of the above.

Which of the following is/are NOT usually affected by hereditary ectodermal dysplasia?

A. Salivary glands.
B. Teeth.
C. Sweat glands.
D. Hair.
E. Fingernails.

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Moistened dentin is preferred over dry dentin prior to the application of dentin bonding agents because

A. curing time is reduced.
B. the collagen matrix is maintained.
C. the smear layer is removed by the application of water.
D. enamel bonding is improved.

Which of the following impression materials is the LEAST flexible when set?

A. Polyvinyl siloxane.
B. Condensing silicone.
C. Polyether.
D. Polysulfide.

Which of the following constituents of a local anesthetic cartridge is most likely to be allergenic?

A. Lidocaine.
B. Epinephrine.
C. Metabisulfite.
D. Hydrochloric acid.

Systemic antibiotics may be indicated for patients presenting with generalized

A. chronic periodontitis.
B. aggressive periodontitis.
C. gingivitis.
D. gingival hyperplasia.

Tissue from a multilocular radiolucent area of the posterior mandible histologically shows follicular areas lined with columnar cells resembling the enamel organ. The most probable diagnosis is a/an

A. neurofibroma.
B. ameloblastoma.
C. central ossifying fibroma.
D. lateral periodontal cyst.
E. dentigerous cyst.

Subgingival plaque in deep periodontal pockets consists primarily of

A. gram-positive microorganisms.
B. aerobic microorganisms.
C. gram-negative microorganisms.
D. viruses.

A patient has a proven allergy to para-amino benzoic acid derivatives. Which local anesthetic solution can be used safely?

A. Procaine hydrochloride (Novocaine).
B. Butethamine hydrochloride (Monocaine).
C. Tetracaine hydrochloride (Pontocaine).
D. Lidocaine hydrochloride (Xylocaine).

Following a simple extraction of tooth 4.7, hemostasis was achieved. Forty-eight hours later, there is renewed bleeding from the extraction site. Firm pressure fails to achieve hemostasis. The most appropriate management is to

A. give local anesthetic, pack and suture.
B. apply firm pressure and ice for ten minutes.
C. obtain an international normalized ratio (INR) and a complete blood count.
D. give local anesthetic and electrocauterize the socket.

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An 11-year old child has an open bite caused by active thumbsucking. You would

A. insert a habit-breaking appliance.
B. refer to a psychologist for evaluation.
C. encourage the child to accept help in discontinuing the habit and observe periodically.
D. refer to an orthodontist.

Patients who have undergone kidney transplantation are at an increased risk of developing

A. brown tumours.
B. plasma cell gingivitis.
C. erosive lichen planus.
D. squamous cell carcinoma.

Unsupported, hyperplastic tissue in an edentulous maxilla is most often found

A. near the tuberosities.
B. in the vault.
C. in the anterior segment of the arch.

Periodontitis

1. develops from gingivitis.
2. goes through stages of activity and remission.
3. is associated with bone loss.
4. is caused by occlusal trauma.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The primary muscle of the cheek is the

A. orbicularis oris.
B. masseter.
C. zygomaticus major.
D. buccinator.

Which of the following structures affects the thickness of the flange of a maxillary complete denture?

A. Malar process.
B. Coronoid process.
C. Mylohyoid ridge.
D. Zygomatic process.
E. Genial tubercle.

Which conditions are associated with Acquired Immunodeficiency Syndrome (AIDS)?

1. Acute marginal periodontitis.
2. Hairy leukoplakia.
3. Candidiasis.
4. Geographic tongue.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The most frequent cause for composite resin restoration failure is

A. brittleness of the composite.
B. excessive polymerization shrinkage.
C. presence of voids within the material.
D. inadequate moisture control during placement.
Percussion of a tooth is used to evaluate

1. ankylosis.
2. pain.
3. mobility.
4. vitality.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Overhangs on restorations predispose

1. enhanced plaque retention.
2. restricted plaque removal.
3. enhanced food retraction.
4. increased caries susceptibility.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

In an adult, continued growth of the mandibular condyles, an increase in size of the bones and soft tissues of the hands, feet, supraorbital ridges and air sinuses suggest

A. Addison’s disease.
B. hyperthyroidism.
C. pituitary adenoma.
D. gigantism.

Contact stomatitis may be caused by

A. dentifrice.
B. lipstick.
C. acrylic.
D. antibiotics.
E. All of the above.

Preoperative evaluation of a healthy patient requiring elective oral surgery in hospital should include

1. a complete history.
2. a physical examination.
3. an oral examination.
4. appropriate laboratory tests.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A 60 year old patient requests the replacement of tooth 4.6, which was extracted many years ago. Tooth 1.6 has extruded 1.8mm into the space of the missing tooth. The three unit fixed bridge replacing the mandibular first molar should be fabricated

A. to the existing occlusion.
B. after extracting tooth 1.6 and replacing it with a fixed partial denture.
C. after restoring tooth 1.6 to a more normal plane of occlusion.
D. after devitalizing and preparing tooth 1.6 for a cast crown.
Increasing the crystalline content of a dental ceramic will generally decrease its
A. fracture toughness.
B. opacity.
C. translucency.
D. proportional limit.

If there is insufficient arch space for a permanent tooth to erupt, the tooth may
A. cause resorption of the root of another tooth.
B. erupt out of position.
C. not erupt.
D. All of the above.

Which of the following features would be most indicative of a cracked tooth?
A. Periapical radiolucency.
B. Hypersensitivity to thermal stimuli.
C. Pain upon biting pressure.
D. Absent vitalometric response.

The antithrombotic effects of aspirin may be compromised by
A. codeine.
B. acetaminophen.
C. ibuprofen.
D. tramadol.

Which of the following statements is correct with respect to root caries lesions?
A. A specific microorganism causes root caries.
B. Early lesions involve adjacent enamel.
C. Colour of the lesion is a reliable indicator of caries activity.
D. The majority of lesions begin interproximally.

Which of the following represents the normal relationship of the primary canines?
A. The distal inclined plane of the maxillary canine articulates with the mesial inclined plane of the mandibular canine.
B. The mesial inclined plane of the maxillary canine articulates with the distal inclined plane of the mandibular canine.
C. Normal articulation of primary canines is end-to-end.
D. None of the above.

Titanium implants in the oral cavity are CONTRAINDICATED for patients who
A. are over age 75.
B. are on thyroid replacement therapy.
C. have a terminal disease.
D. have diabetes mellitus (controlled).

Pathologic migration of teeth is a clinical feature of
A. disuse atrophy.
B. necrotizing ulcerative gingivitis.
C. chronic marginal gingivitis.
D. generalized chronic periodontitis.

Which of the following conditions is NOT associated with the fully edentulous state?
A. Residual ridge reduction.
B. Decrease in masticatory function.
C. Altered taste perception.
D. Rheumatoid arthritis.

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The placement of a retentive pin in the proximal regions of posterior teeth would MOST likely result in periodontal ligament perforation in the

A. mesial of a mandibular first premolar.
B. distal of a mandibular first premolar.
C. distal of a mandibular first molar.
D. mesial of a mandibular first molar.

Which of the following analgesics is CONTRAINDICATED for a 76 year old patient with angina?

A. Acetaminophen.
B. Ibuprofen.
C. Codeine.
D. Tramadol.

A 50 year old obese patient with type 2 diabetes takes oral hypoglycemics. He is frequently skipping meals in order to reduce his weight. During his 8:30 a.m. appointment, his speech becomes slurred and he is less alert than usual. Which of the following is the most appropriate management of this patient?

A. 175ml of diet cola.
B. 15g of glucose as tablets or in solution.
C. 175ml unsweetened orange juice.
D. Dismissal of the patient to have his breakfast.

Which of the following is NOT associated with infectious mononucleosis?

A. Pharyngitis.
B. Lymphadenopathy.
C. Petechiae of the palate.
D. Gingival enlargement.
E. Fatigue.

In healthy gingiva, the level of the interproximal alveolar crest is related to the

A. thickness of the alveolar process.
B. location of the gingival margin.
C. amount of underlying trabecular bone.
D. position of the cemento-enamel junction.

Which mucogingival surgical procedure does NOT increase the zone of attached gingiva?

A. Free autogenous gingival graft.
B. Laterally positioned flap.
C. Coronally positioned flap.
D. Subepithelial connective tissue graft for root coverage.

The most appropriate management of a mandibular lateral incisor that has erupted lingually to the corresponding primary tooth is to

A. monitor the situation only.
B. extract the primary tooth and monitor.
C. extract the primary tooth and immediately reposition the permanent tooth.

In the presence of an acute bacterial infection, laboratory tests will show an increase in

A. polymorphonuclear leukocytes.
B. plasma cells.
C. lymphocytes.
D. monocytes.
E. eosinophils.

Which of the following instruments is contraindicated when extracting primary teeth?

A. Rongeur.
B. Root tip elevator.
C. Cow horn forcep.
D. Maxillary universal forcep.

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Following a pulpotomy in a second primary molar with extensive occlusal caries, what is the most appropriate restoration?

A. Glass ionomer.
B. Bonded amalgam.
C. Composite resin.
D. Stainless steel crown.

Which of the following conditions would NOT require antibiotic premedication before endodontic therapy?

A. Valvular heart disease.
B. Cardiac prosthesis.
C. Persistent odontogenic fistula.
D. Immunosuppressive therapy.
E. Organ transplant.

The vibrating line of the palate is

1. always on the hard palate.
2. an area which marks the movement of the soft palate.
3. easily located on a cast.
4. a useful landmark in complete denture fabrication.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

To ensure a clinically acceptable setting time, polyalkenoic cements contain

A. salicylic acid.
B. phosphoric acid.
C. maleic acid.
D. tartaric acid.
E. itaconic acid.

Habitual thumbsucking continued after the age of six causes

A. anterior open bite.
B. skeletal malocclusion.
C. mouth breathing.
D. sinusitis.

Which one of the following luting agents has been shown to reduce the incidence of fracture in an all-ceramic restoration?

A. Resin modified glass ionomer cement.
B. Zinc phosphate cement.
C. Composite resin cement.
D. Glass ionomer cement.

A protrusive relation record should be made by instructing the patient to protrude the mandible

A. 3-6mm.
B. 7-10mm.
C. 11-13mm.

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A 60 year old patient presents with lingual erosion of the maxillary incisors. The most likely cause is

A. alcoholism.
B. ulcerative colitis.
C. diabetes mellitus.
D. mitral valve prolapse.
E. rheumatoid arthritis.

Chronic disseminated Langerhans cell disease
A. produces a solitary eosinophilic lesion.
B. produces bony defects as focal areas of bony rarefaction.
C. occurs only in adult life.
D. is a malignant lesion.

When prescribing nonsteroidal anti-inflammatory drugs (NSAIDs), it is important to consider that prostaglandins

A. impair blood coagulation.
B. induce vasoconstriction.
C. prevent edema.
D. protect the gastric mucosa.

In the design of a removable partial denture, guiding planes are made
A. parallel to the long axis of the tooth.
B. parallel to the path of insertion.
C. at a right angle to the occlusal plane.
D. at a right angle to the major connector.

Local anesthetics block nerve conduction by interfering with ionic movement of
A. calcium.
B. potassium.
C. sodium.
D. chloride.

Vitamin D is a factor in
A. caries susceptibility.
B. calculus formation.
C. calcium absorption.
D. repair of hypoplastic defects of the enamel.

The most efficient cutting instrument used in the root canal is a
A. barbed broach.
B. reamer.
C. k-type file.
D. Hedstrom file.

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The success of remineralization of "white spot" lesions is dependent upon the

1. pH of the saliva.
2. frequency of the cariogenic challenge.
3. availability of mineral ions in saliva.
4. viscosity of the saliva.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The primary stimulus for growth of the mandible is

1. genetic.
2. epigenetic.
3. functional.
4. environmental.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The most important advantage of using reinforced zinc-oxide eugenol cement as a temporary restoration is that it

A. stimulates dentin repair.
B. occludes dentinal tubules.
C. desensitizes the pulp.
D. chelates to tooth structure.

A single tooth anterior crossbite found in a 9 year old should

A. self-correct.
B. be treated with a removable appliance.
C. have 2 arch orthodontic treatment.
D. be treated in the complete permanent dentition.
E. be observed and treated when the cuspids have erupted.

The principal microorganism in aggressive periodontitis (juvenile periodontitis) is

A. porphyromonas gingivalis.
B. fusobacterium vincenti.
C. actinobacillus actinomycetemcomitans.
D. prevotella intermedia.

The full palatal major connector is indicated where

A. there is a high, narrow palatal vault.
B. a well-defined, undercut palatal torus is present.
C. very few teeth remain in a flat or U-shaped arch.
D. palatal tissue is soft and compressible.

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Which of the following procedures requires antibiotic prophylaxis for a patient with a prosthetic heart valve?

A. Inferior alveolar nerve block.
B. Postoperative suture removal.
C. Endodontic instrumentation beyond apex.
D. Restoration of occlusal caries.
E. Making an alginate impression.

In a post-endodontic restoration, the function of the post is to insure

A. distribution of forces along the long axis.
B. resistance of the tooth to fracture.
C. sealing of the root canal.
D. retention of the definitive restoration.

Ludwig's angina may cause

A. respiratory obstruction.
B. cavernous sinus thrombosis.
C. suppurative encephalitis.
D. subdural empyema.

In processing (polymerizing) an acrylic denture in a water bath, a correct temperature control is desired because of the possibility of

A. shrinkage of the denture.
B. volumetric expansion of the denture causing an open bite.
C. warpage.
D. porosity due to boiling of the monomer.
E. crazing of the denture base around the necks of the teeth.

A decrease in the neutrophil count is present in

A. granulocytopenia (agranulocytosis).
B. iron deficiency anemia.
C. myeloid leukemia.
D. leukocytosis.
E. thrombocytopenic purpura.

Condensing osteitis in the periapical region is indicative of a/an

A. acute inflammation of the pulp.
B. pulpal abscess.
C. chronic inflammation of the pulp.
D. early apical abscess formation.

When preparing a cavity in a primary molar, there is a small mechanical exposure of one of the pulp horns. There is a slight hemorrhage and the dentin surrounding the exposure is sound. The most appropriate treatment is

A. extraction and space maintenance.
B. pulp capping with calcium hydroxide, a base and restoration.
C. pulpectomy and restoration.
D. base and restoration.

Which of the following is suggestive of a malignant tumour of the parotid gland?

A. Excessive salivation.
B. Seventh cranial nerve paralysis.
C. Sudden swelling.
D. Fluctuation.

The most common cause of malocclusion with a Class I molar relationship is

A. a thumbsucking habit.
B. crossbite in the posterior segments.
C. tooth size and jaw size discrepancy.
D. improper eruption of permanent first molars.

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Normal aging changes in the hard tooth tissues include:

1. continuous deposition of cementum.
2. continuous deposition of dentin.
3. decreased blood supply to the pulp.
4. increased porosity of enamel.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Gingival bleeding associated with chronic marginal gingivitis is due to:

A. a vitamin C deficiency.
B. destruction of vessels of the periodontal ligament.
C. excessive pocket depth.
D. microulceration of sulcus epithelium.

Which of the following would occur if a zinc containing amalgam is contaminated with saliva during condensing?

1. No change in compressive strength but lower tensile strength.
2. Increased expansion.
3. Reduced flow or creep.
4. Increased surface pitting.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following is directly involved in the conversion of prothrombin to thrombin?

A. Sodium.
B. Calcium.
C. Fluoride.
D. Potassium.
E. Bicarbonate.

Local anesthetic injected into dental abscesses is rarely effective because

A. bacteria can metabolize the local anesthetic.
B. edema dilutes the local anesthetic.
C. the tissue is too acidic.
D. there is excessive vasoconstriction.

Which of the following conditions may develop as a result of juvenile diabetes mellitus?

A. Ataxia.
B. Aphasia.
C. Deafness.
D. Blindness.
E. Motor paralysis.
A healthy, 23 year old male patient experiences a warm sensation, diaphoresis, nausea, light headedness and then loses consciousness approximately 30 seconds following the injection of 1.8ml of 2% lidocaine with 1:100,000 epinephrine for an inferior alveolar nerve block. What is the most likely diagnosis for his situation?

A. Allergic reaction to local anesthetic.
B. Overdose of local anesthetic.
C. Syncope.
D. Intravascular injection of local anesthetic.

Long term stability of the orthodontic correction of an anterior open bite is better

A. following cessation of a thumb sucking habit.
B. when the correction is accomplished by intrusion of the posterior teeth.
C. in patients with decreased lower anterior face heights.
D. when serial extractions are performed.

Healthy attached gingiva

A. has no basal cell layer.
B. is closely bound to underlying muscle.
C. contains elastic fibres.
D. is keratinized.

Presence of bleeding on probing

A. is indicative of current inflammation.
B. is indicative of past inflammation.
C. has a high positive predictive value (PPV) for further attachment loss.

A radiograph displaying a “cotton-wool” appearance and generalized hypercementosis is suggestive of

A. fibrous dysplasia.
B. osteopetrosis.
C. osteogenesis imperfecta.
D. Paget’s disease.
E. cleidocranial dysplasia.

Anesthetic solution deposited at the infraorbital foramen will NOT anesthetize the

A. skin and conjunctivum of the lower eyelid.
B. skin and mucous membrane of the upper lip.
C. median strip of skin of the nose.
D. maxillary anterior teeth.
E. mucosa of the anterior wall of the maxillary sinus.

The difference between gingivitis and periodontitis is

A. radiographic changes are present only in gingivitis.
B. radiographic changes are present only in periodontitis.
C. changes in gingival colour are present only in gingivitis.
D. changes in gingival colour are present only in periodontitis.

A person who has sickle cell anemia may show certain radiographic changes in the bones of the skull. These changes may be

A. “punched out” radiolucent lesions.
B. a moth-eaten appearance of the bone.
C. gross irregularities with exostosis formation.
D. a “hair on end” effect.

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Where cavity preparations are extensive, polycarboxylate cement can be used as a base material because

A. its pH stimulates secondary dentin formation.
B. it interacts with setting amalgam to form a weak chemical union.
C. it is biocompatible with the pulp.
D. it is compressible when set.

Which of the following orthodontic alloy wires has the greatest effectiveness of activation?

A. Nickel-titanium.
B. Stainless-steel.
C. β-titanium.
D. Cobalt chromium.

Patterns of exposure to a risk factor in a population is important because it helps

A. understand where preventive interventions can be targeted.
B. define the prevalence of a disease.
C. define the population attributable fraction of a disease.
D. give an insight into what statistical tests to use.

Which of the following is LEAST likely to cause swelling of the gingiva adjacent to an endodontically treated tooth?

A. Internal root resorption.
B. Vertical root fracture.
C. Periradicular abscess.
D. Periodontal abscess.

The primary function of root canal sealer is to

A. prevent discolouration of the tooth.
B. stimulate healing in the apical region.
C. medicate the canal to eliminate remaining bacteria.
D. fill space between gutta-percha and pulp canal wall.

Loops and helices in orthodontic arches result in

1. a decreased level of force application.
2. a greater range of activation.
3. improved tissue response.
4. easier insertion.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

When comparing ibuprofen and celecoxib used in therapeutic doses, which of the following statements is true?

A. Ibuprofen inhibits mostly COX-1, celecoxib inhibits mostly COX-2.
B. Ibuprofen inhibits both COX-1 and COX-2, celecoxib inhibits mostly COX-2.
C. Ibuprofen inhibits mostly COX-1, celecoxib inhibits both COX-1 and COX-2.
D. Both ibuprofen and celecoxib are potent inhibitors of COX-1 and COX-2.

A patient successfully treated 8 years ago for moderate chronic periodontitis now presents with generalized erythematous and edematous gingiva with bleeding on probing. There is no clinical or radiographic evidence of further attachment loss. The most likely diagnosis is

A. gingivitis.
B. chronic periodontitis.
C. aggressive periodontitis.
D. recurrent periodontitis.

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In an Angle’s Class I occlusion, the cusp of which permanent tooth is in contact with the central fossa of the mandibular first molar?

A. Mesiolingual cusp of the maxillary first molar.
B. Distolingual cusp of the maxillary first molar.
C. Mesiolingual cusp of the maxillary second molar.
D. Distolingual cusp of the maxillary second molar.

What is the most probable syndrome affecting a 9 year old patient with a history of 3 keratocystic odontogenic tumours?

A. Nevoid basal cell carcinoma syndrome (Gorlin Syndrome).
B. Familial colorectal polypons (Gardner’s Syndrome).
C. Crouzon Syndrome.
D. Apert Syndrome.

Hardening of Type IV cast gold dental alloys by heat treatment increases

A. ductility.
B. yield strength.
C. coring.
D. elastic modulus.
E. malleability.

Which of the following conditions are associated with AIDS?

1. Acute marginal periodontitis.
2. Hairy leukoplakia.
3. Candidiasis.
4. Geographic tongue.

A. (1) and (2)
B. (1) (2) (3)
C. (1) and (4)
D. All of the above.

Which of the following dental procedures could be performed with minimal risk for a 35-year old patient with a severe bleeding disorder?

A. Mandibular block anesthesia.
B. Supragingival calculus removal.
C. Incisional biopsy.
D. Subgingival restoration.

The air-water spray used as a coolant in high speed cutting of a cavity will

1. decrease pulp damage.
2. reduce frictional heat.
3. keep the operating site clean.
4. reduce clogging of cutting instruments.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Excessive orthodontic force used to move a tooth may

1. cause hyalinization.
2. cause root resorption.
3. crush the periodontal ligament.
4. impair tooth movement.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

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The proper placement of a lower universal extraction forceps for the removal of tooth 4.6 involves placing the beaks of the forceps

A. as far apically on the tooth root as possible and applying apical pressure during luxation.
B. on the lingual and buccal enamel of the crown and applying apical pressure during luxation.
C. at the cementoenamel junction of the tooth and gently pulling upward during luxation.
D. as far apically on the tooth root as possible and gently pulling upward during luxation.
E. at the cementoenamel junction of the tooth and applying a rotational force during luxation.

Orthopedic correction of a mild skeletal Class III malocclusion with spacing due to a combination of vertical and anteroposterior maxillary deficiency should be started

A. just prior to the pre-pubertal growth spurt.
B. immediately following the pre-pubertal growth spurt.
C. shortly after eruption of the upper first permanent molars.
D. shortly after eruption of the upper second permanent molars.

On a bite-wing radiograph of posterior teeth, which of the following is most likely to be misdiagnosed as proximal caries?

A. Cemento-enamel junction.
B. Marginal ridge.
C. Carabelli cusp.
D. Calculus.
E. Cemental tear.

Condensing osteitis in the periapical region is indicative of a/an

A. acute inflammation of the pulp.
B. pulpal abscess.
C. chronic inflammation of the pulp.
D. early apical abscess formation.
E. None of the above.

The short action of thiopental is due to

A. rapid redistribution.
B. rapid renal excretion.
C. rapid metabolism.
D. build up of tolerance.
E. conjugation with serum proteins.

Marginal gingiva

A. is demarcated from the attached gingiva by the free gingival groove.
B. is demarcated from the attached gingiva by the mucogingival junction.
C. is firmly attached to the tooth.

Root resorption of primary teeth can be retarded by

A. the absence of a permanent replacement.
B. the premature loss of adjacent primary teeth.
C. the presence of premature occlusal contact.
D. inflammation of the pulp.
E. occlusal crossbite.

Bone loss at menopause accelerates because estrogens

A. are necessary for calcium absorption from the small intestine.
B. inhibit bone resorbing cytokine synthesis.
C. inhibit osteoblast activity.
D. promote osteoclast proliferation and differentiation.

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Which of the following is NOT a sign of occlusal trauma?

A. Fremitus.
B. Gingival recession.
C. Widened periodontal ligament.
D. Tooth migration.

Which of the following tumors may arise in the parotid salivary gland?

1. Mixed tumor.
2. Adenocarcinoma.
3. Warthin's tumor.

What is the most appropriate medication to control the dental pain following the adjustment of orthodontic appliances?

A. Acetaminophen.
B. Ibuprofen.
C. Naproxen.
D. Aspirin.

Water irrigation devices have been shown to

A. eliminate plaque.
B. dislodge food particles from between teeth.
C. disinfect pockets for up to 18 hours.
D. prevent calculus formation.

Which of the following drugs is most appropriate first line management for a patient experiencing an acute asthmatic attack?

A. Isoproterenol.
B. Salbutamol.
C. Epinephrine.
D. Hydrocortisone.

What is the most probable complication of a local anesthetic injection into the parotid gland?

A. Infection.
B. Trismus.
C. Diplopia.
D. Facial paralysis.

A protective mechanism of the dental pulp to external irritation or caries is the formation of

A. pulp stones.
B. tertiary dentin.
C. secondary cementum.
D. primary dentin.

Periapical infection from a mandibular second molar may spread by direct extension to the

1. buccal space.
2. buccal vestibule.
3. sublingual space.
4. submandibular space.

Short-acting barbiturates are metabolized mainly in the

A. liver.
B. kidneys.
C. small intestine.
D. pancreas.
E. spleen.

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Which of the following is essential for successful periodontal treatment?

A. Scaling.
B. Final evaluation and maintenance on a one-year recall.
C. Periodontal surgery.
D. Elimination of local etiologic factors through plaque control.

Which of the following milliamperage/kilovoltage combinations results in an X-ray beam with the most penetration?

A. 10kVp - 65ma.
B. 85kVp - 5ma.
C. 90kVp - 10ma.
D. 65kVp - 15ma.
E. 75kVp - 40ma.

If a complete mandibular denture causes a burning sensation in the premolar region, this is due to the denture exerting pressure in/on the

A. fibres of the buccinator muscle.
B. lingual branch of the mandibular division of the trigeminal nerve.
C. underlying bone.
D. mental branch of the inferior alveolar nerve.
E. buccal frenum area.

Which of the following is/are NOT usually affected by hereditary ectodermal dysplasia?

A. Salivary glands.
B. Teeth.
C. Sweat glands.
D. Hair.
E. Fingernails.

Fordyce's granules are

A. ectopic sebaceous glands.
B. ectopic sweat glands.
C. small calcified nodules.
D. aberrant mucous glands.

After the application of heat, pain in a tooth lasts for approximately 10 minutes. What is the most likely diagnosis?

A. Acute periradicular abscess.
B. Acute irreversible pulpitis.
C. Total pulpal necrosis.
D. Early periradicular periodontitis.

The antithrombotic effects of acetylsalicylic acid may be compromised by

A. codeine.
B. acetaminophen.
C. ibuprofen.
D. tramadol.

A primary infection of syphilis occurring on the tongue is referred to as a/an

A. herpetic ulcer.
B. aphthous ulcer.
C. gummata.
D. chancre.
E. mucous patch.

Oral leukoplakia has the most favourable prognosis when it is

A. present in a non-smoker.
B. accompanied by pain.
C. infected with Candida albicans.
D. speckled in appearance.
E. on the hard palate.
Excessive formation of scar tissue beyond the wound margin is called
A. a fibroma.
B. a keloid.
C. a fibro-epithelial polyp.
D. epithelial hyperplasia.

Loss of taste to the anterior two thirds of the tongue and a lack of secretion of submandibular glands indicates nerve damage to the
A. mandibular division of cranial V.
B. long buccal nerve.
C. chorda tympani nerve.
D. cranial VII.

A sedative drug should
A. cause excitement.
B. eliminate all sensation.
C. produce unconsciousness.
D. produce a mild state of central nervous system depression.

Hypernatremia may be induced by
A. elevated synthesis of atrial natriuretic peptide.
B. excessive vasopressin secretion.
C. impaired aldosterone secretion.
D. diabetes insipidus.

Temporo Mandibular Joint disease in children results from
A. rheumatoid arthritis.
B. middle ear infection.
C. trauma.
D. heredity.
E. All of the above.

The greatest period of cranial growth occurs between
A. birth and 5 years.
B. 6 and 8 years.
C. 10 and 12 years.
D. 14 and 16 years.

Space closure is LEAST likely to occur following the premature loss of the primary
A. maxillary second molar.
B. mandibular second molar.
C. maxillary first molar.
D. mandibular canine.
E. maxillary central incisor.

Multiple giant cell lesions of the bone are associated with
A. hyperthyroidism.
B. hypothyroidism.
C. hyperparathyroidism.
D. hypoparathyroidism.

A patient with pain, fever and unilateral parotid swelling following a general anesthetic most likely has
A. Mumps.
B. sialolithiasis.
C. acute bacterial sialadenitis.
D. Sjögren’s syndrome.
E. sarcoidosis.

For an adult patient, the recommended time interval between bitewing radiographic examination for the detection of dental caries is
A. 6 months.
B. 12 months.
C. 24 months.
D. dependent upon caries risk.

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The design of a mucoperiosteal flap should

1. provide for visual access.
2. provide for instrument access.
3. permit repositioning over a solid bone base.
4. be semilunar in shape.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Anaphylactic reaction to penicillin is most likely to occur

1. when the drug is administered parenterally.
2. within minutes after drug administration.
3. in patients who have already experienced an allergic reaction to the drug.
4. in patients with a negative skin test to penicillin allergy.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Embryologically, fusion of the palatal shelves should be completed by the

A. fifth week.
B. tenth week.
C. sixteenth week.
D. twentieth week.

In a developing crown, ameloblasts and odontoblasts

A. are polarized in opposite directions.
B. initially produce an organic nonmineralized matrix.
C. begin to produce matrix simultaneously.
D. have rapid cell division.

Roots of the permanent maxillary central incisors are completed by what age?

A. 8 years.
B. 10 years.
C. 12 years.
D. Later than 12 years.

The best way to disinfect gutta-percha cones prior to obturation is to

A. immerse in a 5.25% sodium hypochlorite solution.
B. immerse in ethyl alcohol.
C. autoclave for a full cycle.
D. wipe with an alcohol soaked gauze.

A pleomorphic adenoma is characterized by

A. metastases.
B. recurrence.
C. pain.
D. ulceration.

The condyle of the mandible is unique because

A. it develops from Meckel's cartilage.
B. both interstitial and appositional bone formation are present.
C. both primary and secondary cartilage growth centres are present.

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Varying the mercury content of an amalgam results in which of the following?

A. The higher the mercury content the greater the strength.
B. The higher the mercury content the less the flow.
C. The lower the mercury content the greater the flow.
D. The lower the mercury content the greater the strength.

In periodontal therapy, “guided tissue regeneration” is most successful in treating

1. horizontal bone loss.
2. a 3-walled infrabony defect.
3. a mandibular Class III furcation involvement.
4. a mandibular Class II furcation involvement.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only.
E. All of the above.

Which of the following drugs is most likely to induce photosensitivity?

A. Tetracycline.
B. Metronidazole.
C. Acetaminophen.
D. Oxycodone.

Generally, glass ionomer cements contain

A. zinc oxide and distilled water.
B. zinc oxide and polyacrylic acid.
C. fluoroaluminosilicate powder and orthophosphoric acid.
D. fluoroaluminosilicate powder and polyacrylic acid.

Exclusive of third molars, the permanent dentition is usually completely erupted by the age of

A. 9 to 11 years.
B. 12 to 14 years.
C. 15 to 17 years.
D. 18 to 21 years.

When given prophylactically to prevent infective endocarditis, oral amoxicillin should be taken

A. immediately prior to the dental procedure.
B. one hour prior to the dental procedure.
C. four hours prior to the dental procedure.
D. one day prior to the dental procedure.
E. two days prior to the dental procedure.

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An occlusal rest preparation should be
A. angular and box shaped with parallel vertical walls.
B. rounded and spoon shaped.
C. flat and with an obtuse angle to the proximal surface of the tooth.

The treatment of an ameloblastoma is
A. chemotherapy.
B. enucleation.
C. resection.
D. radiotherapy.

An occlusal rest should be prepared so that
A. occlusal forces are directed perpendicular to the long axis of the tooth.
B. occlusal forces are directed parallel to the long axis of the tooth.
C. occlusal forces are concentrated near the marginal ridge.
D. the tooth is prevented from rotating.

What is the most appropriate medication to manage postoperative pain for an asthmatic patient taking beclomethasone and salbutamol?
A. Acetylsalicylic acid.
B. Acetylsalicylic acid/codeine combination.
C. Ibuprofen.
D. Acetaminophen/codeine combination.
E. Naproxen.

Hypothyroidism affects the dental developmental pattern by
A. interfering with jaw growth.
B. delaying the eruption timetable.
C. causing sclerotic bone to form over the occlusal surface of erupting teeth.
D. accelerating the eruption timetable.

In permanent teeth, two pulp canals are most commonly found in the
A. distobuccal root of maxillary molars.
B. distal root of mandibular first molars.
C. palatal root of maxillary first premolars.
D. mesial root of mandibular first molars.

Which of the following procedures will NOT improve the retention of a fissure sealant?
A. Use of separate etching and bonding agents rather than a self-etching bonding agent.
B. Roughening of the enamel with a diamond bur.
C. Maintaining a dry field until the sealant is set.
D. Use of a bonding agent prior to sealant application.

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A. Acetylsalicylic acid.
B. Acetylsalicylic acid/codeine combination.
C. Ibuprofen.
D. Acetaminophen/codeine combination.
E. Naproxen.

Hypothyroidism in adults is associated with
A. exophthalmos.
B. weight loss.
C. generalized edema.
D. tachycardia.
E. mental defects.

Nitrous oxide
1. provides good muscle relaxation.
2. is non-explosive and non-flammable.
3. is a potent anesthetic.
4. provides rapid induction and recovery.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

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A dry and crumbly mix of amalgam can be the result of
A. under trituration.
B. over trituration.
C. high copper content.
D. lack of zinc content.

Which of the following can be mistaken on a radiograph for a chronic alveolar abscess?
1. Mental foramen.
2. Periapical cemento-osseous dysplasia.
A. (1)(2)(3)
B. (1) et (3)
C. (2) et (4)
D. (4) seulement
E. Tous les énoncés ci-dessus.

Metronidazole has been prescribed for a patient taking warfarin daily for the last 2 years. Which of the following must be closely monitored?
A. Platelet count.
B. Hematocrit.
C. Bleeding time.
D. INR.

After the age of 6 years, growth of the mandible is greatest
A. at the symphysis.
B. between canines.
C. along the lower border.
D. posterior to first molars.

A fracture through the angle of the mandible may result in an upward displacement of the proximal fragment. Which of the following groups of muscles produce this movement?
A. Digastric and geniohyoid.
B. Masseter, digastric and lateral pterygoid.
C. Masseter, temporal and lateral pterygoid.
D. Masseter, temporal and medial pterygoid.

What is the earliest age to confirm the diagnosis of a congenitally missing mandibular second premolar?
A. 1 year.
B. 3 years.
C. 5 years.
D. 7 years.

Aspiration is carried out prior to a local anaesthetic injection in order to reduce the
A. toxicity of local anaesthetic.
B. toxicity of vasoconstrictor.
C. possibility of intravascular administration.
D. possibility of paraesthesia.

The polymerization of methyl methacrylate is
A. endothermic.
B. hydrophilic.
C. hydrolytic.
D. exothermic.

An overjet of 8mm is most often associated with
A. Class I cusp relationship.
B. Class II cusp relationship.
C. Class III cusp relationship.

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Appropriate collimation of the X-ray beam for the film size reduces

1. image definition.
2. secondary radiation.
3. radiographic contrast.
4. radiation dose.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only.
E. All of the above.

Possible side effects of therapeutic doses of codeine are

1. constipation.
2. drowsiness.
3. nausea.
4. respiratory depression.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Multiple supernumerary teeth are most commonly found in

A. cherubism.
B. cretinism.
C. hypothyroidism.
D. cleidocranial dysplasia.
E. Down’s syndrome.

The most reliable measurement of the effectiveness of scaling and root planing at re-evaluation 4-6 weeks later is

A. root smoothness.
B. absence of plaque.
C. absence of bleeding upon probing.
D. increased subcural fluid flow.

A 72 year old male patient complains of bone pain, fever and fatigue. Clinical examination shows petechiae on the skin and oral mucosa. The tongue has a nodular appearance. A craniofacial radiograph shows punched-out radiolucencies. The most likely diagnosis is

A. Burkitt’s lymphoma.
B. chondrosarcoma.
C. acute lymphocytic leukemia.
D. multiple myeloma.

Of the ages listed below, the youngest age at which tetracycline ingestion will NOT cause discoloration of any tooth crowns except third molars is

A. 6 months in utero.
B. 5 years.
C. 10 years.
D. 15 years.

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Myxedema is associated with
A. insufficient parathyroid hormone.  
B. excessive parathyroid hormone.  
C. insufficient thyroid hormone.  
D. excessive thyroid hormone.  

Which porcelain stain colour is added to give the appearance of translucency?
A. Grey.  
B. Blue.  
C. Yellow.  
D. White.  
E. Orange.

A patient with complete dentures complains of clicking. The most common causes are
A. reduced vertical dimension and improperly balanced occlusion.  
B. excessive vertical dimension and poor retention.  
C. use of too large a posterior tooth and too little horizontal overlap.  
D. improper relation of teeth to the ridge and excessive anterior vertical overlap.  

Which of the following complications might occur after administration of a local anesthetic agent?
1. Convulsions.  
2. Nausea.  
3. Respiratory depression.  
4. Cardiovascular collapse.  
A. (1) and (3)  
B. (1) (3) (4)  
C. (2) and (3)  
D. (3) and (4)  
E. All of the above.

Which of the following analgesics is CONTRAINDICATED for the long-term management of myofascial pain syndrome?
A. Acetylsalicylic acid with codeine.  
B. Ibuprofen.  
C. Oxycodone.  
D. Acetaminophen with codeine.

The primary retention of a Class II gold inlay is achieved by
1. adding an occlusal dovetail.  
2. increasing the parallelism of walls.  
3. lengthening the axial walls.  
4. placing a gingival bevel.  
A. (1) (2) (3)  
B. (1) and (3)  
C. (2) and (4)  
D. (4) only  
E. All of the above.

What is the most appropriate time to extract a mesiodens?
A. As soon as diagnosed.  
B. Just prior to the eruption of the first permanent molars.  
C. Just prior to the eruption of the maxillary central incisors.  
D. Just prior to the eruption of the maxillary canines.

The significant factor in the correction of an anterior cross-bite is the
A. age of patient.  
B. depth of cross-bite.  
C. shape of the tooth involved.  
D. space available mesiodistally.

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A definitive diagnosis of osteosarcoma is established by
A. radiographic examination.
B. clinical examination.
C. aspiration cytology.
D. biopsy.

Which of the following would require a custom incisal guide table for a patient with mutually protected occlusion?
A. A fixed partial denture from tooth 3.5-3.7.
B. An all ceramic crown on tooth 4.7.
C. A fixed partial denture from tooth 1.1-1.3.
D. A single ceramometal crown on tooth 1.4.

Proper collimation of the useful beam for film size and target-film distance reduces
A. image definition.
B. secondary radiation.
C. radiographic contrast.
D. intensity of the central beam.

When performing an intraoral incision and drainage of a dentoalveolar abscess, which of the following is/are true?
1. The scalpel incision should be made superficially through mucosa.
2. The incision should be only large enough to allow placement of a drain.
3. The underlying tissue dissection is performed bluntly.
4. The purpose of a drain is to keep the incision open.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Root caries risk in adults is
1. associated with previous enamel caries experience.
2. reduced in communities with fluoridated water.
3. greater in adults who have high *streptococcus mutans* counts.
4. similar in institutionalized and non-institutionalized patients.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

In composite resin restorations, glass ionomer cements can be used as a base because they are
A. sedative to a hyperemic pulp.
B. neutral in colour.
C. biocompatible.
D. compatible with the expansion of composite resins.

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In primary teeth, a pulpotomy using calcium hydroxide
A. will cause an acute inflammatory reaction.
B. is successful treatment in 90 percent of cases.
C. will cause internal resorption.
D. is the treatment of choice for small mechanical exposures.
E. will stimulate apical closure.

Caries in older persons is most frequently found on which of the following locations?
A. Pits and fissures.
B. Proximal enamel.
C. Root surfaces.
D. Incisal dentin.

Which of the following methods of cavity preparation is most likely to cause damage to the pulp?
A. Ultra high speed and water spray.
B. Ultra high speed and no water spray.
C. Conventional speed and no water spray.
D. Conventional speed and water spray.

Which antibiotic is primarily bactericidal?
A. Penicillin.
B. Erythromycin.
C. Tetracycline.
D. Chloramphenicol.
E. Clindamycin.

The most appropriate oral drugs for control of anxiety in a dental patient are
A. benzodiazepines.
B. phenothiazines.
C. barbiturates.
D. tricyclic antidepressants.

Bruxism may be associated with
1. premature contacts in the centric relation.
2. balancing prematurities.
3. stress.
4. anxiety.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following teeth is most likely to have two roots and two canals?
A. Maxillary second premolar.
B. Mandibular second premolar.
C. Maxillary first premolar.
D. Mandibular first premolar.
A large carious exposure occurs on a permanent first molar of a 7 year old. There is no periapical involvement and the tooth is vital. The treatment should be to

A. cap the exposure with calcium hydroxide and place zinc-oxide and eugenol.
B. perform a pulpotomy and place calcium hydroxide.
C. perform a pulpectomy.
D. extract the tooth and place a space maintainer.

A patient with a white blood cell count of 34,000/mm$^3$ has a differential of lymphocytes 62%, lymphoblasts 4% and polymorphonuclear leukocytes 34%. The most likely form of leukemia is

A. aleukemic.
B. granulocytic.
C. monocytic.
D. lymphocytic.
E. plasma cell.

The risk of latex allergy increases with a/an

1. increased exposure to latex.
2. history of spina bifida.
3. history of allergy to bananas, chestnuts or avocado.
4. history of eczema.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Proper collimation of the useful beam for the film size and target-film distance will reduce

1. image definition.
2. secondary radiation.
3. radiographic contrast.
4. radiation received by patient.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The presence of more than $10^4$ copies/mL of hepatitis B DNA in blood is indicative of

A. a past exposure to hepatitis B with immunity.
B. recovery from hepatitis B with liver damage.
C. a highly infectious individual.
D. an inconclusive immune status.

Which of the following dental materials shows a chemical bond to clean dentin?

A. Calcium hydroxide.
B. Zinc-phosphate.
C. Zinc-oxide and eugenol.
D. Glass ionomer.
Which of the following is/are associated with xerostomia?

1. Atropine administration.
2. Acute anxiety state.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Pernicious anemia may cause

A. glossitis.
B. lingual ulceration(s).
C. parotid swelling.
D. gastric hyperacidity.

A fracture is considered to be favourable when

A. healing is expected to be uncomplicated.
B. operating time will be short.
C. fragments are not displaced by muscle pull.
D. not exposed to the oral environment.

A pontic replacing a mandibular first molar should be designed so that it(s)

1. gingival surface is concave and adapts closely to the ridge.
2. has open gingival embrasures.
3. conceals the porcelain to metal junction on its gingival surface.
4. gingival surface is convex in all directions.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Following the removal of a vital pulp, a root canal is medicated and sealed. The patient returns with an acute periradicular periodontitis. The most probable cause is

A. overinstrumentation.
B. lateral perforation.
C. incorrect medication.
D. pulp tissue left in the root canal.
E. infection.

Adrenal corticosteroids

A. increase heart rate.
B. cause vasodilation.
C. increase gastric motility.
D. reduce inflammation.

Which microorganism does NOT contribute significantly to the progression of dentinal caries?

A. Actinomyces naeslundii.
B. Lactobacillus casei.
C. Actinomyces viscosus.
D. Streptococcus salivarius.

The angle SNA can be used to evaluate the

A. maxillary protrusion.
B. overbite.
C. upper incisor inclination.
D. facial height.
E. mandibular angle.

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During an incisal clench, the activity of the elevator muscles is

A. increased.
B. decreased.
C. unaffected.

Oral signs and/or symptoms of advanced vitamin C deficiency include

1. pain.
2. angular cheilitis.
3. spontaneous hemorrhage of the gingiva.
4. xerostomia.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following is NOT considered a risk factor for periodontal disease?

A. Diabetes.
B. Genetics.
C. Heart disease.
D. Tobacco use.

The occlusal parameter most useful to differentiate between an overbite of dental or skeletal origin is the

A. mandibular curve of Spee.
B. mandibular curve of Wilson.
C. maxillary curve of Wilson.
D. maxillary incisors morphology.
E. maxillary lip length.

Pre-operative endodontic radiographs will show the

A. presence of a pulp exposure.
B. exact location of the apical foramen.
C. presence of active infection.
D. vitality of the pulp.
E. size of the pulp chamber and root canal(s).

When developer solution is old and oxidized, radiographs will appear

A. blue.
B. brown.
C. gray.
D. black.

Following periodontal surgery, the most important factor to promote healing is

A. a salt water rinse.
B. thorough plaque control.
C. gingival massage.
D. leaving the site undisturbed for a period of 3 months.
Which of the following is necessary to make a diagnosis of an odontogenic keratocyst (keratocystic odontogenic tumour)?

A. Aspiration cytology.
B. Exfoliative cytology.
C. Radiographic examination alone.
D. Histopathologic examination.

Which of the following is NOT a sign or symptom of the myofascial pain dysfunction syndrome?

A. Pain.
B. Muscle tenderness.
C. Limitation of jaw motion.
D. "Clicking" or "popping" noise in the joints.
E. Radiographic changes of the joint.

A 14 year old boy presents with bilateral white thickening of the buccal mucosa which has been present since birth. His brother has similar lesions. The most likely diagnosis is

A. leukoplakia.
B. lichen planus.
C. mucous patches.
D. white sponge nevus.

The maxillary central incisors of a 2 year old child have been traumatically intruded 4mm. Immediate treatment is to

A. carefully remove both incisors.
B. reposition the intruded teeth.
C. make the patient comfortable without disturbing the teeth.
D. reposition and splint the intruded teeth.

Which of the following is consistent with a diagnosis of complete pulpal necrosis?

A. Poorly localized spontaneous pain.
B. Positive response to hot and cold tests.
C. No response to electric pulp testing.
D. Extreme pain elicited by palpation and percussion tests.

Histological sections of a lesion removed from the apex of a carious tooth show fibrous tissue and chronic inflammatory cells. The most likely diagnosis is a/an

A. acute periradicular abscess.
B. odontogenic fibroma.
C. periradicular cyst.
D. periradicular granuloma.
E. central ossifying fibroma.

The aluminum filter in an x-ray machine prevents which of the following from reaching the patient?

A. Long wave length x-rays.
B. High frequency x-rays.
C. X-rays at the edge of the x-ray beam.
D. Gamma radiation.

The primary function of gingival retraction cord is to

A. ensure adequate impression material in the sulcus.
B. displace the epithelial attachment.
C. control the salivary flow.
D. eliminate the intrasulcular debris.

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Which one of the following factors is LEAST important in determining the appropriate dose of drug for a patient?

A. Weight.
B. Medical history.
C. Age.
D. Gender.

A 35 year old female patient has multiple petechial hemorrhages of the right and left buccal mucosae. Which of the following is the most likely laboratory finding?

A. Anemia.
B. Prolonged PTT.
C. Elevated INR.
D. Thrombocytopenia.

A radiopaque area within the alveolar process containing several rudimentary teeth suggests a/an

A. periapical cemento-osseous dysplasia.
B. ameloblastoma.
C. compound odontoma.
D. complex odontoma.
E. Pindborg tumor.

Which of the following are characteristic symptoms of acute pulpitis?

1. Spontaneous throbbing pain.
2. Prolonged pain initiated by heat.
3. Pain on percussion.
4. Increased pain by cold.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

During radiographic film processing, silver halide is removed from the emulsion during the

A. developing stage.
B. post-developing rinse stage.
C. fixing stage.
D. post-fixing wash stage.

A tongue thrust is most often found in a child with

A. a deep overbite.
B. an anterior open-bite.
C. a Class II, division 2 malocclusion.
D. a bi-maxillary protrusion.

The roots of the first permanent molar should be completely formed by the age of

A. six years.
B. seven years.
C. nine years.
D. eleven years.
E. thirteen years.

The etiologic agent for necrotizing ulcerative gingivitis (NUG) is

A. bacterial.
B. viral.
C. fungal.
D. protozoan.

An excisional biopsy of a nodule 5mm in diameter on the lateral border of the tongue was diagnosed as a fibroma. This patient should have

A. hemisection of the tongue.
B. radiotherapy to site of biopsy.
C. no additional therapy.
D. re-excision with wider margins.
E. radium implantation around biopsy site.
The most appropriate management for a gingival cyst of the newborn is
A. curettage.
B. incisional biopsy.
C. cytolologic smear.
D. excisional biopsy.
E. observation.

Among the following, which may be associated with root resorption?
1. Excessive orthodontic forces.
2. Periapical granuloma.
3. Cementoma.
4. Hypercementosis.
5. Traumatic injury.
A. (1) (2) (4)
B. (1) (2) (4) (5)
C. (1) (2) (5)
D. (1) (2) (3) (5)
E. All of the above.

A 50 year old woman has a history of rheumatoid arthritis, bilateral enlargement of one or more salivary glands and lacrimal glands, as well as dryness of the eyes, nose, mouth and throat. The diagnosis is
A. erythema multiforme.
B. Reiter's syndrome.
C. Gardner's syndrome.
D. Sjögren's syndrome.
E. Plummer-Vinson syndrome.

It is ethical to replace amalgam restorations
A. on request from an informed patient.
B. to relieve symptoms of multiple sclerosis.
C. to reduce the risk of developing Alzheimer’s disease.
D. to eliminate toxins from the patient.

The pterygomaxillary fissure is formed by the maxilla and which other bone?
A. Temporal.
B. Sphenoid.
C. Frontal.
D. Occipital.

In which of the following pathological conditions would a lower central incisor tooth be expected to respond to heat, cold and an electric pulp test?
A. Chronic periodontal abscess.
B. Acute periodontal abscess.
C. Periapical cemento-osseous dysplasia.
D. Chronic periodontal periodontitis.

A 32 year old female patient complains of fever, weight loss and general malaise. She has a rash on the malar area and nose, as well as some irregularly shaped ulcerations on the buccal mucosa. The most likely diagnosis is
A. lichen planus.
B. lupus erythematosus.
C. erythema multiforme.
D. bullous pemphigoid.
E. pemphigus.
Surgery of irradiated bone is complicated by the fact that the
1. original neoplasm may invade the area of surgery.
2. bone becomes brittle.
3. patients are immunocompromized.
4. sclerosed blood vessels compromise healing.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Plaque accumulation on tooth surfaces is affected by
A. the anatomy, position and surface characteristics of the teeth.
B. the architecture of the gingival tissues and their relationship to the teeth.
C. friction at the tooth surface from the diet, lips and tongue.
D. All of the above.

Swelling related to increased tissue fluid is called
A. thrombosis.
B. edema.
C. hematoma.
D. embolism.
E. surgical emphysema.

The redness of an inflammatory lesion of oral mucosa is due to
A. increased number of capillaries.
B. increased size of capillaries.
C. decreased thickness of epithelium.
D. decreased connective tissue elements.
E. All of the above.

Nystatin is the drug of choice for
A. aphthous stomatitis.
B. candidiasis.
C. periodontal abscess.
D. necrotizing ulcerative gingivitis (NUG).

Dental polysulfide rubber impression materials are polymerized with the following initiator:
A. lead peroxide.
B. sodium peroxide.
C. carbon disulfide.
D. hydrogen peroxide.
E. phosphorus pentoxide.

Which of the following is the LEAST likely primary site for the development of oral squamous cell carcinoma in the elderly?
A. Dorsum of the tongue.
B. Floor of the mouth.
C. Lateral border of the tongue.
D. Tonsillar fossa.

A major difference between stable angina pectoris and myocardial infarction is that stable angina pectoris does NOT involve
A. crushing substernal pain.
B. ischemic myocardial necrosis.
C. occlusive coronary artery disease.
D. atherosclerosis.
E. females under the age of 80 years.

The most appropriate management of a noncavitated, smooth surface carious lesion is
A. placing an amalgam restoration.
B. placing a composite restoration.
C. applying topical fluoride.
D. prescribing a chlorhexidine rinse.
E. observation.

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Opioids would be CONTRAINDICATED for the management of
A. pain.
B. severe cough.
C. diarrhea.
D. depression.

When smokers are compared to nonsmokers, probing depths after surgical periodontal treatment are
A. greater.
B. smaller.
C. the same.

Prognosis for a patient with oral squamous cell carcinoma depends upon which of the following factors?
1. Size of the tumor.
2. Location of the tumor.
3. Lymph node involvement.
4. Symptoms.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following is NOT associated with Cushing’s disease?
A. Buffalo hump.
B. Osteoporosis.
C. Hirsutism.
D. Hypertension.
E. Diabetes insipidus.

Smoker’s melanosis
A. is painful.
B. may be pre-cancerous.
C. most commonly affects the anterior gingiva.
D. resolves within a few weeks after quitting smoking.

Polysulfide impression materials
A. have a lower "tear strength" than condensation silicone.
B. have a better dimensional stability than addition cured silicones.
C. have a better detail reproduction than both condensation and addition polymerization silicones.
D. demonstrate, after polymerization, cross-linking chains.

The major disadvantage of zinc phosphate used to cement crowns is the
A. development of heat during setting.
B. pulp irritation.
C. lack of edge strength.
D. low crushing strength.
A bacterial infection causes the most significant increase in

A. basophils.
B. neutrophils.
C. lymphocytes.
D. monocytes.
E. eosinophils.

Which of the following anatomic spaces is most likely to be involved as a result of an apical infection of a mandibular third molar?

A. Sublingual.
B. Submandibular.
C. Submental.
D. Submasseteric.

Which of the following may affect the results of electric pulp testing?

1. Patient anxiety.
2. Pain threshold.
3. Analgesics.
4. Recent trauma.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A protective bite plate is indicated in all of the following EXCEPT to

A. reduce tooth mobility.
B. prevent excessive tooth wear.
C. control a bruxism habit.
D. manage temporomandibular joint pain dysfunction syndrome.
E. prevent migration of teeth.
A 10 year old patient is missing a permanent maxillary left lateral incisor. There are no other orthodontic problems. A dental implant is planned when the patient is an adult. The most appropriate management is to

A. extract the primary maxillary left canine as soon as possible.
B. encourage the permanent left canine to erupt into an Angle’s Class I relationship.
C. let the permanent canine erupt into a mesial position and reposition it into an Angle’s Class I as soon as possible.
D. let the permanent canine erupt into a mesial position and reposition it into an Angle’s Class I before placing the implant.
E. let the permanent canine erupt into a mesial position and place the implant distal to the canine.

The washing of hands must be performed before putting on and after removing gloves because it

1. reduces the number of skin bacteria which multiply and cause irritation.
2. completely eliminates skin bacteria.
3. minimizes the transient bacteria which could contaminate hands through small pinholes.
4. allows gloves to slide on easier when the hands are moist.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Gingival crevicular fluid

A. never varies in volume.
B. is a transudate.
C. is derived from mast cells.
D. is an exudate.
E. B. and D.

In Turner’s syndrome, the patient is most likely to exhibit

A. delayed tooth eruption.
B. micrognathia.
C. a wide maxilla.
D. oligodontia.

In a fixed bridge, the most favorable ratio for an abutment tooth is when the root

A. and clinical crown are equal in length.
B. is twice the length of the clinical crown.
C. is half the length of the clinical crown.
Which of the following basic forcep movements is NOT used for extracting teeth?

A. Apical.
B. Rotational.
C. Mesial.
D. Lingual (palatal).

In a 17 years old, which traumatic dental injury is most likely to result in pulp necrosis on tooth 1.1?

A. Extrusion.
B. Intrusion.
C. Luxation.
D. Subluxation.

Regarding dental caries, which of the following is correct?

A. All carbohydrates are equally cariogenic.
B. More frequent consumption of carbohydrates increases the risk.
C. The rate of carbohydrate clearance from the oral cavity is not significant.
D. Increased dietary fat increases the risk.

Molecular attraction between unlike substances is called

A. adhesion.
B. cohesion.
C. syneresis.
D. absorption.

The first sign of a toxic reaction to an injected local anesthetic solution would be

A. convulsions.
B. erythematous rash.
C. asthmatic attack.
D. excitement.

An acute periapical abscess originating from a mandibular third molar generally points and drains in the

A. submandibular space.
B. pterygomandibular space.
C. buccal vestibule.
D. buccal space.

Root canal therapy may be safely and successfully undertaken for

1. hemophiliacs.
2. patients with a history of rheumatic fever.
3. patients with rheumatoid arthritis.
4. cerebral palsy patients.
5. adolescent diabetics.

A. (2) (3) (4)
B. (2) (3) (5)
C. (1) (2) (3) (5)
D. All of the above.
E. None of the above.

Which of the following is/are vital signs?

A. Pulse and respiratory rate.
B. Complete blood count.
C. Pupil size and reactivity.
D. Height and weight.

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With respect to forceps extraction of teeth, which of the following applies (apply)?

1. Beaks should be placed on the root of the tooth.
2. Beaks should be applied parallel to the long axis of the tooth.
3. Beaks should be moved apically during extraction.
4. Poor placement can lead to tooth fracture, slippage and injury to adjacent teeth.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

To ensure the greatest accuracy, polysulfide base impressions should be poured

A. within 10 minutes.
B. within 1 hour.
C. within 8 hours.
D. after 24 hours.

The purpose of using intensifying screens in extra-oral radiography is to

A. improve resolution.
B. decrease exposure time.
C. decrease scatter radiation.
D. increase sharpness.

Which is the most appropriate method to minimize loss of dental amalgam and mercury from dental offices into sewage systems?

A. Use of ISO approved amalgam separators.
B. Storage of amalgam capsules in sealed containers.
C. Use of mercury vapour scavengers.
D. Disposal of scrap amalgam in a landfill site.

In an otherwise acceptable occlusion, an impacted maxillary canine could be

A. extracted.
B. retained and the first premolar removed to allow the canine to erupt.
C. surgically exposed to speed its eruption.
D. constitutes a problem requiring consultation with an orthodontist.
E. All of the above.

What is the most significant radiographic finding in hyperparathyroidism?

A. Demineralization of teeth.
B. Multiple odontogenic keratocysts.
C. Hypercementosis.
D. Rampant caries.
E. Generalized loss of lamina dura.

The rate of "set" of polysulfide impression materials is accelerated by

A. increasing the mixing temperature.
B. decreasing the mixing temperature.
C. adding oleic acid to the mix.
D. None of the above.

Abnormal development of the first pharyngeal arch could result in defects in the

A. zygomatic bones and external ears.
B. mandible and external nose.
C. maxilla and muscles of facial expression.
D. palate and hyoid bone.

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The outline form for a Class I amalgam preparation is determined by all of the following EXCEPT the

A. extent to which the enamel has been involved by the carious process.
B. lateral spread of caries along the dentino-enamel junction.
C. extension that must be made along the fissures in order to achieve sound and smooth margins.
D. need to terminate the margins on a cusp ridge or marginal ridge crest.
E. extent of undermining of the enamel by the carious process.

The vessel which may be injured when harvesting a connective tissue graft from the palatal mucosa is the

A. sphenopalatine.
B. nasopalatine.
C. posterior superior alveolar.
D. greater palatine.

An acute oral infection is of most concern in a patient with

A. pemphigus.
B. Crohn's disease.
C. otitis media.
D. a prosthetic heart valve.

The etiology of an Angle Class II malocclusion in a 12 year old with an SNA = 83° and an SNB = 79° is most likely

A. dental.
B. skeletal.
C. neuromuscular.
D. dental and neuromuscular.
E. skeletal and neuromuscular.

Granulation tissue is composed of

A. plasma cells and giant cells.
B. fibroblasts, capillaries and chronic inflammatory cells.
C. fibroblasts and eosinophils.
D. epithelial cells and tissue phagocytes.

Which of the following could be a complication when performing a dental extraction on an insulin-dependent diabetic patient?

A. Diabetic acidosis.
B. Increased bleeding.
C. Hypoglycemic shock.
D. Incomplete anesthesia.
E. Acute adrenocortical insufficiency.

In a normal eruption pattern, the last primary tooth to be lost is the

A. maxillary canine.
B. mandibular canine.
C. maxillary first molar.
D. mandibular second molar.
E. maxillary second molar.

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Which of the following can be associated with an impacted tooth?

A. Periapical cemento-osseous dysplasia.
B. Peripheral odontogenic fibroma.
C. Cementoblastoma.
D. Ameloblastoma.

The term applied to a low white blood cell count is

A. leukocytosis.
B. leukopenia.
C. thrombocythemia.
D. thrombocytopenia.

Corticosteroids may be used for the management of

1. allergy.
2. arthritis.
3. asthma.
4. Addison's disease.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Adrenal corticosteroids

1. cause diabetes.
2. cause retention of sodium and fluid.
3. heighten the immune response.
4. decrease the immune response.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A characteristic sign of aggressive periodontitis in an adolescent (juvenile periodontitis) is

A. marginal gingivitis.
B. painful, burning gingivae.
C. hyperplastic gingivitis.
D. drifting of the teeth.

Angle's classification of occlusion is based on

A. a full complement of teeth.
B. antero-posterior skeletal relationship of maxilla to mandible.
C. antero-posterior relationship of maxillary and mandibular first permanent molars.
D. vertical relationships in the lower face.

A zirconia-based ceramic fixed partial denture can be used for a patient with

A. periodontally involved abutment teeth.
B. long clinical crowns.
C. deep vertical anterior overlap.
D. cantilever pontic.
E. evidence of bruxism.

The most likely diagnosis of a patient with pain, swelling, numbness of the jaw and unexplained tooth mobility is

A. hyperparathyroidism.
B. fibrous dysplasia.
C. malignant neoplasm.
D. giant cell reparative granuloma.
E. syphilis.
In a cavity preparation which closely approximates the pulp, you would protect the pulp with

A. a zinc phosphate cement base.
B. a calcium hydroxide cement base.
C. a calcium hydroxide wash and cavity varnish.
D. a calcium hydroxide cement liner and a glass ionomer cement base.

During the extraction of an isolated maxillary second molar, the bony floor of the sinus is removed with the tooth. Your immediate treatment would be to

A. place a large strip of iodoform gauze, filling the tooth socket.
B. irrigate the sinus repeatedly and place a dressing in the tooth socket.
C. approximate the soft tissue as accurately as possible without irrigating.
D. prescribe an antibiotic and recall after 24hrs.

Which of the following conditions CONTRAINdicates treatment with dental implants?

A. Uncontrolled diabetes mellitus.
B. Osteoporosis.
C. Anticoagulant therapy.
D. Age greater than 80 years.

Tetracycline therapy instituted either in the second trimester or post partum in the infant is responsible for

A. discoloration of deciduous teeth.
B. discoloration of permanent teeth.
C. minor changes in the hydroxyapatite of the enamel.
D. A. and B.

The leeway space in an 8 year old child

A. will provide space for eruption of the permanent incisors.
B. is greater in the maxillary arch than in the mandibular arch.
C. occurs with premature loss of primary molars.
D. is approximately 3.5mm in the mandibular arch.
E. allows accommodation of premolars that are larger than the primary molars.

Which of the following muscles comprise the retromolar pad?

1. Lateral (external) pterygoid.
2. Buccinator.
3. Palatoglossus.
4. Superior constrictor.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Reversible hydrocolloids transform from sol to gel and gel to sol as a function of the

A. concentration of the fillers and plasticizers.
B. percent composition by weight of water.
C. concentration of potassium sulfate.
D. temperature.
Which of the following Class II Division 1 malocclusion(s) is/are most likely to be corrected with a cervical headgear?

A. Retrognathic mandible, retrognathic maxilla, open bite.
B. Prognathic maxilla, decreased lower face height, increased overbite.
C. Increased lower anterior face height, prognathic mandible, retrognathic maxilla.
D. Open bite, prognathic maxilla, prognathic mandible.

The most appropriate treatment for a permanent central incisor with a necrotic pulp and a wide open apex is

A. pulpotomy with calcium hydroxide.
B. apexification with calcium hydroxide.
C. apexification with zinc oxide.
D. root canal therapy using gutta-percha.
E. root canal therapy followed by a retrograde filling.

A patient with a history of hypertension presents for an emergency dental extraction. His blood pressure is 158/100 mmHg. The dentist intends to use lidocaine 2% with 1:100,000 epinephrine for local anesthesia. The most appropriate management is to

A. direct the patient to a hospital emergency room.
B. extract the tooth using a maximum of four cartridges.
C. extract the tooth using a maximum of two cartridges.
D. extract the tooth and advise the patient to take additional antihypertensive medication.

A gingivectomy may be performed when there is/are

A. horizontal bone loss.
B. no intrabony defects.
C. an adequate zone of attached gingiva.
D. a gingival pocket.
E. All of the above.

Osteomalacia is seen in

A. Vitamin C deficiency.
B. adult rickets.
C. protein deficiency.
D. hyperparathyroidism.

Which of the following fibre groups are attached to bone?

A. Apical.
B. Interradicular.
C. Transseptal.
D. Circular.

"Dens in dente" (dens invaginatus) is associated with

A. supernumerary teeth.
B. dentinogenesis imperfecta.
C. osteogenesis imperfecta.
D. anterior teeth.
E. amelogenesis imperfecta.

During orthodontic treatment, a healthy adolescent will most frequently present with

A. gingivitis.
B. horizontal bone loss.
C. necrotizing ulcerative gingivitis.
D. angular bone loss.

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Supragingival calculus is most often found on the
A. lingual of mandibular anterior teeth.
B. buccal of mandibular anterior teeth.
C. palatal of maxillary molars.
D. lingual of mandibular molars.

The treatment for an 11-year old who has intermittent swelling and pain associated with a central incisor which was traumatized 6 months ago should be
A. pulpotomy.
B. pulpectomy.
C. extraction.
D. observation.

For a ceramometal crown, the thermal expansion coefficient of the ceramic (porcelain) should be
A. slightly lower than that of the underlying metal structure.
B. equal to that of the underlying metal structure.
C. slightly higher than that of the underlying metal structure.
D. significantly higher than that of the underlying metal structure.

A 70 year old patient was diagnosed with squamous cell carcinoma of the lateral border of the tongue. The tumour measures 3.5 x 3.0 cm. A CT of the neck confirms the presence of a 2.5 cm ipsilateral submandibular lymph node suggestive of locoregional disease. Chest X-rays and liver function tests were within normal limits. The TNM classification of this patient’s disease is
A. T1N1M0.
B. T1N2M0.
C. T2N1M0.
D. T2N2M1.

I-bar clasp arms and circumferential clasp arms both
1. terminate in retentive undercuts lying gingival to the height of contour.
2. originate from the framework and approach the tooth undercut area from a gingival direction.
3. provide retention by the resistance of metal to deformation rather than frictional resistance of parallel walls.
4. are circular in cross-section.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Accessory canals in permanent teeth are most commonly found in the
A. cervical third of the root.
B. middle third of the root.
C. apical third of the root.
D. bifurcation area.
E. trifurcation area.

The pulpal floor of an occlusal amalgam preparation on a mandibular first premolar should
A. be 2mm into the dentin.
B. slope apically from mesial to distal.
C. be parallel to the buccolingual cusp plane.
D. be perpendicular to the long axis of the tooth.

Which type of bone grafting material is most likely to have a successful result?
A. Allogenic.
B. Alloplastic.
C. Autogenous.
D. Xenogenic.
The defining future of a skeletal crossbite is
A. coincident midlines.
B. an interference free closure to maximal intercuspidation.
C. a deviated closure to maximal intercuspidation.
D. a large mandible.

Roots of the permanent maxillary central incisors are completed by what age?
A. 8 years.
B. 10 years.
C. 12 years.
D. Later than 12 years.

In a child, correction of a bilateral posterior constriction of the maxillary arch has the WORST long term prognosis for stability if
A. the maxillary posterior teeth are centred on the alveolar process.
B. a fixed expansion quadhelix is used for treatment.
C. there is a functional shift from initial contact to maximum intercuspidation.
D. there is a history of prolonged thumb sucking.

Which of the following results from a necrotic pulp?
A. Dentigerous cyst.
B. Lateral periodontal cyst.
C. Chronic periradicular periodontitis.
D. Pulp polyp.

Oral lesions may be an early manifestation of
1. leukemia.
2. pernicious anemia.
3. infectious mononucleosis.
4. obstructive jaundice.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Alteration of the intestinal flora by some chemotherapeutic agents can interfere with reabsorption of a contraceptive steroid thus preventing the recirculation of the drug through the enterohepatic circulation. Which of the following can interfere with this mechanism?
1. Codeine.
2. Penicillin V.
3. Acetaminophen.
4. Tetracycline.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The principal internal retention for a Class V amalgam cavity preparation is established at the
A. occluso-axial and gingivo-axial line angles.
B. mesio-axial and disto-axial line angles.
C. mesio-gingival and disto-gingival line angles.
D. None of the above.

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Assuming a maxillary cast is accurately mounted on an articulator, a centric relation record is used to

A. determine the vertical dimension of occlusion.
B. mount the mandibular cast.
C. establish the occlusal plane.
D. record the inclination of the condylar guidance.

In treatment planning for a removable partial denture, a knife-edge bony ridge will

A. make impression-making difficult.
B. necessitate relief to the partial denture.
C. cause difficulty in tooth selection.

Lymphatic spread from a carcinoma on the tip of the tongue would initially involve which nodes?

A. Submandibular.
B. Submental.
C. Deep parotid.
D. Mastoid.
E. Jugulo-omohyoid.

Which of the following bone lesions of the mandible is/are malignant?

1. Osteosarcoma.
2. Osteochondroma.
3. Ewing's tumor.
4. Fibrous dysplasia.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Rests on terminal abutment teeth for a cast removable partial denture provide

A. primary retention.
B. indirect retention.
C. occlusal force transmission.
D. lateral force transmission.

Compared to nonsmokers, patients who smoke have

A. increased salivary antibodies (immunoglobulin A).
B. increased serum IgG antibody response to periodontal pathogens.
C. decreased serum T lymphocytes.
D. decreased collagenase in periodontal tissue.

A 7 year old child has a lingually-locked maxillary permanent central incisor. There is sufficient room for the tooth to move labially into proper alignment. The most appropriate management is to

A. monitor until all permanent anterior teeth have erupted.
B. correct the condition immediately orthodontically.
C. be sure the overjet is sufficient for retention.
D. correct the condition immediately surgically.

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Immediately following a left posterior superior alveolar nerve block injection, the patient’s face becomes quickly and visibly swollen on the left side. The immediate treatment should be to

1. apply a cold compress.
2. administer 0.3mg epinepherine (sublingually).
3. apply pressure.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following tests is/are useful in the diagnosis of periradicular periodontitis

1. thermal test.
2. electric pulp test.
3. periapical radiograph.
4. probing.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only.
E. All of the above.

Crown-root ratio and residual bone support can best be seen radiographically in a

A. panoramic film.
B. bite-wing film.
C. periapical film - bisecting angle technique.
D. periapical film - paralleling technique.

The collimator of an X-ray tube

1. produces a more homogeneous X-ray beam.
2. prevents secondary radiation.
3. focuses the X-ray beam.
4. restricts the diameter of the X-ray beam.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only.
E. All of the above.

The addition of platinum to a dental gold alloy results in increased

1. strength.
2. hardness.
3. melting point.
4. resistance to corrosion.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The periodontal ligament

A. only has oblique fibres during the eruptive stage.
B. increases in width with age.
C. achieves its final structural form after complete eruption.
D. has osteoblasts as its principle cells.

The best method to control the setting time of an irreversible hydrocolloid without affecting its physical properties is to alter the

A. water temperature.
B. water:powder ratio.
C. mixing time.
D. composition.

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Displacement of fractures is influenced by

1. age.
2. hemorrhage.
3. direction of the blow.
4. muscle attachments.
5. direction of fracture line.

A. (1) (2) (3)
B. (2) (3) (4)
C. (3) (4) (5)
D. (1) (2) (3) (4)
E. (2) (3) (4) (5)

Which of the following may be used as a local anesthetic in a patient allergic to both amide and ester-type local anesthetics?

A. Nitrous oxide.
B. Bupivacaine.
C. Phenylephrine.
D. Diphenhydramine.
E. Ethyl aminobenzoate.

An amalgam coronal-radicular core build-up for endodontically treated molar teeth requires

A. an adequate pulp chamber and ferrule.
B. a pulp chamber, ferrule and amalgam bonding.
C. the presence of a post.
D. the use of retentive threaded pins.

A cold stimulus applied to a tooth will produce a hypersensitive response if the tooth

A. is nonvital.
B. has a periodontal pocket.
C. has a hyperemic pulp.
D. has chronic proliferative pulpitis.

Mucocoeles are most commonly found in the

A. upper lip.
B. lower lip.
C. tongue.
D. buccal mucosa.
E. soft palate.

Retentive pins should ideally be placed

A. within enamel.
B. at the dentino-enamel junction.
C. a minimum of 0.5-1.0mm from the dentino-enamel junction.
D. a minimum of 1.5-2.0mm from the dentino-enamel junction.
After pulpotomy of a permanent central incisor in an 8 year old child, the most important clinical criterion/criteria of success is/are

1. completion of root formation.
2. internal resorption.
3. dentin bridge formation.
4. formation of pulp stones.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

An exchange of calcium ions between saliva and enamel is

1. affected by fluoride.
2. a component of remineralization and demineralization.
3. important in maintenance of tooth structure.
4. pH dependent.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following pontic designs is most likely to cause soft tissue irritation?

A. Polished gold.
B. Polished acrylic.
C. Polished porcelain.
D. Glazed porcelain.

Which of the following drugs has/have sedative properties?

1. Benzodiazepines.
2. Barbiturates.
3. Meperidine.
4. Phenytoin.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A lateral cephalometric radiograph for a patient with a 3mm anterior functional shift should be taken with the patient in

A. maximum intercuspation.
B. initial contact.
C. normal rest position.
D. maximum opening.
E. protrusive position.

A periapical radiograph of a 7 year old child reveals an inverted mesiodens. The right central incisor is partially erupted and the left central incisor has not yet erupted. The most appropriate management is to

A. allow the mesiodens to erupt.
B. remove the mesiodens and orthodontically erupt the central incisor.
C. remove the mesiodens and place the patient on observation.
D. wait for the mesiodens and the unerupted central incisor to erupt.

Displacement of fractures is influenced by

1. direction of the blow.
2. muscle attachments.
3. direction of fracture line.
4. hemorrhage.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

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Which local anesthetic should be used to achieve the longest pain relief for a patient requiring the surgical extraction of tooth 3.8?

A. Articaine 4%, with epinephrine 1:100,000.
B. Bupivacaine 0.5%, with epinephrine 1:200,000.
C. Lidocaine 2%, with epinephrine 1:100,000.
D. Mepivacaine 3% plain.
E. Prilocaine 4%, with epinephrine 1:200,000.

The collagen fibres of the periodontal ligament that insert into bone are called

A. Müller’s fibres.
B. reticular fibres.
C. Sharpey’s fibres.
D. oxytalan fibres.

The CNS depressant effects of midazolam are reversed by the administration of

A. diphenhydramine.
B. flumazenil.
C. naloxone.
D. ranitidine.

"Cuspid guided occlusion" occurs when the

A. teeth on the nonworking side make contact in lateral excursions.
B. teeth on the working side make contact in lateral excursions.
C. canine and lateral incisors make contact in lateral excursion.
D. posterior teeth make no contact in lateral excursions on the working side.

Fremitus is

A. tooth mobility of grade II.
B. mobility during occlusion.
C. vertical tooth mobility.
D. tooth pain upon percussion.

Forces for orthodontic tooth movement should ideally be

A. intermittent and light.
B. continuous and heavy.
C. intermittent and heavy.
D. continuous and light.

Hypercementosis (cemental hyperplasia)

A. is most often confined to the apical half of the root.
B. most frequently affects molars.
C. affects non vital teeth in the majority of cases.
D. (A) and (C)
E. (B) and (C)

In general anaesthesia, the last part of the CNS (Central Nervous System) to be depressed is the

A. medulla.
B. oblongata.
C. midbrain.
D. cerebellum.
E. spinal cord.

Condensing osteitis differs from idiopathic osteosclerosis because it is

A. expansile.
B. painful.
C. associated with fever.
D. associated with pulpal inflammation.

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Which of the following is used in the management of a patient with grand mal seizures?

A. Amobarbital.
B. Secobarbital.
C. Pentobarbital.
D. Phenobarbital.

What is the most appropriate film size for making an occlusal radiograph in a 3 year old patient?

A. 0.
B. 1.
C. 2.
D. 4.

Resin bonding of composites to acid-etched enamel results in

A. decreased polymerization shrinkage of the resin.
B. decreased crack formation in the enamel.
C. reduced microleakage.
D. improved wear resistance of the composite.

Which of the following medications is CONTRAINDIATED in the management of a patient who is taking warfarin?

A. Acetaminophen.
B. Penicillin.
C. Acetylsalicylic acid.
D. Codeine.
E. Clindamycin.

It is ethical to replace amalgam restorations

1. on request from an informed patient.
2. to relieve symptoms of multiple sclerosis.
3. in highly esthetic areas of the mouth.
4. to eliminate toxins from the patient.

Which of the following medications is CONTRAINDIATED in the management of a patient who is taking warfarin?

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The function(s) of the reciprocal clasp arm is/are to

A. act as an indirect retainer.
B. stabilize the abutment teeth.
C. act as a direct retainer for the distal base.
D. counteract any force transmitted by the retentive arm.

Increased bleeding is associated with a prolonged administration of

1. warfarin.
2. codeine.
3. acetylsalicylic acid.
4. acetaminophen.

The maxillary cast partial denture major connector design with the greatest potential to cause speech problems is

A. a thick narrow major connector.
B. an anterior and a posterior bar.
C. a thin broad palatal strap.
D. narrow horseshoe shaped.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

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During normal growth, the gnathion, as viewed on successive cephalograms, will move
A. downward and backward.
B. downward and forward.
C. backward and upward.
D. forward only.

The colour of normal gingiva is affected by the
1. vascularity of the gingiva.
2. epithelial keratinization.
3. thickness of the epithelium.
4. melanin pigmentation.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

After performing an apicoectomy, which of the following should be placed in the bony defect prior to suturing the flap?
A. Corticosteroids.
B. Antibiotic powder.
C. Oxidized cellulose.
D. Bone wax.
E. Nothing.

After an inferior alveolar nerve block injection, a patient would develop seventh nerve paralysis if the injection was made into the
A. internal maxillary artery.
B. retroparotid space.
C. internal pterygoid muscle.
D. retromandibular vein.
E. pterygoid plexus of veins.

A laboratory remount of processed dentures is done in order to correct occlusal disharmony produced by errors primarily in the
A. mounting of the casts on the articulator.
B. registration of jaw relation records.
C. processing of acrylic dentures.
D. registration of condylar guidance.

The type of amalgam requiring the least volume of mercury for its setting reaction is
A. low copper.
B. high copper.
C. admixed.
D. lathe cut.
E. spherical.

A patient complains of acute pain 24 hours after the insertion of a restoration in a tooth with no pre-existing periapical pathology. The tooth is vital and tender to percussion. The radiograph will show
A. an apical radiolucency.
B. osteosclerosis.
C. condensing osteitis.
D. a normal apex.

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For which of the following pathological conditions would a lower central incisor tooth be expected to respond to heat, cold and electric pulp test?

A. Apical cyst.
B. Acute apical abscess.
C. Periapical cemento-osseous dysplasia.
D. Chronic apical periodontitis.

Nitrous oxide

A. may supplement behavioural management of an anxious patient.
B. is a substitute for behavioural management of an anxious patient.
C. is a substitute for local anesthesia for a dental extraction.
D. would have no analgesic effect at a dose of 60%.

Which of the following removable partial dentures has the LEAST amount of rotation around the fulcrum?

A. Kennedy Class I.
B. Kennedy Class II.
C. Kennedy Class III.

A 29 year old patient has had multiple painful ulcerated lesions on the buccal attached gingiva for one day. No fever, malaise or lymphadenopathy is present. The most appropriate initial management is (a)

A. topical steroid.
B. palliative mouth rinse.
C. systemic antibiotic.
D. systemic antiviral therapy.

Which of the following is most radiopaque?

A. Lamina dura.
B. Enamel.
C. Cortical bone.
D. Gold inlay.
E. Composite restoration.

The rate limiting step of tooth movement is

A. bone deposition.
B. bone resorption.
C. force application.
D. occlusal interference.

The main reason for adding copper to a dental amalgam alloy is to

A. increase expansion.
B. reduce tarnish resistance.
C. make amalgamation easier.
D. increase lustre.
E. reduce the tin-mercury phase.

With the development of gingivitis, the sulcus becomes predominantly populated by

A. gram-positive organisms.
B. gram-negative organisms.
C. diplococcal organisms.
D. spirochetes.

Filters are placed in the path of the x-ray beam to

A. increase contrast.
B. reduce film density.
C. reduce exposure time.
D. reduce patient radiation dose.

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A "butterfly-rash" of the face can sometimes be found in

A. erythema multiforme.
B. lupus erythematosus.
C. pemphigus vulgaris.
D. acne rosacea.

Premature loss of a primary maxillary second molar usually produces a malocclusion in the permanent dentition that is characterized by

A. anterior crowding.
B. labially displaced maxillary canines.
C. delayed eruption of the permanent first molar.
D. a Class II molar relationship on the affected side.
E. a Class III molar relationship on the affected side.

The developing permanent tooth

1. lies apically and lingually to primary teeth in the anterior region.
2. may show deviated eruption times if the primary tooth is lost prematurely.
3. has a more protrusive path of eruption in the anterior region.
4. usually erupts earlier in girls.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Radiographically, the lamina dura is a

A. thick layer of bone forming the inner surface of the alveolus.
B. thin radiolucent line around the roots of the teeth.
C. thick layer of cortical bone.
D. thin radiopaque line around the roots of the teeth.

In the surgical removal of an impacted mandibular third molar, which of the following would be considered to be the most difficult?

A. Mesio-angular.
B. Horizontal.
C. Vertical.
D. Disto-angular.

In patients wearing complete dentures, the most frequent cause of tooth contact (clicking) during speaking is

A. nervous tension.
B. incorrect centric relation position.
C. excessive occlusal vertical dimension.
D. lack of vertical overlap.
E. unbalanced occlusion.

Which of the following drugs is used in the treatment of a candida albicans infection?

A. Penicillin.
B. Nystatin.
C. Chlorhexidine.
D. Tetracycline.

The most common form of latex allergy is a/an

A. immediate localized (Type 1) contact urticaria and erythema.
B. immediate generalized (Type 1) conjunctivitis and rhinitis.
C. immediate generalized (Type 1) bronchospasm and anaphylaxis.
D. delayed (Type IV) contact dermatitis.

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For a cast gold restoration, a gingival bevel is used instead of a shoulder because a bevel

1. protects the enamel.
2. increases retention.
3. improves marginal adaptation.
4. increases the thickness of gold.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Multiple “punched-out” radiolucencies of the skull and jaws are most commonly seen with

A. metastatic carcinoma.
B. plasmacytoma.
C. multiple myeloma.
D. chondrosarcoma.
E. osteosarcoma.

Which of the following is the most severe adverse effect of antibiotic therapy?

A. Urticaria.
B. Angioneurotic edema.
C. Diarrhea.
D. Anaphylactic reaction.
E. Flatulence.

Which of the following does NOT relieve pain?

A. Codeine.
B. Methadone.
C. Meperidine.
D. Hydromorphone.
E. Chloral hydrate.

Percussion of a tooth is used to evaluate

1. ankylosis.
2. mobility.
3. pain.
4. vitality.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Adrenal corticosteroids

A. increase heart rate.
B. cause vasodilation.
C. increase protein synthesis.
D. reduce inflammation.

A tissue-level implant should be used when

A. the edentulous site is in the esthetic zone.
B. platform switching is desired.
C. a 2-stage surgical approach is planned.
D. ease for oral hygiene is desired to preserve crestal bone.

Which of the following patients should be referred for orthodontic treatment to close a diastema between maxillary central incisors?

1. An 8-year old with no abnormal oral habits.
2. A 14-year old with no abnormal oral habits.
3. A 3-year old with a 4mm overjet.
4. An 8-year old with a previous thumb habit.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

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Following loss of a permanent mandibular first molar at age 8, which of the following changes are likely to occur?

1. Distal drift of second premolar.
2. No movement of second premolar.
3. Mesial drift of second permanent molar.
4. No movement of second permanent molar.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

During setting, a gypsum-bonded investment material will undergo an additional expansion if it occurs

A. under water.
B. under vacuum.
C. in a cold environment.
D. in a dry environment.

Which of the following could cause phonetic problems for patients with removable dentures?

1. Posterior teeth placed in a buccal position.
2. Excessive bulk in the palatal area.
3. Anterior teeth that are too long.
4. Advanced ridge resorption.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The amount of radiation to a patient can be reduced by

1. using a high speed film.
2. using an aluminum filter.
3. increasing target-film distance.
4. using low kVp.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

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Proper collimation of the useful beam for the film size and target-film distance will reduce  
1. intensity of central beam.  
2. secondary radiation.  
3. radiographic contrast.  
4. image definition.  
5. radiation received by patient.  

A. (1) (2) (3) (5)  
B. (1) (3) (4) (5)  
C. (2) (3) (4) (5)  
D. (2) and (5)  
E. All of the above.

A dentoalveolar abscess most frequently originates from (a)  

A. post-extraction infection.  
B. trauma.  
C. periodontal inflammation.  
D. pulpal necrosis.  

Which impression material can be stored for more than 24 hours before being poured and still produce accurate dies?  

A. Polysulfide.  
B. Condensation reaction silicone.  
C. Reversible hydrocolloid.  
D. Polyvinylsiloxane.  
E. Irreversible hydrocolloid.

Upon examination of an edentulous patient, it is observed that the tuberosities contact the retromolar pads at the correct occlusal vertical dimension. The treatment of choice is to  

A. reduce the retromolar pads surgically to provide the necessary clearance.  
B. reduce the tuberosities surgically to provide the necessary clearance.  
C. construct new dentures at an increased occlusal vertical dimension to gain the necessary clearance.  
D. proceed with construction of the denture and reduce the posterior extension of the mandibular denture to eliminate interferences.

Using a high speed dental handpiece WITHOUT water coolant will  

A. produce a smoother surface.  
B. decrease pulpal damage if used with light pressure.  
C. reduce clogging of dental bur.  
D. reduce debris accumulation.  
E. increase frictional heat.

A patient suddenly becomes pale and sweaty after an injection of 4ml of lidocaine 2% with epinephrine 1:100,000. The radial pulse is slow and steady. The respiration is slow. The blood pressure is 80/60. What is the most probable diagnosis?  

A. A toxic reaction to lidocaine.  
B. A toxic reaction to epinephrine.  
C. An allergic reaction to the local anesthetic.  
D. Incipient syncope.  
E. An impending adrenal insufficiency.
A patient with a unilateral left disc displacement without reduction is most likely to present with

A. normal left excursion and limited right excursion.
B. limited left excursion and normal right excursion.
C. normal bilateral excursions.
D. limited bilateral excursions.

What is the earliest age that the diagnosis of a congenitally missing mandibular second premolar can be confirmed?

A. 2 years.
B. 4 years.
C. 6 years.
D. 8 years.

White lesions of the oral mucosa may be produced by

1. thickening of the epithelium.
2. increase of the keratinized layers.
3. coagulation by heat or chemicals.
4. mycotic infection.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Exfoliative cytology can be of value in the diagnosis of

A. lichen planus.
B. traumatic ulcers.
C. herpes simplex.
D. erythema multiforme.
E. benign mucous membrane pemphigoid.

Ludwig’s angina may cause death by

A. heart failure.
B. asphyxia.
C. convulsions.
D. paralysis of muscles of respiration.
E. pyemia.

A 32 year old patient presents with several shallow, round ulcers, 3-5mm in diameter, on the left and right buccal mucosa. The most likely diagnosis is

A. recurrent herpes.
B. traumatic ulcers.
C. pemphigus vulgaris.
D. aphthous ulcers.

Tooth 1.1 has a small fractured mesioincisal corner into dentin. Which of the following is true with respect to the preparation for the restoration?

A. Pins are usually necessary to achieve adequate retention.
B. A lingual dovetail is usually required for retention.
C. An enamel bevel of 1mm is placed where enamel thickness allows.
D. Dentin coves are the primary form of retention for the restoration.

The most likely complication associated with the extraction of an isolated maxillary second molar is

A. a dry socket.
B. nerve damage.
C. fracture of the malar ridge.
D. fracture of the tuberosity.

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Which of the following bone lesions of the mandible is/are malignant?

1. Osteosarcoma.
2. Osteochondroma.
3. Ewing's tumor.
4. Fibrous dysplasia.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Traumatically intruded deciduous teeth should be

A. extracted.
B. left in place and endodontically treated.
C. surgically repositioned and endodontically treated.
D. left in place and monitored.

Which of the following is/are clinical signs of gingivitis?

1. Loss of stippling.
2. Gingival hyperplasia.
3. Decreased pocket depth.
4. Bleeding on probing.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

In metal-ceramic crowns, the bond between the materials is

A. mainly mechanical.
B. mainly chemical.
C. decreased by oxides on the metal surface.
D. decreased when the metal has a high yield point.

Strain hardening a metal will reduce its

A. modulus of elasticity.
B. ductility.
C. proportional limit.
D. yield strength.

An anaphylactic reaction to penicillin is most likely to occur

1. when the drug is administered parenterally.
2. in patients who have already experienced an allergic reaction to the drug.
3. within minutes after drug administration.
4. when the drug is administered orally.

Which statement is true with respect to Class II composite resin preparations?

A. Extension for prevention is a key element.
B. Fissures are only included when carious.
C. Including occlusal grooves makes the restoration more fracture-resistant compared to a slot preparation.
D. The preparation has a “standard” shape for each individual tooth.

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Which of the following is the most appropriate early management for a patient with primary herpetic gingivostomatitis? Prescribing

A. corticosteroids locally and systemically.
B. a systemic antiviral.
C. a systemic antibiotic.
D. a systemic antifungal.

Papillary hyperplasia under a denture is usually due to (an)

A. moniliasis.
B. ill fitting denture.
C. allergy to denture cleanser.
D. avitaminosis.

Hypochromic anemia is associated with

A. iron deficiency.
B. aminopyrine therapy.
C. vitamin B₁₂ deficiency.
D. folic acid deficiency.

One millilitre of a 2% solution of lidocaine hydrochloride contains how many milligrams of the drug?

A. 2
B. 20
C. 200
D. 2000

Which of the following constituents of a local anesthetic cartridge is most likely to be allergenic?

A. Lidocaine.
B. Epinephrine.
C. Metabisulfite.
D. Hydrochloric acid.

The most important objective of occlusal adjustment of a natural dentition is to

A. prevent temporomandibular joint syndrome.
B. increase the shearing action in mastication.
C. improve oral hygiene by preventing food impaction.
D. achieve a more favorable direction and distribution of forces of occlusion.

The high labial removable orthodontic appliance is most useful for

A. rotating premolars.
B. retracting labially tipped and spaced maxillary incisors.
C. retracting protruded and spaced mandibular incisors.
D. retracting protruded and crowded mandibular incisors.

A removable full-arch occlusal splint is used to

A. reduce pocket formation.
B. allow for individual tooth movement.
C. reduce unfavorable forces on teeth.
D. permit eruption or elongation of teeth.

The shape of the distobuccal flange of a mandibular denture is determined by the

1. buccinator muscle.
2. tendon of the temporal muscle.
3. masseter muscle.
4. external oblique ridge.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

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A characteristic sign of aggressive periodontitis in an adolescent (juvenile periodontitis) is

A. marginal gingivitis.
B. painful, burning gingivae.
C. hyperplastic gingivitis.
D. drifting of the teeth.

The optimal time for orthodontic treatment involving growth manipulation for skeletal Angle Class II malocclusions is

A. during the late primary dentition.
B. after the eruption of third molars.
C. after skeletal growth is complete.
D. during the period of greatest growth velocity.

Which muscle is LEAST likely to dislodge a mandibular denture?

A. Masseter.
B. Buccinator.
C. Mentalis.
D. Mylohyoid.

When probing a healthy periodontium using light forces, the probe tip will most likely extend to the

A. attached gingiva.
B. junctional epithelium.
C. transverse fibres of the periodontal ligament.

Normal sulcular epithelium in man is

1. nonkeratinized.
2. squamous.
3. stratified.
4. nonpermeable.

Which drug is most adversely affected by ingestion of antacids?

A. Cephalexin.
B. Erythromycin.
C. Tetracycline.
D. Penicillin V.

A patient presents complaining of spontaneous pain from a tooth. Pain persists following thermal testing by cold. What is the most likely diagnosis?

A. Normal pulp.
B. Reversible pulpitis.
C. Irreversible pulpitis.
D. Pulpal necrosis.

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B. Erythromycin.
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A. attached gingiva.
B. junctional epithelium.
C. transverse fibres of the periodontal ligament.

Aggressive periodontitis has all of the following features EXCEPT

A. rapid attachment loss.
B. suspected periodontal microbial pathogens.
C. radiographic evidence of bone loss.
D. ulcerations of the gingiva.
Cleft lip and palate usually result from
A. failure of proper union of the median and lateral nasal processes.
B. failure of the union of the median nasal process with the lateral nasal and maxillary processes.
C. anhidrotic ectodermal dysplasia.
D. failure of development of both the lateral nasal and maxillary processes.

Kilovoltage controls the
1. contrast of the image.
2. quantity of X-rays produced.
3. energy of the X-rays.
4. temperature of the cathode filament.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following condition(s) increase(s) susceptibility to dental caries?
1. Vitamin K deficiency during tooth development.
2. Vitamin D deficiency during tooth development.
3. Hereditary fructose intolerance.
4. Hyposalivation.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

An increased heart rate may be associated with
A. hypothyroidism.
B. prolonged corticosteroid therapy.
C. hyperthyroidism.
D. Down syndrome.

In the mixed dentition, an end-to-end first permanent molar relationship is indicative of
A. normally developing occlusion.
B. Class II malocclusion.
C. Class III malocclusion.
D. ideal molar occlusion.

Radiographic image distortion can be minimized by
A. decreasing focal spot (target)-to-object distance and decreasing object-to-film distance.
B. decreasing focal spot-to-object distance and increasing object-to-film distance.
C. increasing focal spot-to-object distance and decreasing object-to-film distance.
D. increasing focal spot-to-object distance and increasing object-to-film distance.

Voids on a dental cast could be caused by the high
A. surface tension of a silicone impression material.
B. surface tension of an irreversible hydrocolloid.
C. wettability of the dental stone.
D. wettability of the impression material.

A patient with a history of infective endocarditis is currently taking penicillin for an unrelated condition. The most appropriate management for periodontal therapy for this patient is to
A. prescribe a different antibiotic.
B. increase the dosage of penicillin.
C. maintain penicillin at the present level.
D. use chlorhexidine solution as a pre-therapy rinse.
The immersion of a hydrocolloid impression in 2% potassium sulphate for 2 to 5 minutes will
A. retard the set of the stone.
B. accelerate the set of the stone.
C. inhibit the formation of bubbles in the stone.
D. minimize the distortion of the hydrocolloid material during the storage time.

Which of the following agents is most effective in cold testing?
A. Ice water.
B. Air jet.
C. CO₂ (dry ice).
D. Ethyl chloride.

Thumbsucking after the age of six most often results in
A. a dental malocclusion.
B. a skeletal malocclusion.
C. mouth breathing.
D. temporomandibular disorder.

Cultures made from a dental abscess indicate the infection is caused by beta hemolytic streptococcus. Which of the following is the drug of choice?
A. Penicillin.
B. Erythromycin.
C. Tetracycline.
D. Cloxacillin.

Tetracycline therapy instituted either in the second trimester or post partum to the infant is responsible for all the following EXCEPT
A. discoloration of deciduous teeth and permanent teeth.
B. minor changes in the hydroxyapatite of the enamel.
C. predisposing the infant to candidal infections.
D. forming a complex with the developing tooth material.

Renal excretion of drug metabolites is influenced by all of the following EXCEPT
A. plasma protein binding.
B. tissue redistribution.
C. volume of distribution.
D. glomerular filtration.

Maxillary skeletal arch expansion
A. readily occurs in the preadolescent patient.
B. requires orthognathic surgery for skeletally immature patients.
C. decreases the arch space available.
D. increases a patient’s overbite.

Chlorhexidine is an effective antiplaque agent due to its ability to
A. bind to the positively charged pellicle.
B. damage the microbial cell membrane.
C. neutralize the bacterial end-products such as lactic acid.
D. non-selectively reduce the oral microbial flora.

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When odontoblasts are destroyed or undergo degeneration, they are replaced by
A. ameloblasts.
B. undifferentiated mesenchymal cells.
C. multinucleated giant cells.
D. osteoblasts.

All of the following appear as midline structures on periapical radiographs EXCEPT
A. nasopalatine/incisive canal.
B. anterior nasal spine.
C. nasal septum.
D. zygomatic process of the maxilla.

Which of the following cysts is most likely to undergo transformation into an ameloblastoma?
A. Radicular.
B. Dentigerous.
C. Fissural.
D. Traumatic.

Which of the following is characteristic of periapical cemental dysplasia?
A. Pain.
B. Expansion.
C. Biopsy is NOT usually necessary.
D. Requires endodontics or extraction.

Which of the following is a CONTRAINDICATION for placement of a fissure sealant on a permanent molar?
A. Tooth erupted more than one year.
B. Deep, narrow fissures.
C. Inadequate moisture control.
D. Community water supply fluoridated at 1.0ppm.

An ideal occlusion has
A. an absence of contact on cingulums during protrusion.
B. canine guidance or group function on the working side.
C. contact between posterior teeth during protrusion.
D. posterior tooth contact on the non-working side.

A patient who uses nitroglycerine has
A. rheumatic heart disease.
B. asthma.
C. coronary artery disease.
D. high blood pressure.
E. cardiac arrhythmia.

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Local anesthetics are less effective in inflamed tissue because they are
A. diluted by the edematous fluid.
B. rapidly redistributed by the increased blood flow.
C. ionized by the acidic pH.
D. rapidly degraded by released enzymes.

Attached gingival tissue is primarily composed of
A. collagenous fibres.
B. keratinized squamous epithelium.
C. elastic fibres.
D. A. and B.
E. A., B. and C.

A characteristic of a group function occlusion is
A. the teeth on the nonworking side contact in lateral excursion.
B. the teeth on the working side contact in lateral excursion.
C. the canine and lateral incisors contact in lateral excursion.
D. the posterior teeth on both working and nonworking sides contact in lateral excursion.

Polyvinylsiloxane impression materials have high
A. polymerization shrinkage.
B. dimensional stability.
C. by-product formation.
D. linear expansion.

In the mandibular dental arch of a 12-year old boy, the permanent first molars are in contact with the first premolars and the crowns of the second premolars have erupted lingually. The likely cause is
A. ankylosis of the mandibular second premolars.
B. lack of space.
C. teeth too large for the dental arch.
D. premature loss of deciduous second molars.
E. faulty lingual eruption of the second premolars.

The developing permanent tooth
A. lies apically and linguually to primary teeth in the anterior region.
B. may show deviated eruption times if the primary tooth is lost prematurely.
C. has a more protrusive path of eruption in the anterior region.
D. All of the above.

The appearance of a rash, itching, bronchoconstriction and fever after the administration of a drug are the result of
A. allergy.
B. tolerance.
C. idiosyncrasy.
D. teratogenicity.

Patients who are positive for the interleukin-1 (IL-1)
A. are at increased risk for severe periodontal disease.
B. have a decreased inflammatory response in the presence of bacteria.
C. are more likely to respond favourably to periodontal therapy.
D. have decreased bacterial pathogens associated with active periodontal disease.

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An apprehensive 77 year old patient, weighing approximately 60kg, requires the removal of several mandibular teeth under local anesthesia. The most appropriate method to manage this patient’s anxiety is to administer

A. 20mg of diazepam, intravenously.
B. 20mg of diazepam, orally.
C. 100mg of secobarbital, orally.
D. nitrous oxide and oxygen.

Severe throbbing tooth pain which increases when the patient lies down is a symptom of

A. a pulp polyp (chronic hyperplastic pulpitis).
B. late stage of acute pulpitis (acute suppurative pulpitis).
C. chronic pulpitis (chronic ulcerative pulpitis).
D. chronic apical abscess.
E. pulp hyperemia.

Cytologic examination may aid in the diagnosis of

1. Herpes simplex.
2. Recurrent aphthae.
3. Pemphigus vulgaris.
4. Erosive lichen planus.
5. Carcinoma in situ.

A. (1) (3) (4)
B. (1) (3) (5)
C. (1) (4) (5)
D. (2) (3) (4)

A filter is inserted in the path of the x-ray beam to

A. limit the area of surface exposure.
B. absorb backscatter radiation.
C. absorb long wave length radiation in the primary beam.
D. make it possible to use higher kilovoltage for improving image quality.
E. absorb stray radiation.

The effects of plaque on vascularity of the gingival connective tissue result in

1. dilation of small blood vessels.
2. increased vascular permeability.
3. proliferation of small blood vessels.
4. increase in gingival crevicular fluid.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Gingival enlargement observed in acute leukemia is due to

A. reactive fibrosis.
B. edema.
C. tissue infiltration by neoplastic cells.
D. capillary fragility.

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What is the maximum number of cartridges (1.8ml) of a 2% local anesthetic solution that can be administered without exceeding a total dose of 300mg?

A. 2.
B. 4.
C. 6.
D. 8.
E. 10.

The prolonged use of antibacterial lozenges or mouthwashes contributes to the development of

A. oral candidiasis.
B. geographic tongue.
C. cancrum oris.
D. Koplik's spots.
E. aphthous ulcers.

A 20 year old female patient is suspected of having bulimia. Which of the following signs will help confirm the diagnosis?

1. Enamel erosion of maxillary anterior teeth.
2. Enlargement of the thyroid gland.
3. Calluses on the dorsum of the fingers.
4. Bulky clothing to disguise weight loss.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

For a 20 year old, 80kg, patient with a confirmed allergy to codeine, which of the following is/are appropriate for pain control following the removal of an impacted third molar?

1. Hydromorphone, 2mg every 4 - 6 hours p.r.n.
2. Ibuprofen, 800mg 1 hour pre-operatively followed by 400mg every 4 - 6 hours p.r.n.
3. Acetaminophen, 650mg with oxycodone, 10mg every 4 - 6 hours p.r.n.
4. Ketorolac, 10mg every 4 - 6 hours p.r.n.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

When a radiographic examination is warranted for a 10 year old child, the most effective way to decrease radiation exposure is to

A. use a thyroid collar and lead apron.
B. apply a radiation protection badge.
C. use high speed film.
D. decrease the kilovoltage to 50kVp.
E. take a panoramic film only.

Patient nausea during nitrous oxide administration is an indication that the patient

A. is nervous.
B. has not eaten for some time.
C. is allergic to nitrous oxide.
D. has received the nitrous oxide too quickly.

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The eruption of a permanent central incisor may be delayed by
1. a supernumerary tooth.
2. dense fibrous tissue.
3. a retained deciduous incisor.
4. early loss of a deciduous incisor.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A healthy, 55 year old patient has alveolar bone loss on 40% of teeth, 3-4mm of clinical attachment loss and probing pocket depths ranging between 5-6mm with bleeding upon probing. The most likely diagnosis is
A. mild generalized chronic periodontitis.
B. mild localized chronic periodontitis.
C. moderate generalized chronic periodontitis.
D. moderate localized chronic periodontitis.

Which of the following is NOT a sign of occlusal trauma?
A. Fremitus.
B. Gingival recession.
C. Widened periodontal ligament.
D. Tooth migration.

For amalgam restorations, a 90° cavosurface angle accommodates the
1. condensing of amalgam.
2. compressive strength of amalgam.
3. tensile strength of amalgam.
4. compressive strength of enamel.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Immediate toxic reactions to local anesthetic administration are most commonly due to
A. deterioration of the anesthetic agent.
B. hypersensitivity to the vasoconstrictor.
C. hypersensitivity to the anesthetic agent.
D. excessive blood level of the anesthetic agent.

Which of the following materials/techniques is CONTRAINDICATED when using polyvinyl siloxane impression materials?
A. Displacement cords.
B. Electrosurgery.
C. Aluminum sulfate saturated cord.
D. Aluminum chloride impregnated cord.

The most appropriate time for surgical treatment in a female patient with mandibular prognathism is
A. just before the beginning of the prepubertal growth spurt.
B. just after the end of the prepubertal growth spurt.
C. just before eruption of the second permanent molars.
D. just after eruption of the second permanent molars.
E. after the completion of growth.

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When odontoblasts are destroyed as a result of cavity preparation

A. adjacent fibroblasts differentiate into new odontoblasts.
B. a permanent defect results in the odontoblast layer.
C. surrounding odontoblasts are stimulated to divide.
D. new cells differentiate from pulpal mesenchyme cells.

A pontic exerting too much pressure against the ridge may cause

1. fracture of the solder joints.
2. hypertrophy of the soft tissue.
3. crazing of the gingival portion of the porcelain.
4. resorption of the alveolar bone.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

In radiography, minimum magnification and maximum definition are achieved by

A. minimum OFD (object-film distance) and minimum FFD (focal-film distance).
B. minimum OFD (object-film distance) and maximum FFD (focal-film distance).
C. maximum OFD (object-film distance) and maximum FFD (focal-film distance).
D. maximum OFD (object-film distance) and minimum FFD (focal-film distance).

A maxillary anterior bite plane causes

A. translation of the maxillary incisors.
B. extrusion of the mandibular incisors.
C. extrusion of the maxillary posterior teeth.
D. no occlusal changes.

The most practical method to significantly reduce the setting time of stone and plaster is to use

A. warm mixing water.
B. a calcium sulfate dihydrate nucleating agent.
C. a sodium sulfate nucleating agent.
D. a longer mixing time.

Which permanent teeth will commonly be present in an 8 year old child?

A. All central and lateral incisors.
B. All central and lateral incisors and first molars.
C. All central and lateral incisors, first molars and first premolars.
D. Only mandibular central and lateral incisors and first molars.

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Particulate hydroxyapatite, when placed subperiostially,
1. is highly biocompatible.
2. has a low incidence of secondary infection following surgery.
3. has a tendency to migrate following insertion.
4. induces bone formation throughout the implanted material.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The mesial furcation of the permanent maxillary first molar is best assessed from which aspect of the tooth?
A. Mesiobuccal.
B. Mesiopalatal.
C. Midmesial.

The use of complete dentures by older people most frequently causes
1. denture induced hyperplasia.
2. alveolar ridge resorption.
3. angular cheilitis.
4. stomatitis.
5. leukoplasia.
A. (1) (4) (5)
B. (2) (3) (5)
C. (1) (2) (3) (4)
D. All of the above.

Which of the following is the most appropriate initial step in management of this case?
A. Cephalometric analysis.
B. Diagnostic wax-up.
C. Caries risk assessment.
D. Fluoride rinse prescription.

Which of the following is a sign of a severe toxic reaction to ketoconazole?
A. Jaundice.
B. Hypertension.
C. Xerostomia.
D. Salivary gland swelling.

Which of the following diseases may cause an enlargement of the jaws, development of diastemas and/or a poorly fitting denture?
A. Phantom bone disease.
B. Rickets.
C. Paget’s disease.
D. Osteoporosis.
E. Hypophosphatasia.

The leeway space is defined as the space
A. between the maxillary and mandibular occlusal surfaces when the mandible is in rest position.
B. which results from the difference in sizes between the combined widths of the primary cuspids and molars and the permanent cuspids and bicuspids.
C. distal to the mandibular primary canine and mesial to the maxillary primary canine.
D. between primary anterior teeth.

Gingival recession at the buccal surface of a tooth is most likely caused by
A. improper tooth brushing technique.
B. chronic bruxism.
C. improper flossing technique.
D. cigarette smoking.

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In the formation of the tooth, Tome’s processes are responsible for

A. laying down the enamel prisms.
B. forming the odontoblastic tubules.
C. reorganizing the collagen fibres.
D. generating the incremental lines.
E. secreting the calcospherites.

A major clinical problem of penicillin therapy is its

A. high toxicity.
B. allergenicity.
C. rapid development of tolerance.
D. narrow spectrum.

Characteristics of Peutz-Jeghers syndrome include

A. melanin pigmentation of the lips.
B. yellowish spots on the oral mucosa.
C. small, papillary lesions on the palate.
D. a rhomboid-shaped red patch on the dorsum of the tongue.

What is the most appropriate management for erythroleukoplakia?

A. Observation.
B. Replacement of amalgam restorations.
C. Change in diet.
D. Biopsy.
E. Carbon dioxide laser ablation.

The most common site of intra-oral squamous cell carcinoma is the

A. palate.
B. floor of the mouth.
C. gingiva.
D. buccal mucosa.

If a patient loses a permanent maxillary first molar before the age of 11, the

1. premolar drifts distally.
2. maxillary second molar erupts and moves mesially.
3. opposing tooth erupts into the space created.
4. overbite increases.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The anterior palatine foramen is most likely to be radiographically misdiagnosed as a

A. rarefying osteitis.
B. nasolabial cyst.
C. cyst of the incisive papilla.

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A patient complains of acute pain 24 hours after the insertion of a restoration in a tooth with no preexisting periapical pathology. The tooth is vital and tender to percussion. The radiograph will show

A. an apical radiolucency.
B. acute osteitis.
C. root resorption.
D. condensing osteitis.
E. normal lamina dura.

With the development of gingivitis, the sulcus becomes predominantly populated by

A. gram-positive organisms.
B. gram-negative organisms.
C. diplococcal organisms.
D. spirochetes.

Ankylosed deciduous teeth may be recognized by their

A. percussion sensitivity.
B. discolouration.
C. crown shape.
D. buccolingual displacement.
E. infra-occlusal position.

Fibrous dysplasia of the jaws

A. is of known etiology.
B. is premalignant.
C. has monostotic and polyostotic forms.
D. begins in the fifth decade.
E. is bilaterally symmetrical.

Management of a “dry socket” should include

A. hydrogen peroxide irrigation of socket.
B. vigorous curettage of the socket.
C. placement of a dressing in the socket.
D. a prescription for antibiotics.

Multiple radiolucent lesions of the jaws are features of

1. hyperparathyroidism.
2. multiple myeloma.
3. basal cell nevus syndrome.
4. hyperthyroidism.

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A. gram-positive organisms.
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Root planing is used in the treatment of pockets which are

1. edematous.
2. fibrotic.
3. below the mucogingival junction.
4. infrabony

A. (1) (2) (3)
B. (1) (2) (4)
C. (2) and (3)
D. All of the above.

When using a zinc phosphate cement to lute a full crown, it is recommended to

A. mix the cement on a waxed paper pad.
B. leave the tooth moist but not wet.
C. apply continuous occlusal loading while the cement sets.
D. remove any excess before the cement is set.

Sutures can be

1. used to hold soft tissues into position.
2. used to control bleeding.
3. resorbable or non-resorbable.
4. used to stretch soft tissues into position.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following conditions may result from cross-brushing the teeth?

A. Erosion.
B. Abrasion.
C. Attrition.
D. Hypoplasia.

Which of the following are mechanisms of growth of the naso-maxillary complex?

A. Sutural.
B. Cartilaginous.
C. Appositional.
D. All of the above.

The extraction of a maxillary primary central incisor at the age of 6 years will cause

A. loss of intercanine space.
B. increased intercanine space.
C. no change in intercanine space.
D. increased overbite.
E. decreased overjet.

Dietary deficiency of vitamin D can result in

A. abnormal formation of osteoid.
B. osteitis fibrosa cystica.
C. Paget's disease.
D. myositis ossificans.
E. osteogenesis imperfecta.

Osteoporosis is linked to

A. low estrogen levels.
B. high testosterone levels.
C. low androgen levels.
D. high progesterones levels.

Which of the following statements is FALSE with respect to rounded internal line angles in preparations for Class II composite resins?

A. Tooth structure is conserved.
B. Stress concentration is reduced.
C. Resistance form is compromised.
D. Adaptation of the resin during placement is enhanced.

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The apical region of a non-vital tooth with a deep carious lesion may radiographically show:

1. widening of the periodontal space.
2. loss of lamina dura.
3. a circumscribed radiolucency.
4. calcification of the periodontal membrane.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Kilovoltage controls the:

1. contrast.
2. speed of the electrons.
3. penetrating power of radiation.
4. penumbra.

A. (1) (2) (3)
B. (1) and (3)
C. (1) and (4)
D. (4) only
E. All of the above.

The presence of hepatitis B surface antigen (HBsAg) and hepatitis B e antigen (HBeAg) in blood indicates the individual:

A. is infectious for hepatitis B.
B. has acquired immunity to hepatitis B.
C. is not infectious for hepatitis B and has not acquired immunity to hepatitis B.
D. has never been infected with hepatitis B.

Heavy cigarette smoking significantly increases the incidence of:

A. aphthous stomatitis.
B. geographic tongue.
C. lichen planus.
D. atrophic glossitis.
E. mucosal pigmentation.

Which of the following should be performed to ensure a well-adapted and functional stainless steel crown?

A. Prepare the tooth with sharp line angles.
B. Break interproximal contacts using a tapered bur.
C. Prepare a well-defined chamfer margin.
D. Cement the crown with rubber dam in place.
Which drug(s) control(s) pain and reduce(s) inflammation?

1. Acetylsalicylic acid.
2. Acetaminophen.
3. Ibuprofen.
4. Meperidine HCl.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

What statement related to self-threaded pins is FALSE?

A. The ideal depth for the pin hole is 3mm.
B. The pin does not increase fracture resistance of the restoration.
C. The pin can increase retention of the restoration.
D. The drill has a smaller diameter than the pin.

Which of the following is the most important determinant for the maximum length of a post in an endodontically treated tooth?

A. Distance between the crestal bone and root apex.
B. Crown/root ratio.
C. Maintenance of an apical gutta-percha seal.

Overlapping contacts on a bitewing radiograph result from

1. malalignment of teeth.
2. incorrect vertical angulation of the x-ray beam.
3. incorrect horizontal angulation of the x-ray beam.
4. patient movement during the exposure.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Recurring tooth rotations occur most frequently after orthodontic correction due to

A. density of the cortical bone.
B. persistence of tongue and finger habits.
C. free gingival and transseptal fibres.
D. oblique fibres of the periodontal ligament.

During the setting phase, a dental stone mixture will exhibit

A. expansion.
B. contraction.
C. loss in compressive strength.
D. gain in moisture content.

A radiopaque area within the alveolar process containing several rudimentary teeth suggests a/an

A. periapical cemental dysplasia.
B. ameloblastoma.
C. compound odontoma.
D. complex odontoma.
E. Pindborg tumor.

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Sensitivity related to a noncarious cervical lesion is best explained by the
A. thermal conductivity of dentin.
B. hydrodynamic theory.
C. dentinogenesis process.
D. neurogate mechanism.
E. inorganic component of dentin.

Fixed orthodontic appliances are generally more efficient than removable appliances because conventional fixed appliances
A. provide 3-dimensional control of tooth movement.
B. promote improved oral hygiene.
C. provide intermittent force application.
D. are individualized to each patient.

A ceramometal posterior fixed partial denture pontic should
A. be constructed to have an occlusal surface one quarter the width of the tooth it replaces.
B. be constructed to have an occlusal surface wider than the width of the tooth it replaces.
C. cover as much mucosa as possible.
D. provide adequate embrasure spaces.

Which of the following muscles is most likely to be affected by a depressed fracture of the zygomatic arch?
A. Lateral pterygoid.
B. Temporalis.
C. Masseter.
D. Medial pterygoid.

The most appropriate treatment for an endodontically treated molar with an existing MOD restoration is a
A. cast gold inlay.
B. bonded composite resin.
C. bonded silver amalgam.
D. cast restoration with cuspal coverage.

The normal differential white cell count for neutrophils is
A. 10-19%.
B. 20-29%.
C. 30-39%.
D. 40-65%.
E. 66-90%.

A 45 year old with insulin dependent diabetes mellitus comes for a morning dental appointment. During the examination, the patient complains of being lightheaded and weak. Sweating is observed. The patient is most likely experiencing
A. hyperglycemia.
B. hypoglycemia.
C. syncope.
D. hyperventilation.
E. cerebrovascular accident.

Acid etching of dentin with 10-15% phosphoric acid for 15-20 seconds
1. removes the smear layer.
2. increases dentinal permeability.
3. opens the dentinal tubules.
4. decalcifies the intertubular and peritubular dentin.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

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When uprighting a molar to be used as a bridge abutment, consideration must be given to the

A. local periodontium.
B. vertical changes due to tipping of the molar.
C. residual space for a pontic.
D. use of fixed appliances for optimum control.
E. All of the above.

In a tooth with complete pulpal necrosis, the periradicular region is affected if

A. there is pain to thermal stimuli.
B. the tooth throbs when the patient is lying down.
C. there is pain on percussion.
D. there is no response to an electric pulp test.

Following trauma, bluish-grey discolouration of the crown of an anterior tooth is due to

A. external resorption.
B. pulpal hemorrhage.
C. discoloured composite restoration.
D. chromogenic bacteria.

Acetaminophen in therapeutic doses

1. retards platelet function.
2. has strong anti-inflammatory properties.
3. produces CNS stimulation.
4. has antipyretic properties.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Advanced chronic periodontitis is characterized by

A. attachment loss greater than 5mm.
B. periodontal pockets greater than 5mm.
C. presence of purulent exudate.
D. presence of a Class I furcation involvement.

Temporary anchorage devices (TADS) have the greatest effect on which orthodontic movement?

A. Extrusion.
B. Torqueing.
C. Intrusion.
D. Tipping.

A 12 year old male with a history of thumbsucking has an Angle Class II malocclusion with a SNA = 82° and a SNB = 80°. The most likely etiology is

A. dental.
B. skeletal.
C. neuromuscular.
D. dental and neuromuscular.
E. skeletal and neuromuscular.

A diagnostic test for dental caries which has low sensitivity and high specificity will result in

A. unnecessary treatment being provided.
B. undetected disease.
C. patients being alarmed unnecessarily.
D. a test whose performance does not justify its cost.

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Which lesion(s) may appear radiographically as multilocular radiolucencies?

1. Ameloblastoma.
2. Odontogenic myxoma.
4. Central giant cell granuloma.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following is NOT a true cyst?

1. Dentigerous cyst.
2. Odontogenic keratocyst.
3. Traumatic bone cyst.
4. Radicular cyst.
5. Lateral periodontal cyst.

A. (1) and (3)
B. (1) and (4)
C. (1) and (5)
D. (2) and (5)
E. (3) and (5)

When performing a periodontal screening and recording (PSR) for a patient, the code asterisk (*) is used for a sextant when

A. a tooth in the sextant needs to be extracted.
B. all the teeth in the sextant are missing.
C. a mucogingival problem is present.
D. a tooth in the sextant has supraerupted.

Oral lesions failing to heal may be related to

1. tuberculosis.
2. syphilis.
3. neoplasia.
4. diabetes.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The most common location of a lateral periodontal cyst is in the area of the

A. maxillary incisors.
B. maxillary molars.
C. mandibular premolars.
D. mandibular molars.

In severe gingival recession, if the marginal tissue extends to the mucogingival junction, and there is loss of interdental tissue, the likelihood of complete root coverage after gingival grafting is

A. greater than 75%.
B. between 25 and 50%.
C. less than 20%.

Procaine (Novocaine®) is an example of a local anesthetic which is chemically classified as an

A. amide.
B. ester.
C. aldehyde.
D. ethamine.
E. aminide.

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Infraosseous defects may occur at the
1. palatal surface of maxillary anterior teeth.
2. buccal and lingual surfaces of molars.
3. interproximal areas.
4. bifurcations and trifurcations.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The management of syncope following local anesthetic administration does NOT include
A. elevating the legs.
B. placing in a supine position.
C. administering oxygen.
D. ensuring the airway is open.
E. administering epinephrine.

A daily dose of 81 mg of acetylsalicylic acid is used for its
A. analgesic properties.
B. antipyretic effect.
C. antiplatelet action.
D. anti-inflammatory function.

Odontoblast nuclei displacement into adjacent dentinal tubuli is thought to be
1. a reversible pathologic condition.
2. due to increased intrapulpal tissue pressure.
3. due to contraction of collagen fibres.
4. more frequent following the use of air coolant rather than water coolant.
5. one of the first histological changes following operative trauma.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A patient with pain, fever and unilateral parotid swelling following a general anesthetic most likely has
A. Mumps.
B. sialolithiasis.
C. acute bacterial sialadenitis.
D. Sjögren’s syndrome.
E. sarcoidosis.

Cleidocranial dysostosis is distinguished by
A. usually shortened skull.
B. delayed suture closure.
C. persistence of deciduous teeth.
D. clavicles absent or maldeveloped.
E. All of the above.

Problems arising from impacted teeth include
A. infection.
B. pain.
C. predisposition to fracture.
D. All of the above.

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To initiate caries, bacterial plaque pH must reach

A. 5.4.
B. 5.9.
C. 6.4.
D. 6.9.

Orthodontic growth modification should be

A. started as early as possible.
B. individualized to maximize effect.
C. delayed until the eruption of the permanent dentition.
D. used in adult treatment.

Which of the following clinical approaches would reduce the tendency to the post-extraction complication of dry socket?

1. Post-extraction socket dressing with topical chlorhexidine.
2. Pre-extraction control of pericoronitis.
3. Use of a pre-operative mouthrinse of 0.2% chlorhexidine gluconate.
4. Use of systemic antibioprophylaxis.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

In infectious mononucleosis you are most likely to find

1. a positive Paul Bunnel test.
2. lymphadenopathy.
3. palatine petechiae.
4. leukopenia.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Acquired immunodeficiency syndrome (AIDS) is caused by a/an

A. adenovirus.
B. retrovirus.
C. picovirus.
D. coronavirus.

The most likely complication following surgery for a patient with thrombocytopenic purpura would be

A. angina.
B. hemorrhage.
C. alveolar osteitis.
D. delayed healing.
E. infection.

Prior to cementing an onlay in a vital tooth using a resin cement, the application of cavity varnish will

A. protect the pulp.
B. improve seal.
C. reduce prevent postoperative sensitivity.
D. reduce bond strength.
E. reduce microleakage.

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E. reduce microleakage.
A hinge axis facebow records
A. Bennett angle.
B. centric relation.
C. lateral condylar inclination.
D. horizontal condylar inclination.
E. opening and closing axis of the mandible.

The tooth preparation for a porcelain veneer must have a/an
A. incisal reduction of 0.5mm.
B. space for the veneer material.
C. margin at least 1mm supragingivally.
D. butt joint gingival margin.

A rubber dam should be used in
A. pulp capping procedures.
B. amalgam placement.
C. composite placement.
D. removing carious dentin from deep lesions.
E. all of the above.

Unconsciousness in syncope results from
A. electrolyte imbalance.
B. neurogenic shock.
C. cerebral hyperemia.
D. cerebral hypoxia.

A patient presenting with diplopia, exophthalmos, nasal bleeding and swelling, may suffer from a fracture of the
A. neck of the condyle.
B. body of the mandible.
C. zygomatic bone.
D. maxillary tuberosity.

Recurrent herpes labialis is
A. caused by a different organism than is primary herpetic gingivostomatitis.
B. a form of disease which heals by scarring.
C. occurs more frequently in children.
D. a contagious lesion.

As gingival inflammation progresses to marginal periodontitis, the associated changes are:
A. Apical migration and disintegration of the epithelial attachment.
B. Resorption of the alveolar crest.
C. Destruction of the alveolar crest and periodontal ligament fibres.
D. All of the above.
E. None of the above.

A surgical flap approach to periodontal pocket elimination permits
A. healing by primary intention.
B. retention of gingiva.
C. access to perform osseous recontouring.
D. All of the above.

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A drug that affects alkaline phosphatase activity would target

A. muscles and bones.
B. skin and teeth.
C. bones and teeth.
D. muscles and skin.

Chelating agents are useful to treat a tooth with a/an

A. curved canal.
B. sclerotic canal.
C. periapical abscess.
D. root perforation.
E. open apex.

Pulpation gives information as to

1. induration.
2. tenderness.
3. size.
4. fixation.
5. mobility.

A. (1) (3) (4)
B. (2) and (5)
C. (2) (4) (5)
D. (1) (2) (4) (5)
E. All of the above.

In the context of informed consent, choice means the ability

A. to accept recommended beneficial treatment voluntarily.
B. to refuse recommended beneficial treatment voluntarily.
C. to refuse recommended beneficial treatment with an understanding of foreseeable consequences.

Destruction of bone in periodontal disease occurs

A. continuously.
B. in cycles lasting for about 3~months.
C. in random cycles.
D. None of the above.

Pressure and tension have little effect on growth of

A. the fronto-maxillary suture.
B. the alveolus.
C. the mandible.
D. cartilage.

Bilateral dislocated fractures of the mandibular condyles result in

1. anterior open bite.
2. anesthesia of the mental nerves.
3. inability to protrude the mandible.
4. inability to bring the molars into contact.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.
A patient with periodontal disease may complain of

1. loose teeth.
2. bleeding gingiva.
3. pain.
4. gingival recession.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following processes is NOT active in causing tooth eruption?

A. Growth of the dentin.
B. Growth of the root.
C. Growth of the enamel.
D. Pressure from periapical tissue.

Sucralose

A. breaks down at high temperatures and cannot be used in baking.
B. is a derivative of sucrose.
C. is twice as sweet as table sugar.
D. causes constipation when ingested in excessive amounts.

In partial denture design, the major connector should

A. rigidly connect the bilateral components.
B. act as a stress-breaker.
C. not interfere with lateral forces.
D. dissipate vertical forces.

Which of the following are the most appropriate for use as overdenture abutments?

A. Central incisors.
B. Second premolars.
C. Canines.
D. First premolars.

Pathologic migration of teeth is due to

A. lip incompetence.
B. tongue thrust.
C. bruxism.
D. periodontitis.

A benign neoplasm of bone is called a/an

A. fibrous dysplasia.
B. osteoma.
C. torus.
D. sarcoma.
E. osteosarcoma.

The maxillary cast partial denture major connector design with the greatest potential to cause speech problems is

A. a thick narrow major connector.
B. an anterior and a posterior bar.
C. a thin broad palatal strap.
D. narrow horseshoe shaped.
Which drug controls and reduces inflammation?

A. Codeine.
B. Acetaminophen.
C. Ibuprofen.
D. Meperidine HCl.

The earliest radiographic sign of traumatic occlusion is

A. hypercementosis.
B. root resorption.
C. alteration of the lamina dura.
D. widening of the periodontal ligament space.
E. ankylosis.

An amalgam coronal-radicular core build-up for endodontically treated molar teeth requires

A. an adequate pulp chamber and ferrule.
B. a pulp chamber, ferrule and amalgam bonding.
C. the presence of a post.
D. the use of retentive threaded pins.

Therapeutic doses of morphine administered intramuscularly may produce

1. constipation.
2. euphoria.
3. drowsiness.
4. dysphoria.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A 70 year old insulin-dependent patient has just completed a 7-day course of ampicillin for a respiratory infection. He has signs and symptoms consistent with oral candidiasis. Which of the following drugs is the most appropriate treatment?

A. Nystatin.
B. Acyclovir.
C. Clindamycin.
D. Ampicillin.
E. Metronidazole.

A 9 year old presents immediately after the avulsion of a permanent maxillary central incisor. Which of the following is the most appropriate management prior to re-implantation?

A. Rinse the tooth with saline.
B. Curette the root surface.
C. Amputate the apex.
D. Extirpate the pulp.

Gingivectomy is indicated for

1. pseudopockets.
2. suprabony pockets.
3. fibrotic gingival enlargements.
4. infrabony pockets.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

When a partial denture framework fits the master cast but does not fit properly in the mouth, the error is likely to be in the

A. impression making.
B. casting of the framework.
C. design of the framework.
D. preparation of the teeth.
The most effective drug for relief of angina pectoris is
A. codeine.
B. digitalis.
C. quinidine.
D. nitroglycerin.
E. pentobarbital sodium.

Which of the following is the most characteristic gingival feature of agranulocytosis?
A. Hematoma.
B. Ulceration.
C. Erythema.
D. Fibromatosis.

In pin-retained restorations, the pin holes should be parallel to the
A. long axis of the tooth.
B. nearest external surface.
C. pulp chamber.
D. axial wall.

A patient presents with hypodontia, conical teeth, fine, scanty, fair hair, and an intolerance to hot weather. The most likely diagnosis is
A. achondroplasia.
B. malignant hyperthermia.
C. ectodermal dysplasia.
D. cystic fibrosis.

The main purpose of flux in soldering is to
A. dissolve surface oxides and prevent further oxidation.
B. prevent recrystallization and grain growth.
C. prevent oxidation and lower the melting range of the solder.
D. dissolve surface oxides and lower the melting range.

Which gingival manifestation(s) would be expected in a patient with a blood dyscrasia?
1. Enlargement.
2. Bleeding.
3. Ulceration.
4. Atrophy.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Trauma from occlusion
A. initiates gingivitis.
B. affects the blood supply to gingivae.
C. initiates periodontitis.

DMF-S is an index for expressing
A. dental needs.
B. tooth mortality.
C. extent of dental neglect.
D. dental caries.

The radiographic change most suggestive of multiple myeloma is
A. no bone alteration.
B. punched out radiolucent lesions.
C. multiple radiopaque lesions.
D. diffuse ground glass appearance.
E. generalized hypercementosis.

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Which of the following may be associated with a fracture of the mandible?

1. Diplopia.
2. Malocclusion.
3. Swelling of the orbit.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

During the administration of local anesthesia, positive aspiration of blood will occur most often in an

A. mental or incisive block.
B. posterior superior alveolar block.
C. inferior alveolar block.
D. anterior superior alveolar block.
E. long buccal nerve block.

The most likely origin of a metastatic carcinoma of the mandible is a primary lesion of the

1. lung.
2. breast.
3. prostate.
4. nasopharynx.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The absence of adequate drainage in a periodontal pocket may result in

A. cyst formation.
B. abscess formation.
C. epithelial hyperplasia.
D. increased calculus formation.

A. Ice water.
B. Air jet.
C. CO₂ (dry ice).
D. Ethyl chloride.

Intravenous administration of epinephrine results in

1. increased systolic pressure.
2. increased heart rate.
3. palpitations.
4. respiratory depression.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Hypoglycemia in a diabetic patient can be characterized by

1. nausea.
2. palpitations.
3. sweating.
4. mental confusion

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following agents is most effective in cold testing?
Patients with primary herpetic gingivostomatitis should NOT receive

A. acetaminophen.
B. acyclovir.
C. benzocaine.
D. prednisone.
E. chlorhexidine.

When placed into sound dentin, a self-threading pin will

A. increase tensile strength of an amalgam restoration.
B. strengthen the amalgam.
C. cause pulpal inflammation.
D. increase the retention of an amalgam restoration.

The main functions of fat soluble vitamins are:

1. Vitamin E is an important antioxidant.
2. Vitamin A is important in the formation of visual purple.
3. Vitamin D promotes intestinal calcium and phosphate absorption.
4. Vitamin K catalyzes the synthesis of prothrombin.
5. Vitamin A maintains the integrity of mucous membranes.

A. (1) (2) (3)
B. (1) (4) (5)
C. (2) (3) (4)
D. All of the above.

Which of the following is/are true regarding a tooth filled with a formaldehyde-containing paste?

A. Formaldehyde-containing pastes remain non-approved.
B. The drug manufacturer may be liable, along with the dentist.
C. Formaldehyde-containing pastes have a high antigenic potential.
D. There are cases on record of parasthesia following overextrusion of such a paste in the vicinity of the mandibular nerve.
E. All of the above.

After the crown completion stage, trauma to a developing tooth may be responsible for

A. enamel hypoplasia.
B. gemination.
C. dilaceration.
D. fusion.

Prior to the correction of a one tooth anterior crossbite, the principle factor to consider is the

A. adequacy of mesio-distal space.
B. developmental age of the patient.
C. sequence of eruption of the permanent dentition.
D. morphology of the anterior teeth.

With respect to local anesthetic, which of the following will elicit the most rapid response in a patient?

A. Too large a dose.
B. Rapid absorption.
C. Slow elimination.
D. Intravascular injection.
E. Slow biotransformation.

Which of the following is a clinical CONTRAINDICATION for an all-ceramic maxillary anterior crown?

A. Excessive overjet and overbite.
B. Normal overjet and excessive overbite.
C. An endodontically treated tooth with a cast post and core.
D. A low caries index.

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An infected pulp may cause a(n)
A. odontogenic keratocyst.
B. dentigerous cyst.
C. periapical cemento-osseous dysplasia.
D. simple bone cyst (traumatic bone cyst).
E. periradicular cyst.

Which of the following is most often associated with a nonvital tooth?
A. Chronic periradicular periodontitis.
B. Internal resorption.
C. Periapical cemento-osseous dysplasia.
D. Hyperplastic pulpitis.

Metronidazole can be used to treat
A. denture stomatitis.
B. recurrent aphthous ulceration.
C. necrotizing ulcerative gingivitis (NUG).
D. primary herpetic ulceration.

"Dental age" is defined as the
A. stage of dental maturation.
B. eruption time of a given tooth.
C. number of years elapsed since a given tooth has erupted.

A removable partial denture rest should
A. be extended for retention.
B. increase retention of the partial denture.
C. direct forces parallel to the long axis of the abutment.
D. be located on a centric contact.

The tooth preparation for a porcelain veneer must create a/an
A. rough surface for improved bonding.
B. space for an appropriate thickness of the veneering material.
C. margin well below the gingival crest.
D. definite finish line.

When cementing a gold inlay with a zinc phosphate cement, the best way to ensure accurate seating is to
A. apply a firm pressure on the inlay until the cement is set.
B. mix the cement rapidly to allow ample time for insertion.
C. ask the patient to lightly tap on the restoration until the occlusion is comfortable.
D. force the restoration in place with an orange wood stick and mallet.
E. relieve the internal angles of the inlay before insertion.

Which of the following drugs potentiates the action of sedative drugs?
A. Digitalis.
B. Promethazine.
C. Propranolol.
D. Nifedipine.
E. Spironolactone.

In an 8 year old patient the most appropriate treatment of a vital permanent molar with a large carious exposure is
A. pulpotomy.
B. pulpectomy.
C. direct pulp capping.
D. indirect pulp capping.
The direct immunofluorescence pattern seen in pemphigus vulgaris has been described as

A. target-like.
B. chicken wire.
C. soap-bubble.
D. corrugated.
E. cotton wool.

The most appropriate restoration for a primary molar with extensive carious destruction of the crown is a

A. posterior composite resin.
B. pin retained amalgam.
C. stainless steel crown.
D. glass ionomer.

The most appropriate time to remove a supernumerary tooth that is disturbing the eruption of a permanent tooth is

A. as soon as possible.
B. after two thirds of the permanent root has formed.
C. after the apex of the permanent root has closed.
D. after the crown appears calcified radiographically.

The use of a retraction cord impregnated with 8% racemic epinephrine may be hazardous for some patients because of its

A. local caustic action on the gingival tissue.
B. potential for systemic reaction.
C. local astringent action.

Management of a patient with an acute periapical abscess should include

1. elimination of the cause.
2. drainage.
3. supportive therapy.
4. external hot compresses.

Hardening of Type IV cast gold dental alloys by heat treatment increases

A. ductility.
B. yield strength.
C. coring.
D. elastic modulus.
E. malleability.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

If removal of teeth is indicated in a patient who is to receive radiation therapy for a carcinoma of the tongue, the teeth should be extracted

A. prior to the radiation therapy.
B. during the radiation therapy.
C. immediately post-radiation therapy.
D. six months post-radiation therapy.

A. Alveolar ridge keratosis.
B. Candidiasis.
C. Lichen planus.
D. Squamous cell carcinoma.

What is the most likely diagnosis of a white lesion on the retromolar pad opposing a non-functional molar?

A. Alveolar ridge keratosis.
B. Candidiasis.
C. Lichen planus.
D. Squamous cell carcinoma.

Note: Some of the items in the Released Test Item Bank may have been discontinued due to outdated science or errors. The NDEB periodically reviews the Bank to improve its quality, content, and translation.
Which of the following factors could cause a partial denture framework to fit tighter in the mouth than on the cast?

A. Too much water in the mix of the stone for the cast.
B. Not enough water in the mix of the stone for the cast.
C. Duplication impression slightly oversized.
D. Improper wax-up of the partial denture.

A principal reason for NOT removing a third molar with acute pericoronitis is the risk of

A. osteomyelitis.
B. bacteremia.
C. difficulty achieving anesthesia.
D. spread of infection.

A centric relation record must be used to articulate casts in which of the following cases?

A. More than one third of the patients occlusal contacts are to be restored.
B. The vertical dimension of occlusion will be modified on the articulator.
C. The patient shows signs of a temporomandibular disorder.
D. The patient's centric occlusion and centric relation do not match.

Protracted use of tetracycline may produce symptoms of vitamin K deficiency because tetracycline

A. is detoxified by the liver.
B. combines chemically with vitamin K.
C. inhibits growth of intestinal bacteria.
D. interferes with the conversion of prothrombin to thrombin.

Primary occlusal trauma can cause

A. gingival recession.
B. furcation involvement.
C. horizontal bone loss.
D. tooth sensitivity.

Interceptive orthodontic treatment CANNOT alter the

A. final basal bone width of the mandible.
B. direction of growth of the mandible.
C. arch space available for the eruption of the permanent dentition.
D. angulation of the teeth.

A centric relation record must be used to articulate casts in which of the following cases?

A. More than one third of the patients occlusal contacts are to be restored.
B. The vertical dimension of occlusion will be modified on the articulator.
C. The patient shows signs of a temporomandibular disorder.
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Primary occlusal trauma can cause

A. gingival recession.
B. furcation involvement.
C. horizontal bone loss.
D. tooth sensitivity.
What is the most frequent malignant tumour of the tongue?

A. Adenoma.
B. Adenocarcinoma.
C. Rhabdomyosarcoma.
D. Squamous cell carcinoma.
E. Granular cell myoblastoma.

Pleomorphic adenomas are most likely to exhibit

A. rapid growth with death of patient.
B. early metastasis.
C. slow growth but tendency to local recurrence.
D. early ulceration and hemorrhage.

Which of the following has clinically active metabolites?

A. Alprazolam.
B. Diazepam.
C. Lorazepam.
D. Midazolam.
E. Triazolam.

Which of the following symptoms are consistent with an anaphylactic reaction to penicillin?

A. Deafness, dizziness acute anemia and bronchial constriction.
B. Crystalluria, nausea, vomiting, diarrhea, and bronchial constriction.
C. Oliguria, hematuria, bronchial constriction, and cardiovascular collapse.
D. Urticaria, diarrhea, bronchial constriction and cardiovascular collapse.

A patient with complete dentures complains of clicking. The most common causes are

A. reduced vertical dimension and improperly balanced occlusion.
B. excessive vertical dimension and poor retention.
C. use of too large a posterior tooth and too little horizontal overlap.
D. improper relation of teeth to the ridge and excessive anterior vertical overlap.

The tissues of the epithelial attachment

A. are dynamic rather than static.
B. can be reconstituted by repair.
C. exhibit a high rate of biologic turnover.
D. All of the above.
E. None of the above.

Which of the following is the most potent corticosteroid?

A. Cortisone.
B. Dexamethasone.
C. Hydrocortisone.
D. Prednisone.
E. Triamcinolone.
As a dentist in Canada, it is ethical to refuse to treat a patient on the basis of

1. religious beliefs.
2. physical handicap.
3. infectious disease.
4. recognition of lack of skill or knowledge.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which one of the following would be of greatest value in determining the etiology of an oral ulceration?

A. History of the oral lesion.
B. Cytological smear.
C. Systemic evaluation.
D. Laboratory tests.

A patient who is a hepatitis B carrier presents for an extraction. The extraction should be delayed and

A. rescheduled at the end of the day for infection control.
B. an antibiotic prescribed prophylactically.
C. the patient referred to a hospital dental department.
D. an evaluation of liver function performed.

Propylthiouracil is a drug used in the treatment of

A. leukemia.
B. hyperthyroidism.
C. sodium retention.
D. intestinal parasites.

Enlargement of the gingiva, described as idiopathic fibromatosis, is best described as

A. degeneration.
B. inflammation.
C. hyperplasia.
D. neoplasia.

Following periodontal debridement, reduction in pocket depth is primarily due to

A. decreased inflammation.
B. reattachment of gingival fibers.
C. epithelial "adhesion" to the tooth.
D. connective tissue regeneration.

A Class II dental occlusion in the mixed dentition will likely

A. develop into a Class I occlusion after normal exfoliation of the primary molars.
B. worsen with forward growth of the maxilla.
C. develop into a Class I occlusion with late mandibular growth.
D. develop into a skeletal malocclusion with growth of the maxilla and mandible.
E. not change as the maxilla and mandible grow.

Intermittent painful swelling in the submandibular region that increases at mealtime is indicative of

A. a ranula.
B. a blockage of Wharton's duct.
C. Ludwig's angina.
D. a blockage of Stensen's duct.
E. an epidemic parotitis.

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Which of the following statements is/are true regarding acetylcholine?

1. It is the neurotransmitter at both sympathetic and parasympathetic ganglia.
2. It is rapidly hydrolysed in the body by cholinesterase.
3. It can produce both muscarinic and nicotinic actions.
4. It is the drug of choice as an antidote to atropine poisoning.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The accuracy of alginate impression materials will be improved if

A. the space between the tray and the teeth is 1-2mm.
B. the space between the tray and the teeth allows 4-5mm of alginate.
C. the impression is removed slowly from the undercuts around the teeth.
D. the impression is immersed in disinfectant for 1 hour before pouring.

A fistula found in association with a non-vital tooth should be

1. cauterized to remove the epithelium.
2. traced to source with a gutta-percha point on a radiograph.
3. treated with combined surgical and nonsurgical root canal therapy.
4. treated with nonsurgical root canal therapy.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The diagnosis of a 1.5cm white patch after incisional biopsy is severe epithelial dysplasia. The most appropriate management is

A. complete excision.
B. repeat biopsy.
C. radiation therapy.
D. observation.

A. peg-shaped teeth.
B. partial anodontia (hypodontia).
C. Hutchinson's incisors.
D. enamel hypoplasia.
E. dentinogenesis imperfecta.

During tooth development, vitamin A deficiency may result in

A. Odontogenic adenomatoid tumor.
B. Periapical cemental dysplasia.
C. Calcifying epithelial odontogenic tumor.
D. Cementoblastoma.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Type I hypersensitivity results from cross-linking of which immunoglobulin on mast cells?

A. IgA.
B. IgD.
C. IgE.
D. IgG.
E. IgM.

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Following the insertion of complete dentures, a generalized soreness over the entire mandibular alveolar ridge can be caused by

A. Inadequate interocclusal distance.
B. Impingement on the buccal frenum.
C. High muscle attachments.
D. Excess border thickness.

The most common location for periapical cemento-osseous dysplasia is the

A. Maxillary anterior region.
B. Mandibular anterior region.
C. Mandibular premolar region.
D. Maxillary posterior region.

A study examined caries in 349 children 2 to 6 years of age living in the Northwest Territories. The odds ratio for severe caries based upon whether the child drank milk was 0.44 (95% CI = 0.23 to 0.84). Which of the following is the most appropriate interpretation of these results? Drinking milk

A. Was protective against caries.
B. Was not protective against caries.
C. Had no effect on caries.

The most likely reason for porcelain fracturing off a long and narrow metal-ceramic fixed partial denture is that the framework alloy had an insufficient

A. Elastic modulus.
B. Proportional limit.
C. Fracture toughness.
D. Tensile strength.

Which of the following does NOT have a multilocular radiolucent appearance?

A. Ameloblastoma.
B. Odontogenic myxoma.
C. Stafne's bone defect/static bone cavity.
D. Central giant cell granuloma.
E. Cherubism.

An 8 year old patient has a 3mm diastema between the erupting permanent maxillary central incisors. What is the most likely cause?

A. Failure of fusion of the premaxillae.
B. Abnormal labial frenum.
C. Supernumerary tooth in the midline.
D. Normal eruption pattern.

Burning mouth syndrome is associated with

A. Clinically normal-appearing mucosa.
B. Clinically erythematous, atrophic-appearing mucosa.
C. Candidal pseudohyphae on cytologic smears.
D. Keratinocytes with enlarged nuclei on cytologic smears.

Extreme widening of the periodontal ligament may be seen in

A. Parkinson's disease.
B. Raynaud's disease.
C. Bell's palsy.
D. Osteosarcoma.
E. Ménière's syndrome.
Differential diagnosis for short term pain and swelling of the gingiva associated with an endodontically treated tooth should include

1. periodontal abscess.
2. periapical abscess.
3. vertical root fracture.
4. internal root resorption.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Carious lesions are most likely to develop if a patient has

A. a high lactobacillus count.
B. saliva with low buffering capacity.
C. plaque on his teeth.
D. lactic acid in his mouth.

A child on antibiotic therapy would be more likely to develop

A. herpangina.
B. pemphigus.
C. candidiasis.
D. herpetic gingivostomatitis.

Which of the following cells are characteristic of chronic inflammation of the dental pulp?

1. Neutrophils.
2. Eosinophils.
3. Lymphocytes.
4. Macrophages.
5. Plasma cells.

A. (1) (2) (3)
B. (1) and (2)
C. (1) (4) (5)
D. (1) and (5)
E. (3) (4) (5)

Particulate hydroxyapatite, when placed subperiostially,

1. is highly biocompatible.
2. has a low incidence of secondary infection following surgery.
3. has a tendency to migrate following insertion.
4. induces bone formation throughout the implanted material.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The major connector of a removable partial denture should be designed to

A. connect rigidly the component parts of the partial denture.
B. act as a stress-breaker.
C. dissipate vertical forces.

In the pterygomandibular space, the inferior alveolar nerve passes

A. anterior to the deep tendon of the temporal muscle.
B. lateral to the sphenomandibular ligament.
C. medial to the medial pterygoid muscle.
D. medial to the pterygomandibular raphe.

In an infrabony periodontal pocket, the tip of the periodontal probe is located

A. at the level of the alveolar crest.
B. coronal to the level of the alveolar crest.
C. apical to the level of the alveolar crest.

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The greatest risk to dental health care personnel for acquiring a blood-borne pathogen is through
A. blood spatter on intact skin.
B. salivary contamination of clinic jackets.
C. manufacturing defects in gloves.
D. percutaneous injury.

Which of the following is NOT a true cyst?
A. Dentigerous cyst.
B. Traumatic (simple bone) cyst.
C. Radicular cyst.
D. Nasopalatine cyst.

A panoramic radiograph taken at 10 years of age can be used to
A. measure the space between the temporomandibular joint disc and the condyle.
B. calculate the amount of crowding in the maxilla.
C. predict the probability of canine impaction.
D. assess the severity of midline deviation.

An 8 year old patient with all primary molars still present exhibits a cusp-to-cusp relationship of permanent maxillary and mandibular first molars and good alignment of the lower incisors. The management of this patient should be to
A. refer for orthodontic consultation.
B. use a cervical headgear to reposition maxillary molars.
C. disk the distal surfaces of primary mandibular second molars.
D. place patient on appropriate recall schedule.

For an acid-etched Class III composite resin, the cavosurface margin of the cavity can be bevelled to
1. eliminate the need for internal retention.
2. improve convenience form.
3. aid in finishing.
4. increase the surface area for etching.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The earliest radiographic sign of occlusal trauma is
A. hypercementosis.
B. root resorption.
C. alteration of the lamina dura.
D. widening of the periodontal ligament space.
E. ankylosis.

Chewing “automatism” is dependent on which mechanism?
A. Reflexes between jaw closing and opening muscles.
B. Swallowing and respiration neuronal activity.
C. Periodontal receptor stimulation.
D. Reticular formation neuronal activity.

Dietary consumption of which of the following inhibits the cytochrome P450 system?
A. Meat.
B. Broccoli.
C. Decaffeinated tea.
D. Grapefruit juice.
Using pins to retain amalgam restorations increases the risk of

1. cracks in the teeth.
2. pulp exposures.
3. thermal sensitivity.
4. periodontal ligament invasion.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Increasing the kVp results in

A. increased long scale image contrast.
B. increased short scale image contrast.
C. decreased long scale image contrast.
D. decreased short scale image contrast.

The primary use of nitrous oxide and oxygen in dentistry today is as a(n)

A. substitute agent for local anesthesia.
B. general anesthetic agent.
C. agent for conscious sedation.
D. agent for the management of chronic obstructive pulmonary disease.

The primary reason for placing a surgical dressing after a gingivectomy is to

A. prevent hemorrhage.
B. protect the wound.
C. stabilize the teeth.
D. protect the sutures.

A single adjustment of an expansion screw in a removable appliance for dental arch expansion will cause an expansion of

A. 0.25mm.
B. 0.5mm.
C. 0.75mm.
D. 1mm.

Trismus is most frequently caused by

A. tetanus.
B. muscular dystrophy.
C. infection.
D. mandibular fracture.

The polishing of an amalgam restoration

A. should not be performed before 24 hours after insertion.
B. completely prevents tarnish from occurring.
C. removes the mercury rich surface layer of the amalgam.
D. is more permanent if the surface is heated during the procedure.

A periapical infection of a mandibular third molar may spread by direct extension to the

1. parapharyngeal space.
2. submandibular space.
3. pterygomandibular space.
4. submental space.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.
For a 4 year old child, the most appropriate management for a chronically infected, non-restorable primary first molar is to

A. extract it and place a space maintainer.
B. observe it until it exfoliates.
C. extract it.
D. observe it until it becomes symptomatic.

If an alginate impression must be stored for a few minutes before the cast is poured, it should be placed in

A. water.
B. 100% relative humidity.
C. a 1% aqueous calcium sulfate solution.

Gingival inflammation may result from

A. trauma.
B. chemical irritation.
C. plaque.
D. All of the above.

An acute periapical abscess originating from a mandibular third molar generally points and drains in the

A. submandibular space.
B. pterygomandibular space.
C. buccal vestibule.
D. buccal space.

Accessory root canals develop because root odontoblasts fail to

A. produce matrix.
B. survive.
C. divide.
D. differentiate.

Cardiac arrhythmias are most commonly seen during administration of

A. thiopental.
B. halothane.
C. ethyl ether.
D. nitrous oxide.

For an avulsed, fully developed permanent tooth that has been reimplanted, a favourable prognosis is most affected by the

A. length of time the tooth has been out of the mouth.
B. use of an appropriate antibiotic.
C. effectiveness of the irrigation of the socket.
D. rigidity of the splint.
E. thoroughness of the curettage of the root surface.

A patient complains of lip and tongue hypersensitivity (allodynea) following intake of hot, spicy food. The sensory nerve fibers that are associated with this form of pain are

A. A-alpha.
B. A-beta.
C. A-gamma.
D. A-delta and C.
A 3 year old requires the extraction of a deciduous maxillary second molar. The local anesthetic technique of choice is

A. a posterior superior alveolar block.
B. buccal and palatal infiltration.
C. a tuberosity block plus subperiosteal infiltration of the mesio-buccal root.
D. an infra-orbital block.

What is the most significant radiographic finding in hyperparathyroidism?

A. Demineralization of teeth.
B. Multiple keratocystic odontogenic tumors.
C. Hypercementosis.
D. Rampant caries.
E. Generalized loss of lamina dura.

An 8 year old has lost tooth 1.1. Tooth 1.2 will most likely erupt

A. without encroaching upon the space for tooth 1.1.
B. encroaching upon the space for tooth 1.1.
C. distally to the space for tooth 1.2.

A common clinical sign of occlusal traumatism is

A. tooth mobility.
B. pocket formation.
C. gingival recession.
D. temporomandibular joint pain - dysfunction syndrome.
E. pulp calcifications.

Which of the following will produce hemostasis when applied topically?

1. Oxidized cellulose.
2. Absorbable gelatin sponge.
3. Microfibrillar collagen.
4. Topical bovine thrombin.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Maxillary furcation involvements are best assessed clinically by probing with a

A. Williams probe.
B. Nabers probe.
C. Michigan “O” probe.
D. Periodontal Screening and Recording (PSR) probe.

Which line angle is NOT present in a Class V amalgam cavity preparation?

A. Mesioaxial.
B. Axiopulpal.
C. Gingivoaxial.
D. Distoaxial.
E. Occlusoaxial.
Fractures of the maxilla can best be diagnosed by
1. lateral jaw radiographs.
2. clinical examination.
3. evidence of periorbital edema.
4. anteroposterior radiograph of the skull.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Periapical cemental dysplasia is
A. painful.
B. expansile.
C. associated with vital teeth.
D. premalignant.

The apical region of a non-vital tooth with a deep carious lesion may radiographically show
1. widening of the periodontal space.
2. loss of lamina dura.
3. a circumscribed radiolucency.
4. calcification of the periodontal membrane.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following statements is correct with respect to zinc containing amalgams?
A. High copper amalgam restorations containing zinc demonstrate better overall survival rates.
B. Amalgams containing zinc should be used when contamination with moisture is unavoidable during condensation.
C. Zinc is added during the manufacturing operation to increase the solubility of tin in silver.
D. Amalgams containing zinc produce a significantly better seal than zinc-free amalgams.

A 45 year old with insulin-dependent diabetes mellitus has a morning dental appointment. During the examination, the patient complains of being lightheaded and weak. Sweating is observed. The patient is most likely experiencing
A. hyperglycemia.
B. hypoglycemia.
C. syncope.
D. hyperventilation.
E. cerebrovascular accident.

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A hardened gold alloy will exhibit

A. less plastic deformation per unit of stress than the same alloy in a softened condition.
B. greater plastic deformation per unit of stress than the same alloy in a softened condition.
C. no difference in the plastic deformation per unit of stress of the alloy in hard or soft condition.

The principal use of the rubber dam during placement of a composite resin restoration is to provide

A. interproximal gingival retraction.
B. contrast between the tooth and the operating field.
C. access to the operating field.
D. protection from fluid contamination.

For a mandibular denture impression, the muscle determining the form of the lingual flange in the molar region is

A. mylohyoid.
B. geniohyoid.
C. medial pterygoid.
D. lateral pterygoid.
E. superior pharyngeal constrictor.

A 9 year old female patient presents with a Class I malocclusion with generally good alignment and interdigitation except tooth 1.2 is in lingual crossbite but has sufficient mesiodistal space for movement into the correct position. Correction of the lingual crossbite of tooth 1.2 with a finger spring on a removable appliance has the best long term prognosis for stability if tooth 1.2 is

A. lingually inclined, and in a position of 50% overbite.
B. ideally inclined, and in a position of 50% overbite.
C. lingually inclined, and in a position of 5% overbite.
D. ideally inclined, and in a position of 5% overbite.

What is the most appropriate management of a tooth which is sensitive to percussion but responds normally to electric pulp testing?

A. Pulpectomy.
B. Occlusal assessment.
C. Pulpotomy.
D. Restoration replacement.

An enameloma is

A. an odontoma.
B. an ameloblastoma.
C. a pearl of enamel.
D. an enamel hypocalcification.

Maintenance care for a patient treated for periodontal disease includes periodic assessment of

1. tooth mobility.
2. gingival sulcus depth.
3. signs of gingival inflammation.
4. oral hygiene status.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.
The redness of inflamed gingiva is due to
A. the degree of keratinization.
B. subgingival deposits.
C. increased collagen fiber density.
D. increased vasodilation.

Which treatment procedure is indicated for a patient with asymptomatic age related gingival recession?
A. Connective tissue graft.
B. Gingivoplasty.
C. Lateral sliding flap.
D. Gingival graft.
E. No treatment.

In its classic form, serial extraction is best applied to patients with Class I occlusions with crowding of
A. less than 10mm in each of the upper and lower arches and 35% overbite.
B. 10mm or more in each of the upper and lower arches and 35% overbite.
C. less than 10mm in each of the upper and lower arches and 70% overbite.
D. 10mm or more in each of the upper and lower arches and 70% overbite.

What is the most likely cause of food impaction at the site of a recently placed Class II composite resin restoration?
A. Inadequate proximal contact.
B. Gingival overhang.
C. Inadequate marginal ridge morphology.
D. Poor oral hygiene.

Which of the following statements is correct?
A. Epithelial cells are united to the basal lamina by hemidesmosomes.
B. The basal lamina is divided into lamina lucida and lamina densa.
C. The basal lamina is a product of epithelial cells.
D. All of the above.

Which of the following is correct regarding the hand-wrist radiograph?
A. Skeletal age is estimated by the presence or absence of osseous centres in particular bones compared with standards.
B. They are a precise measure of skeletal development in children.
C. They are of little value in orthodontic diagnosis.
D. The information they provide alone is enough to make an accurate determination of skeletal age.

What syndrome has multiple cysts of the jaws?
A. Gardner’s.
B. Gorlin-Goltz.
C. Peutz-Jeghers.
D. Sjögren’s.

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What clinical evidence would support a diagnosis of acute dento-alveolar abscess?

1. A negative reaction to the electric vitality tester.
2. A positive reaction of short duration to cold.
3. A positive reaction to percussion.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which permanent tooth usually erupts first?

A. Maxillary central incisor.
B. Maxillary canine.
C. Mandibular first molar.
D. Mandibular central incisor.

Gold casting alloys are classified as Type I-IV according to which of the following physical properties?

A. Percentage of gold present in the alloy.
B. Surface hardness.
C. Melting point.
D. Elastic strength.
E. Ductility.

A 12 year old female patient has a developmental age of 8 years. Radiographic examination reveals mandibular dysplasia, delayed growth of the cranial vault and reduced facial height. Dental development is equivalent to 10 years. Panoramic radiographs reveal an abnormal tooth eruption pattern, crowding of the primary and permanent teeth, delayed eruption of the permanent canines and absence of the premolars.

The most likely diagnosis is

A. hypogonadism.
B. hypoparathyroidism.
C. hypothyroidism.
D. hyposecretion of growth hormone.

If a polyvinyl siloxane material is used to make the final impression for a maxillary cast restoration, the impression tray must

1. be rigid.
2. have occlusal stops.
3. be coated with an appropriate adhesive.
4. cover the hard palate.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The most toxic form of mercury is

A. organo mercurial compounds.
B. inorganic mercuric compounds.
C. inorganic mercurous compounds.
D. elemental mercury.
A patient has an asymptomatic, adherent, white patch on the oral mucosa. Which of the following is most appropriate to confirm a diagnosis?

A. Biopsy.
B. Culture.
C. Exfoliative cytology.
D. Direct visual fluorescent examination (VELscope®).

Pain upon vertical percussion on the incisal edge of an anterior tooth may indicate the possible presence of:

A. chronic pulpitis.
B. hyperemia.
C. necrosis.
D. periradicular periodontitis.

Extensive caries on the primary maxillary incisors of a 2 year old is generally indicative of:

A. fluorosis of the primary dentition.
B. fever related hypoplasia.
C. amelogenesis imperfecta.
D. demand breast or bottle feeding.

Premature eruption of primary teeth is associated with:

A. congenital gingival fibromatosis.
B. congenital hypothyroidism.
C. osteopetrosis.
D. cleidocranial dysplasia.
E. juvenile hyperthyroidism.

A Class II, Division 1 malocclusion is often associated with a thumbsucking habit. Based on the evidence available, thumbsucking should be:

A. ignored.
B. of concern beyond 5 years of age.
C. considered a manifestation of the nutritional needs of the child.
D. considered a primary cause of this type of malocclusion.

A periodontal dressing is placed following a gingivectomy to:

A. Promote wound healing.
B. prevent microbial colonization of the wound.
C. protect the wound from mechanical injury.
D. achieve hemostasis.

A high neutrophil count is indicative of a/an:

A. allergic reaction.
B. bacterial infection.
C. blood clotting defect.
D. decrease in antibody production.

Compared to the bisecting angle technique, the paralleling technique will result in:

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.
The gypsum material used for fabrication of dies exhibits a higher crushing strength than does regular stone because of

A. difference in particle shape and density.
B. difference in the chemical composition of the powder particles.
C. exothermic heat of setting.

In complete denture fabrication, the angulation of the horizontal condylar guidance plane of the articulator is determined by the

A. cuspal inclination of the teeth selected.
B. orientation of the occlusal plane.
C. incisal guidance.
D. centric relation interocclusal record.
E. protrusive interocclusal record.

In an 8-year old child, the four maxillary incisors are tipped lingually and are in cross-bite. The optimum time for treatment is

A. as soon as possible.
B. after the maxillary canines are in position.
C. after the maxillary premolars erupt.
D. following completion of jaw growth.

The presence of tin in an amalgam alloy modifies the reaction and physical properties of the amalgam in that it

A. speeds the amalgamation rate.
B. enhances strength.
C. enhances tarnish resistance.
D. reduces flow.

The best means of extending the working time of an irreversible hydrocolloid impression material is to

A. extend spatulation time.
B. add additional water.
C. use cold water.
D. add a small amount of borax.
E. add potassium sulfate.

Which radiographic examination provides the most diagnostic information for the replacement of a permanent mandibular first molar with an osseo-integrated implant?

A. Periapical.
B. Occlusal.
C. Panoramic.
D. Cone beam computed tomography.

Radiographically, the lamina dura is a

A. thick layer of bone forming the inner surface of the alveolus.
B. thin radiolucent line around the roots of the teeth.
C. thick layer of cortical bone.
D. thin radiopaque line around the roots of the teeth.

A 50 year old obese patient was diagnosed with type 2 diabetes last year and has recently started taking an oral hypoglycemic. He frequently skips meals in order to reduce his weight. During his 8:30 a.m. appointment, his speech becomes slurred and he is less alert than usual. Which of the following is the most appropriate management of this patient?

A. Make him drink 175ml of diet cola.
B. Give him 15g of glucose as tablets or in a solution.
C. Make him eat a chocolate bar.
D. Dismiss the patient and advise him to eat.
Which of the following diseases predisposes a patient to exaggerated cardiovascular effects of epinephrine?

A. Hyperparathyroidism.
B. Hyperthyroidism.
C. Hypogonadism.
D. Acromegaly.

A. Paget's disease.
B. Fibrous dysplasia.
C. Histiocytosis X.
D. Osteosarcoma.
E. Acute leukemia.

Longer trituration of alloy and mercury will result in an amalgam restoration which will have

A. greater expansion during setting.
B. reduced strength.
C. increased flow.

A. Emotional factors.
B. Pain threshold.
C. Analgesics.
D. Recent trauma.
E. All of the above.

When compared to quaternary ammonium oral rinses, 0.12% chlorhexidine oral rinses have a higher antimicrobial activity due to increased

A. toxicity.
B. potency.
C. concentration.
D. substantivity.

A. dull and prolonged.
B. infrequent, sharp and prolonged.
C. regularly recurrent, dull and persistent.
D. annoying but controlled with salicylates.
E. sharp, stabbing and excruciating.

Cardiovascular collapse caused by a high circulating dose of a local anesthetic is due to

A. vagal stimulation.
B. histamine release.
C. myocardial depression.
D. medullary stimulation.

A 4 year old child has a normal complement of deciduous teeth, but in appearance they are grayish and exhibit extensive occlusal and incisal wear. Radiographic examination indicates some extensive deposits of secondary dentin in these teeth. This condition is typical of

A. cleidocranial dysplasia.
B. amelogenesis imperfecta.
C. neonatal hypoplasia.
D. dentinogenesis imperfecta.
When a patient has a history of porphyromia, which of the following drugs is CONTRAINDIANTED for pharmacosedation?

A. Minor tranquilizers.
B. Antihistamines.
C. Barbiturates.
D. Opioids.

The physiologic rest position of the mandible is

A. a position unrelated to tonicity of mandibular muscles.
B. affected by the time of measurement.
C. the primary means of determining occlusal vertical dimension.
D. used when making a centric interocclusal record.

Tachycardia is a term which describes a pulse rate of

A. less than 50.
B. less than 60.
C. less than 70.
D. more than 70.

The orifice to the fourth canal in a permanent maxillary first molar is most often found

A. under the distobuccal cusp.
B. lingual to the orifice of the mesiobuccal canal.
C. between the distobuccal and the mesiobuccal orifices.
D. between the palatal and the distobuccal orifices.

Adequate position of a needle in the lumen of a blood vessel for a venipuncture is confirmed by the

A. presence of blood upon aspiration.
B. rapidity of filling of the syringe upon aspiration.
C. pain associated with vessel puncture.

A laboratory-fabricated composite resin inlay compared to a direct composite resin restoration has increased

A. colour stability.
B. surface smoothness.
C. control of polymerization shrinkage.
D. bondability to tooth structure.

Which is the LEAST effective method of instrument sterilization?

A. Chemical solutions.
B. Dry heat.
C. Chemical autoclave.
D. Steam autoclave.

Which type of malocclusion should be corrected as early as possible?

A. Class II Division 1 associated with an anterior open bite.
B. Class II Division 2 associated with an increased anterior overbite.
C. Class III associated with an anterior open bite.
D. Cross-bite associated with a functional shift of the mandible from initial contact to maximum intercuspation.
E. Anterior open bite associated with a lip or digit sucking habit.

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The custom tray used in making a final complete denture impression must

A. extend to the bottom of the vestibule.
B. create adequate space for the impression material.
C. have a horizontal handle.
D. be stored in water until ready for use.

A patient who is jaundiced because of liver disease has an increased risk of

1. postextraction bleeding.
2. cardiac arrest.
3. postoperative infection.
4. anaphylactic shock.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The oral mucosa covering the base of the alveolar bone

A. is normally non-keratinized but can become keratinized in response to physiological stimulation.
B. is closely bound to underlying muscle and bone.
C. does not contain elastic fibres.
D. merges with the keratinized gingiva at the mucogingival junction.
E. has a tightly woven dense collagenous corium.

The cause of a cleft lip is failure of the union of the

A. maxillary processes.
B. maxillary and lateral nasal processes.
C. palatine processes.
D. All of the above.
E. None of the above.

In periodontal flap surgery, the initial incision is made to

A. expose the sulcular lining of the pocket.
B. aid in healing.
C. sever the attachment of the oblique fibres of the periodontal ligament.
D. excise the keratinized gingiva.

A facebow is used to record the

1. vertical dimension of occlusion.
2. intercondylar distance.
3. horizontal condylar inclination.
4. relationship of the maxilla to the hinge axis.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only.
E. All of the above.

Acute overdose of acetaminophen is most likely to lead to

A. depression of the respiratory centre.
B. severe gastric bleeding.
C. hepatic toxicity.
D. anaphylactic shock.

A provisional crown must restore the

1. proximal contacts.
2. axial contours of the tooth.
3. occlusal function.
4. esthetics.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.
The gingival margin of the preparation for a full crown on a posterior tooth, with a clinical crown that satisfies the requirements for retention and resistance, should be placed

A. 0.5mm subgingivally.
B. on the enamel.
C. at least 1mm supragingivally.
D. at the cemento-enamel junction.
E. at the gingival margin.

The most appropriate treatment of necrotizing ulcerative periodontitis (NUP) in a patient with no fever and no lymphadenopathy is

1. periodontal debridement.
2. antibiotic therapy.
3. oral hygiene instruction.
4. topical steroid therapy.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following lesions has a tendency to bleed easily?

A. Pyogenic granuloma.
B. Osteoma.
C. Fibroma.
D. Papilloma.
E. Lipoma.

In comparison to visible light, X-rays

A. have a longer wave length.
B. have higher energy.
C. travel faster.
D. can be focused.

A Vitamin B₂ (riboflavin) deficiency usually arises in patients

1. who are elderly.
2. with acute infection.
3. consuming a high protein or fat diet.
4. taking systemic antibiotics.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following is LEAST likely to influence the development of gingivitis?

A. Pregnancy.
B. Diabetes.
C. Traumatic occlusion.
D. Dental plaque.
E. Calculus.

In a restoration following endodontic therapy, the primary function of the post is to improve

A. distribution of forces along the long axis.
B. resistance of the tooth to fracture.
C. sealing of the root canal.
D. retention of the definitive restoration.

A 35 year old patient received chemotherapy followed by adjuvant intensity-modulated radiotherapy of 3000 cGy to the mandible for treatment of Hodgkin’s disease. The extraction of tooth number 3.7 with local anesthesia is planned. The most appropriate management is

A. hyperbaric oxygen treatment prior to tooth extraction.
B. to prescribe antibiotics following tooth extraction.
C. hyperbaric oxygen treatment prior to and following tooth extraction.

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Most of the problems associated with direct posterior composite resin restorations are related to
A. high thermal conductivity.
B. galvanic conduction.
C. polymerization shrinkage.
D. poor shade selection.

Displacement of mandibular fractures is dependent upon
1. direction of fracture line.
2. proprioceptor nerve action.
3. muscle pull.
4. tooth in line of fracture.
5. direction of blow.
A. (1) and (3)
B. (1) (3) (5)
C. (1) (3) (4)
D. (2) (3) (5)
E. All of the above.

A patient with a pre-existing MOD amalgam restoration has just had endodontic therapy completed on tooth 4.6 but cannot afford a laboratory fabricated final restoration. Interim restorative management of 4.6 with the best prognosis is to
A. restore with a MOD amalgam.
B. reduce the occlusal out of occlusion and restore with a MOD amalgam.
C. cusp cap the buccal and lingual cusps and restore with a MOD amalgam.
D. restore with a bonded MOD composite resin.

Which of the following is the most appropriate indication for resective osseous periodontal surgery?
A. Advanced attachment loss.
B. Class III furcation defect.
C. Inadequate clinical crown length.
D. Vertical root fracture.

Mucosal thickening in the maxillary sinus
1. may fill the entire air space of the sinus.
2. is often usually an incidental radiographic finding.
3. may be caused by a periapical infection.
4. may be associated with nasal discharge.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A cast partial denture replacing teeth 3.5 - 3.8 and 4.5 - 4.8 was permanently relined with acrylic resin. At the delivery appointment, when the rests of the framework are fully seated on the abutment teeth, the denture base does not contact the supporting tissues. The most likely cause of the problem is
A. the denture reline resin shrunk during polymerization.
B. excess pressure was placed on the rests during the impression procedure.
C. excess pressure was placed on the denture base area during the impression procedure.
D. the patient’s tissues have remodelled.
A 3 year old requires the extraction of a deciduous maxillary second molar. The local anesthetic technique of choice is

A. a posterior superior alveolar block.
B. buccal and palatal infiltration.
C. a tuberosity block plus subperiosteal infiltration of the mesio-buccal root.
D. an infra-orbital block.

Which of the following is NOT a sign of occlusal trauma?

A. Fremitus.
B. Gingival recession.
C. Widened periodontal ligament.
D. Tooth migration.

Alveolar bone is undergoing remodeling

A. through the primary dentition.
B. until the end of mixed dentition.
C. until the complete eruption of permanent teeth.
D. throughout life.

The lamina dura is

A. cortical bone.
B. spongy bone.
C. immature bone.
D. a cribiform plate perforated by nutrient canals.
E. None of the above.

Multiple congenitally missing teeth may be characteristic of

A. cleidocranial dysplasia.
B. ectodermal dysplasia.
C. Gardner’s syndrome.
D. Gorlin-Goltz’s syndrome.

A 9-year old boy sustains a fracture of the crown of his central incisor with minimal pulp exposure. He is brought to your office within one hour of the injury. A periapical radiograph reveals that the root of the tooth is complete but the apex is open. You would

A. pulp cap with calcium hydroxide and restore.
B. perform a pulpotomy and seal temporarily.
C. perform a pulpectomy and seal temporarily.
D. perform a pulpectomy and fill immediately with gutta-percha and restore.

Pulpotomy is the treatment of choice in pulp exposures of asymptomatic vital teeth with incompletely formed apices. Pulp capping is the recommended procedure for carious exposures on primary teeth.

A. The first statement is true, the second false.
B. The first statement is false, the second true.
C. Both statements are true.
D. Both statements are false.

Following administration of a posterior superior alveolar nerve block, a hematoma occurs. Which of the following statements is correct?

A. The formation of this hematoma indicates poor injection technique.
B. This nerve block is not commonly associated with hematoma formation.
C. Management of this hematoma includes immediate application of heat for at least the first 6 hours.
D. The patient may experience trismus the next day.

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The location and extent of subgingival calculus is most accurately determined clinically by

A. radiopaque solution used in conjunction with radiographs.
B. disclosing solution.
C. probing with a fine instrument.
D. visual inspection.

Post-immunization serological test results for a health care worker who has completed the series of vaccinations against hepatitis B reveals that their anti-HBsAg is less than the value required for immunity. The health care worker should

A. receive one additional vaccination followed by post-immunization testing.
B. repeat the full series of hepatitis B vaccinations followed by post-immunization testing.
C. refrain from performing any exposure-prone procedures for a period of 3-6 months followed by a full series of hepatitis B vaccinations.
D. have liver function tests performed to assess liver damage from a previous hepatitis B infection.

In an infrabony pocket, the epithelial attachment is located

A. within basal bone.
B. coronal to alveolar bone crest.
C. apical to alveolar bone crest.

A syphilitic gumma is most commonly found on the

A. lip.
B. tongue.
C. palate.
D. buccal mucosa.
E. gingiva.

The angle SNA can be used to evaluate the

A. maxillary protrusion.
B. overbite.
C. upper incisor inclination.
D. facial height.
E. mandibular angle.
The most common presenting feature of bilateral maxillary constriction is

A. diastemas.
B. deep overbite.
C. increased overjet.
D. unilateral crossbite.

In the management of a patient with an acute odontogenic infection, the treatment should include:

1. elimination of the cause.
2. drainage.
3. supportive therapy.
4. tetanus immunization.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The prognosis for a reimplanted developed permanent tooth is most influenced by the

A. length of time the tooth has been out of the mouth.
B. use of an antibiotic.
C. effectiveness of the irrigation of the socket.
D. rigidity of the splint applied.
E. thoroughness of the curettage of the root surface.

The most appropriate management technique to avoid aspiration of blood or debris during general anesthesia, is

A. insufflation.
B. open drop.
C. endotracheal intubation.
D. intravenous barbiturate with nitrous oxide and oxygen.

Diagnosis of periodontitis is clinically demonstrated by

A. bleeding from the base of the periodontal pocket.
B. loss of 2mm or more of the periodontal attachment.
C. exudate from the periodontal pocket.
D. All of the above.

In primary or secondary hyperparathyroidism, which of the following will NOT be found?

A. Hyperplasia of the gingiva.
B. Alteration of the trabecular bone pattern.
C. Generalized loss of lamina dura.
D. Giant cell tumours of bone.

What is the most likely diagnosis of an ulcerated gingival lesion whose biopsy report confirms epithelial basal layer separation from the lamina propria?

A. An aphthous ulcer.
B. Erosive lichen planus.
C. Pemphigus.
D. Pemphigoid.

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Destructive occlusal forces can be reduced by

1. selective grinding.
2. orthodontics.
4. tooth extraction.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Maximum shrinkage after gingival curettage can be expected from tissue that is

A. fibroedematous.
B. edematous.
C. fibrotic.
D. formed within an infrabony pocket.
E. associated with exudate formation.

The most likely diagnosis of a proliferative lesion found at a denture periphery is a/an

A. epulis granulomatous.
B. epulis fissuratum.
C. giant cell granuloma.
D. squamous cell carcinoma.

A ghost-like opaque image in a panoramic radiograph caused by a metal earring worn in the lobe of the left ear will be superimposed over the

A. left mandibular ramus.
B. right mandibular ramus.
C. left posterior maxilla.
D. right posterior maxilla.

When a simple tipping force is applied to the crown of a single-rooted tooth, the centre of rotation is located

A. at the apex.
B. at the cervical line.
C. within the apical half of the root.
D. within the cervical one third of the root.

To prevent mesial drift of a permanent first molar, the ideal time to place a distal extension space maintainer is

A. as soon as the tooth erupts through the gingival tissue.
B. after the permanent second molar has erupted.
C. immediately after extraction of the primary second molar.
D. as soon as the extraction site of the primary second molar has completely healed.

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A patient experiences pain and some gingival swelling in the anterior segment of the mandible. The mandibular lateral incisor has a shallow restoration, is tender to percussion and gives a positive response to an electric pulp test. There is some mobility. What is the most likely diagnosis?

A. Periapical abscess.
B. Irreversible pulpitis.
C. Periodontal abscess.
D. Reversible pulpitis.

A patient who is four months pregnant requires an extraction. A radiograph may

A. be taken only for surgical purposes.
B. be taken for diagnostic or treatment purposes.
C. not be taken until end of second trimester.
D. be taken by panoramic radiography only.

All of the following are possible effects of acetylsalicylic acid EXCEPT

A. reduction of fever.
B. shortening of bleeding time.
C. suppression of inflammatory response.
D. bleeding from the gastrointestinal tract.

Which of the following requires antibiotic prophylaxis for a patient with a prosthetic heart valve?

A. Inferior alveolar nerve block.
B. Endodontic instrumentation beyond apex.
C. Restoration of occlusal caries.
D. Making an alginate impression.

Which of the following dental procedures could be performed with minimal risk for a 35 year old patient with a severe bleeding disorder?

A. Mandibular block anesthesia.
B. Supragingival calculus removal.
C. Incisional biopsy.
D. Subgingival restoration.

Resective osseous surgery is best suited for periodontal sites with

A. severe attachment loss.
B. severe intrabony defects.
C. teeth with short roots.
D. early to moderate bone loss.

When an orthodontic force is applied to a maxillary right canine, blood flow to the periodontal ligament is altered within

A. seconds.
B. minutes.
C. hours.
D. days.

The last bone in the craniofacial complex to stop growing is the

A. frontal bone.
B. nasal bone.
C. maxilla.
D. mandible.

Radiographs of Garre's osteomyelitis show

A. formation of sequestra.
B. a worm-eaten pattern of bone destruction.
C. thickening of the cortex.
D. sinus tracts.

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The current recommended regimen of antibiotic prophylaxis for a patient with a prosthetic heart valve and an allergy to penicillin is

A. amoxicillin 3g orally one hour before procedure; then 1.5g six hours after initial dose.
B. amoxicillin 2g orally one hour before procedure only.
C. clindamycin 300mg orally one hour before procedure; then 150mg six hours after initial dose.
D. clindamycin 600mg orally one hour before procedure only.
E. erythromycin stearate, 2g orally two hours before procedure only.

Blue sclera is characteristic of
A. osteopetrosis.
B. osteogenesis imperfecta.
C. osteitis deformans.
D. fibrous dysplasia.

Discomfort during orthodontic treatment may be the result of
1. a low pain threshold.
2. poorly adjusted appliances.
3. heavy forces.
4. prolonged treatment time.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The incidence of tooth loss due to periodontal disease is highest for
A. maxillary molars.
B. maxillary premolars.
C. mandibular incisors.
D. mandibular premolars.
E. mandibular molars.

Marsupialization (PARTSCH PROCEDURE) is the preferred surgical technique in the management of
1. a cyst.
2. a keratocyst.
3. ranula.
4. osteomyelitis.

Which of the following is NOT a sign of congenital heart disease?
A. Cyanosis.
B. Telangiectasia.
C. Clubbing of the fingers and toes.
D. Heart murmur.
E. Right ventricular hypertrophy.

Regarding the Dietary Reference Intake (DRI) for calcium,
A. adult men and women require the same amount.
B. more calcium is required during pregnancy and lactation.
C. women over 70 years require more than men over 70 years.
D. under the age of 18, boys require more calcium than girls.

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The eruption of a maxillary permanent first molar is prevented by interference with the crown of the primary second molar. Which of the following is the most appropriate management?

A. Extract the primary molar.
B. Reduce the distal surface of the primary molar.
C. Unlock the permanent first molar with elastic and (or) separation wire.
D. Remove the soft tissue overlying the occlusal surface of the permanent molar.
E. Wait until more tuberosity growth occurs.

Which of the following conditions is characterized by abnormally large pulp chambers?

A. Amelogenesis imperfecta.
B. Regional odontodysplasia.
C. Dentinogenesis imperfecta.
D. Dentinal dysplasia Type I.

An HIV-positive patient has white lesions on the buccal mucosa. The lesions can be wiped off to reveal an erythematous base. The lesions are most likely caused by

A. Streptococcus viridans.
B. Epstein-Barr virus.
C. Candida albicans.
D. Straphylococcus aureus.

DMF-S is an index for expressing

A. dental needs.
B. tooth mortality.
C. extent of dental neglect.
D. dental caries.

The primary factor for selecting periodontal flap surgery rather than gingivectomy is

A. presence of gingival edema.
B. pocket depth.
C. presence of subgingival calculus.
D. need for access to the bony defect.

The most appropriate procedure when a glove has been punctured during a restorative appointment is to

A. wash the gloved hands using antimicrobial soap and complete the procedure.
B. change the glove as soon as possible.
C. put on an overglove and complete the procedure.
D. complete the procedure as expeditiously as possible.

The most frequent radiographic appearance of metastatic carcinoma in the jaws is a radiolucency

A. ill-defined in the anterior maxilla.
B. ill-defined in the posterior mandible.
C. well-defined in the anterior maxilla.
D. well-defined in the posterior mandible.

Generalized aggressive periodontitis is characterized by attachment loss affecting the first molars and incisors and at least

A. 1 other permanent tooth.
B. 3 other permanent teeth.
C. 5 other permanent teeth.
D. 7 other permanent teeth.

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The line drawn through the occlusal rests of two principal abutments is

A. survey line.  
B. terminal line.  
C. axis of rotation/fulcrum line.  
D. line of greatest torque.

The principal growth sites of the maxilla in a downward and forward direction include the

1. frontomaxillary suture.  
2. zygomaticomaxillary suture.  
3. pterygopalatine suture.  
4. median palate suture.

A. (1) (2) (3)  
B. (1) and (3)  
C. (2) and (4)  
D. (4) only.  
E. All of the above.

The presurgical assessment of a permanent maxillary first molar reveals roots which are trifurcated and widely divergent. The maxillary antrum encroaches into the area of trifurcation. Which of the following should be done during extraction of this tooth?

1. Reflect a flap.  
2. Reduce the palatal bone to the level of the trifurcation.  
3. Reduce the buccal bone to the level of the trifurcation.  
4. Amputate the crown and section the roots.

A. (1) (2) (3)  
B. (1) and (3)  
C. (2) and (4)  
D. (4) only.  
E. All of the above.

A post cemented with zinc phosphate cement is used in an endodontically treated tooth to

A. obturate the canal.  
B. strengthen the root.  
C. reinforce the remaining crown.  
D. retain the restoration.  

A post cemented with zinc phosphate cement is used in an endodontically treated tooth to

A. extract the tooth.  
B. cement the post using zinc-oxyphosphate cement.  
C. cement the post, then raise a flap and seal the defect surgically with amalgam.  
D. re-prepare the canal so the post is now totally within the canal and cement the post.

Hydroquinone is added to the monomer to

A. inhibit polymerization.  
B. initiate polymerization.  
C. activate polymerization.  
D. None of the above.

Hydroquinone is added to the monomer to

A. inhibit polymerization.  
B. initiate polymerization.  
C. activate polymerization.  
D. None of the above.

From Type I to Type IV gold alloys there is

A. an increase in gold content.  
B. no change in the gold content.  
C. a reduction in gold content.  
D. a reduction in platinum content.

What is the correct position of the needle tip for the administration of local anesthetic for an inferior alveolar nerve block?

A. Anterior to the buccinator muscle.  
B. Medial to the medial pterygoid muscle.  
C. Lateral to the ramus of the mandible.  
D. Superior to the mandibular foramen.  
E. Inferior to the pterygomandibular raphe.

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Juvenile periodontitis
A. is associated with gram-negative anaerobic flora.
B. is associated with gram-positive anaerobic flora.
C. is associated with root caries.
D. has a definite predilection toward males.

Spontaneous fracture of the mandible may occur during mastication if the patient
A. has an impacted third molar close to the inferior border of the mandible.
B. is edentulous and there is advanced atrophy of the mandible.
C. is a child with unerupted premolars.
D. is a postmenopausal woman with a full dentition and generalized osteoporosis.

Examination of a 32 year old pregnant woman reveals that she has generalized periodontal probing depths of 4-6mm, most of which bleed on probing. She is otherwise healthy, but asks “If I don’t get the proper periodontal treatment, am I more likely to deliver a pre-term, low-birth weight baby?” Which type of study design would provide the best answer to her question?
A. A prospective cohort involving pregnant women, some of whom have periodontal disease and some of whom do not.
B. A randomized clinical trial of pregnant women with periodontal disease, some of whom receive periodontal therapy and some of whom do not.
C. Comparing the rates of pre-term low birth weight babies, between women with no risk factors to those with periodontal disease.
D. A systematic review comparing the risk of delivering pre-term low birth weight babies among women with various risk factors, including the presence of periodontal disease.

A 12 year old child presents with characteristic tetracycline discoloration of the maxillary and mandibular incisors and permanent first molars. The probable age at which this child received tetracycline therapy was
A. 6 years.
B. 4 years.
C. 1 year.
D. before birth.

The lamina dura is
A. spongy bone.
B. cribiform plate.
C. hypercalcified bone.
D. compact bone.

Chronic gingival inflammation is best eliminated by
A. gingival surgery.
B. regular use of a water-irrigating device.
C. root planing and curettage.
D. occlusal correction.
E. splinting.

Which of the following can interfere with the effectiveness of oral contraceptives?
A. Acetaminophen.
B. Magnesium trisilicate.
C. Codeine.
D. Clindamycin.

The most common complication of a venipuncture is
A. syncope.
B. hematoma.
C. thrombophlebitis.
D. embolus.

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Acute anaphylactic reactions to penicillin are LEAST likely to occur

A. in patients with a negative skin test to penicillin.
B. within minutes after drug administration.
C. in patients who have already experienced an allergic reaction to the drug.
D. when the drug is administered parenterally.

Which of the following is associated with drug-induced bruxism?

A. Amitriptyline.
B. Clonazepam.
C. Fluoxetine.
D. Phenelzine.

Mean x-ray beam energy is a function of

A. exposure time (s).
B. tube current (a).
C. tube voltage (v).
D. collimation.

Regarding dental caries, which of the following is correct?

A. All carbohydrates are equally cariogenic.
B. More frequent consumption of carbohydrates increases the risk.
C. The rate of carbohydrate clearance from the oral cavity is not significant.
D. Increased dietary fat increases the risk.

A large, deeply furrowed tongue is commonly found in patients with

A. Pierre Robin Syndrome.
B. geographic tongue.
C. ectodermal dysplasia.
D. Down Syndrome.

The term used to describe epithelial changes including nuclear hyperchromatism, loss of increased nuclear to cytoplasmic ratio and abnormal mitoses is

A. acanthosis.
B. hyperkeratosis.
C. dysplasia.
D. parakeratosis.
E. hyperparakeratosis.

In a general dental practice setting, patients who are actively infectious with Mycobacterium tuberculosis CANNOT be safely treated

A. unless there is adherence to standard precautions.
B. even if standard precautions are used.
C. unless a preoperative antimicrobial rinse is used in addition to standard precautions.
D. unless preoperative prophylactic antibiotic coverage and standard precautions are used.

Which of the following drugs can be administered to manage pain following the acute onset of a migraine?

A. Amitriptyline.
B. Nifedipine.
C. Propranolol.
D. Sumatriptan.

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For a mandibular denture impression, the muscle determining the form of the lingual flange in the molar region is

A. mylohyoid.
B. geniohyoid.
C. medial pterygoid.
D. lateral pterygoid.
E. genioglossus.

The most common senile dementia in the elderly is

A. vascular dementia.
B. Alzheimer’s disease.
C. a result of cerebral arteriosclerosis.
D. multi-infarct dementia.

Whenever possible, the margins of a restoration should be placed

1. subgingivally.
2. supragingivally.
3. on cementum.
4. on enamel.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A 7 year old patient presents with a fracture of the crown of a permanent maxillary central incisor that occurred 2 hours ago. The incisal half of the crown is missing, resulting in a 3mm exposure of vital pulp. What is the most appropriate initial management for this tooth?

A. Apexification.
B. Apexogenesis.
C. Pulp capping.
D. Pulpectomy.
Vitamin D is activated in the
A. skin upon ultraviolet radiation from the sun.
B. liver upon hydroxylation.
C. kidney upon hydroxylation.
D. intestinal mucosa upon absorption.

In a 5-year old, a small mechanical exposure in a vital primary molar would be treated by
A. extraction of the tooth.
B. a pulp capping with calcium hydroxide.
C. a routine amalgam restoration without any specific treatment for the exposed pulp.
D. the use of a cavity liner.

In an adult, progressive increase in mandibular length and interdental spacing is a feature of
A. hyperparathyroidism.
B. hyperpituitarism.
C. hyperthyroidism.
D. Addison's disease.
E. Cushing's disease.

If a tooth has an inadequate ferrule, which of the following is/are effective strategies to increase tooth structure available for crown preparation?
1. Surgical crown lengthening.
2. Sub-gingival preparation and prolonged temporization.
3. Orthodontic eruption.
4. Elective endodontic treatment gaining retention from a post in the root.
A. (1) and (3)
B. (2) and (4)
C. (1) (2) (3)
D. (4) only
E. All of the above.

The most appropriate analgesic for a pregnant patient is
A. acetaminophen.
B. acetylsalicylic acid.
C. hydrocodone and acetaminophen.
D. ibuprofen.

In an edentulous patient, the coronoid process may
A. limit the distal extension of the mandibular denture.
B. affect the position and arrangement of the posterior teeth.
C. determine the location of the posterior palatal seal.
D. limit the distal extensions of the maxillary denture.

Excessively dark radiographs will result from
1. underdevelopment.
2. overexposure.
3. backward placement of the film.
4. excessive milliamperage.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A patient with bulimia who purges several times a day should be advised to increase intake of
A. lean chicken.
B. bananas.
C. whole wheat bread.

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The gingival tissues remain healthier when margins of crowns are placed
A. about 1mm below the gingival crest.
B. about 5mm below the gingival crest.
C. above the gingival crest.
D. at the gingival crest.

Hypoglycemia in the conscious patient is best managed with
A. oxygen.
B. epinephrine.
C. carbohydrates.
D. glucagon.
E. insulin.

Caries lesions are most likely to develop if a patient has
A. a high lactobacillus count.
B. saliva with low buffering capacity.
C. plaque on his teeth.
D. lactic acid in his mouth.

Which of the following can increase the chances of successful osseointegration of a dental implant?
1. An atraumatic surgical approach.
2. The availability of dense cancellous bone.
3. A good initial stability of the implant.
4. Immediate loading of the implant.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A 45 year old, overweight man reports that his wife complains that he snores. The initial management of the patient’s snoring problem is to
A. fabricate an appliance to reduce snoring.
B. fabricate restorations to increase the patient’s vertical dimension of occlusion.
C. refer for an orthognathic surgery consultation.
D. refer for a sleep assessment.

An ankylosed tooth is usually
A. nonvital.
B. associated with a root fracture.
C. infraerupted.
D. found in the permanent dentition.

A 3 year old, 16kg child is given 2 cartridges of 4% prilocaine with 1:200,000 epinephrine for extraction of primary teeth. After a few minutes the child becomes lethargic, disoriented and eventually begins to convulse. The most probable cause of this reaction is
A. epinephrine.
B. allergic reaction to the local anesthetic.
C. overdose of local anesthetic.
D. epilepsy precipitated by epinephrine.

Which of the following is NOT associated with osteogenesis imperfecta?
A. Brown teeth.
B. Brittle bones.
C. Thin enamel.
D. Blue sclerae.
E. Enamel loss.

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During periodontal disease activity, the loss of clinical attachment

A. precedes alveolar bone loss.
B. follows alveolar bone loss.
C. is concomitant with alveolar bone loss.

The best choice of cement for luting a ceramic veneer is

A. zinc phosphate.
B. glass ionomer.
C. light-cured resin.
D. self-cured resin.

Which of the following procedures will increase the retention of a Class III composite resin restoration in primary incisor and canine teeth?

A. Keeping the preparation as small as possible.
B. Using labial or lingual dovetails.
C. Etching the preparation for an additional 30 seconds.

The most important principle dictating location and size of access to the root canal system is

A. preservation of tooth structure.
B. removal of all caries.
C. straight line access to the canal.
D. removal of all pulp horns.

An adult female patient presents to the dental office with fractured teeth, a lacerated lip and a black eye. She is with her 6 year old son, who is crying and upset. The dentist’s receptionist discretely reports that the child was asking his mother “Why was Daddy hurting you?” Upon questioning, the patient confides that her husband was the source of her injuries and indicates that she would not be pursuing any action. She is referred to a specialist due to the complexity of her dental injuries, but she requests that the source of her injuries not be disclosed. What is the dentist’s obligation?

A. Respect the patient’s request regarding confidentiality.
B. Report her injuries to an adult protection agency.
C. Forward all information, including the source of the injuries, to the specialist.
D. Report the situation to a relevant child protection agency.

Shortly after the administration of a local anesthetic for the removal of tooth 2.8, the patient complains of a tense sensation in the left cheek and left cheek swelling is observed. The most likely diagnosis is

A. surgical emphysema.
B. immediate allergic reaction.
C. herniation of buccal fat pad.
D. hematoma.

At the wax rim stage of jaw relation records for complete dentures, phonetic tests can be used to determine

A. flange extension.
B. protrusion.
C. esthetics.
D. centric relation.
E. vertical dimension of occlusion.

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In cephalometry, the most stable point in a growing skull is the
A. sella turcica.
B. nasion.
C. Broadbent’s point.
D. Bolton point.

Direct pulp capping of permanent teeth in children under the age of 12 years is most likely to be successful for
A. teeth that are symptomatic.
B. necrotic pulps.
C. teeth with open apices.
D. pulp exposures 3-5mm in size.

During the fabrication of new complete dentures, which of the following can be modified to achieve the desired occlusion?
1. The compensating curve.
2. The orientation of the occlusal plane.
3. The cusp inclination.
4. The condylar inclination.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following is the most frequent major congenital malformation of the head and neck?
A. Cystic hygroma colli.
B. Cleft palate.
C. Encephalotrigeminal angiomatosis.
D. Double lip.
E. Commissural pits.

Bone tissue grows by
A. interstitial growth.
B. osteoclastic activity.
C. proliferation of endodermal tissue.
D. differentiation of cartilaginous tissue.

Prolonged heavy orthodontic forces may result in
1. hyalinization of periodontal ligament.
2. devitalization of the teeth.
3. pain.
4. inefficient tooth movement.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Gingivitis is associated with
1. bone loss.
2. cyanosis of gingival tissue.
3. the presence of minimal attached gingiva.
4. bleeding on probing.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

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The percentage of documented child abuse cases estimated to involve orofacial injuries is

A. 10-20.
B. 30-40.
C. 50-60.

Hyperkeratosis, acanthosis, dysplasia, increased mitosis, intact basal cell layer and chronic inflammatory cells are histologic features that may be found in

A. squamous cell carcinoma.
B. carcinoma in situ.
C. papillofibroma.
D. endothelioma.

The prognosis of guided tissue regeneration (GTR) is best for the treatment of

A. horizontal bone loss.
B. one wall osseous defects.
C. two wall osseous defects.
D. three wall osseous defects.

Nicotinic stomatitis is

A. associated with squamous cell carcinoma of the palate.
B. caused by smokeless tobacco.
C. characterized by small red dots on an elevated pale mucosa.
D. characterized by dysplastic changes.
E. irreversible.

Dental porcelain has

1. low compressive strength.
2. high hardness.
3. high tensile strength.
4. low impact strength.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A fixed bridge pontic should

1. restore tooth function.
2. reduce thermal conductivity.
3. be biologically acceptable.
4. reduce galvanic reactions between abutments and other restorations.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Angle used the term "subdivision" to refer to a malocclusion in which the abnormal molar relationship was

A. bilateral.
B. unilateral.
C. only mildly abnormal.
D. severely abnormal.
E. coupled with labioversion of the maxillary incisors.

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Oral foci of infection are of greatest clinical significance in the presence of
A. polycythemia vera.
B. iritis and uveitis.
C. eczema and urticaria.
D. rheumatoid arthritis.
E. subacute bacterial endocarditis.

Which of the following drugs may cause generalized enlargement of interdental papillae?
A. Digitalis.
B. Nifedipine.
C. Captopril.
D. Propranolol.

A 4mm diameter carious pulp exposure occurs on a permanent first molar of a 7 year old child. The tooth is vital and has no periapical involvement. The appropriate initial treatment would be to perform a/an
A. pulp capping.
B. pulpotomy.
C. pulpectomy.
D. extraction.

A patient dislocates his mandible for the first time. After reduction, you should
A. inject the joint with hydrocortisone.
B. inject the joint with a sclerosing solution.
C. have the patient exercise the mandible to avoid trismus.
D. immobilize for ten days.

Which of the following is the most predictable indicator of periodontal stability?
A. Patient compliance.
B. Gingival inflammation.
C. Plaque index.
D. Absence of bleeding on probing.

A direct or indirect pulp cap has the greatest chance of clinical success when there is a
A. history of spontaneous pain.
B. prolonged response to cold stimulus.
C. apical lesion.
D. vital pulp.

In the treatment of an acute anaphylactic reaction, the first drug that should be administered is
A. hydroxyzine.
B. epinephrine.
C. hydrocortisone.
D. diphenhydramine.
A patient in the late mixed dentition stage has an end-to-end first molar relationship with normal skeletal and incisor relationships. What is the most probable occlusal relationship at age 20?

A. Angle Class II without anterior overlap.
B. Angle Class II with anterior overlap.
C. Angle Class I without anterior overlap.
D. Angle Class I with anterior overlap.

Which of the following is the most likely diagnosis of an asymptomatic, yellow primary central incisor in a 4 year old patient?

A. Pulpal necrosis.
B. Pulpal calcification.
C. Internal resorption.
D. External resorption.

Which of the following materials are LEAST suitable for impressions for cast gold restorations?

A. Polysulfides.
B. Polyvinyl siloxanes.
C. Polyethers.
D. Irreversible hydrocolloids.

Inefficient progress in permanent molar uprighting is most likely due to

A. chronic periodontitis.
B. heavy force application.
C. lack of anchorage.
D. occlusal interference.

An inflammatory cellular infiltrate found in the connective tissue of healthy gingiva is

A. a routine microscopic finding.
B. an indication of systemic disease.
C. composed chiefly of macrophages.
D. a tissue response to food decomposition.

The most logical explanation for causing swelling beneath the eye caused by an abscessed maxillary canine is that the

A. lymphatics drain superiorly in this region.
B. bone is less porous superior to the root apex.
C. infection has passed into the angular vein which has no valves.
D. the root apex lies superior to the attachment of the caninus and levator labii superioris muscles.

In an 80-year old patient you would expect

A. a reduced size of the pulp chamber.
B. increased incidence of pulp stones.
C. increased tendency to pulpal fibrosis.
D. All of the above.

A mandibular central incisor is to be extracted and added to a partial denture. The impression to add a tooth to the denture should be made

A. before the extraction with the denture in the mouth, removing the denture from the impression then pouring the impression.
B. after the extraction without the denture in the mouth.
C. after the extraction with the denture in the mouth and pouring the impression leaving the denture in the impression.
D. after the extraction with the denture in the mouth, removing the denture from the impression then pouring the impression.

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Which viral hepatitis does NOT have a chronic carrier state?

A. Hepatitis A.
B. Hepatitis B.
C. Hepatitis C.
D. Hepatitis D.

The depth of penetration of X-rays depends on the

1. milliamperage.
2. density of the subject.
3. exposure time.
4. kilovoltage.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Immediately following a left posterior superior alveolar nerve block injection, the patient’s face becomes quickly and visibly swollen on the left side. The immediate treatment should be to

1. apply a cold compress.
2. administer 0.3mg epinephrine (sublingually).
3. apply pressure.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The features of aggressive (rapidly progressive) periodontitis are

1. rapid attachment loss.
2. suspected periodontal microbial pathogens.
3. onset before the age of 35.
4. ulcerations of the gingiva.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The antibiotic of choice to treat an infection of endodontic origin in a patient who is allergic to penicillin and is intolerant of erythromycin is

A. amoxicillin.
B. azithromycin.
C. clindamycin.
D. tetracycline.

The setting of a zinc-phosphate cement can best be retarded by

A. decreasing the particle size.
B. increasing the concentration of water in the liquid.
C. increasing the rate of addition of the powder to the liquid.
D. cooling the glass mixing slab.

For a patient with cardiovascular disease, local anesthesia

A. affects blood pressure more than general anesthesia.
B. affects blood pressure less than general anesthesia.
C. is responsible for bacteremia.
Which of the following, if left untreated, is most likely to result in a periapical lesion?

A. Internal resorption.
B. Reversible pulpitis.
C. Acute suppurative pulpitis.
D. Chronic hyperplastic pulpitis.
E. Diffuse calcification of the pulp.

Which of the following conditions is most likely to lead to thrombosis?

A. Stasis of blood.
B. Presence of bacteria in blood.
C. Deficiency of circulating platelets.
D. Increased concentration of plasma.
E. Lowered oxygenation of hemoglobin.

Which of the following is a CONTRAINDICATION to the use of Tylenol 3®?

A. Concurrent use of penicillin V.
B. Asthmatic reaction to acetylsalicylic acid.
C. An allergy to acetaminophen.
D. A gastric ulcer.

To achieve optimum strength and esthetics, a porcelain fused to metal restoration with a porcelain butt joint margin requires a
1. 0.8 - 1.2mm shoulder.
2. sharp, well defined axiogingival line angle.
3. 90°- 100° cavosurface margin.
4. finish line that is 2mm subgingival.

Which of the following microorganisms are most frequently found in infected root canals?

A. Streptococcus viridans.
B. Staphylococcus aureus.
C. Lactobacilli.
D. Enterococci.
E. Staphylococcus albus.

Which of the following is/are essential when using a spherical rather than an admix alloy for a routine amalgam restoration?

1. A larger diameter condenser tip.
2. An anatomical wedge.
3. A thinner matrix band.
4. A serrated condenser tip.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Enlargement of the thyroid gland can be caused by

A. insufficient fluoride.
B. excess iodine.
C. insufficient iodine.
D. excess calcium.
E. excess sodium.

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Which of the following is/are contraindication(s) for a single tooth extraction in your office?

1. The patient is severely hyperthyroid and not under treatment.
2. The patient is a well-controlled diabetic.
3. The tooth is hypermobile in an area of cavernous hemangioma.
4. The tooth has internal root resorption.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A periodontal screening and recording (PSR) score of 3 for a sextant indicates that probing depth does NOT exceed

A. 3.0mm.
B. 3.5mm.
C. 4.0mm.
D. 5.5mm.
E. 6.0mm.

The psychomotor recovery time from nitrous oxide sedation is

A. immediate.
B. 1 to 2 minutes.
C. 10 minutes.
D. 30 minutes.

Oral lesions that do NOT cross the midline are most likely

A. herpes zoster.
B. varicella.
C. an allergic response.
D. recurrent herpes.

A. developmental.
B. residual.
C. idiopathic.
D. odontogenic.

The principal ingredient of a zinc oxyphosphate cement powder is

A. zinc phosphate.
B. silica.
C. magnesium oxide.
D. zinc-oxide.
E. calcium hydroxide.

The most frequent cause of tooth loss in the elderly is

A. bruxism.
B. caries.
C. periodontal disease.
D. use of a removable partial denture.
E. extraoral trauma.

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The ANB angle in severe Class II malocclusions is most often

A. large.
B. small.
C. within normal limits.

A fracture in an all-ceramic crown may be caused by

1. inadequate ceramic thickness.
2. sharp line angles in the tooth preparation.
3. excessive occlusal load.
4. use of an inappropriate luting material.

Compared to heat-cured acrylic resins, cold-cure acrylic resins are

A. stronger and more colour stable.
B. weaker and more colour stable.
C. weaker and less colour stable.
D. stronger and less colour stable.

Reciprocation as applied to cast removable partial dentures refers to the

A. function of the occlusal rest to counteract occlusal forces.
B. resistance to flexion of the clasp arm.
C. return to a passive state of the flexed clasp.
D. function of the clasp arm to counteract the retentive clasp arm.

In the Vita® Classical Shade Guide, the hue of the D shade series is

A. red.
B. grey.
C. yellow.
D. brown.

Which of the following should NOT be prescribed to a pregnant patient?

A. Erythromycin.
B. Cloxacillin.
C. Tetracycline.
D. Cephalosporins.

Antibiotic coverage should be provided when performing periodontal surgery for patients with

A. myocardial infarction.
B. dental implants.
C. prosthetic heart valve.
D. coronary artery disease.

Which of the following statements is true regarding local anesthetic syringes and needles for dental anesthesia?

A. Bending a needle is an acceptable practice for injections when the needle is inserted more than 5mm into soft tissue.
B. To avoid percutaneous injury, needles may be left uncapped away from the working area after use.
C. A new anesthetic needle should be used when the elapsed time between multiple injections is more than 30 minutes.
D. Needles should be recapped after use, using a scoop method or mechanical device.

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The permanent maxillary canine erupts
A. before the mandibular permanent canine.
B. before the maxillary first premolar.
C. before the maxillary second permanent molar.
D. after the maxillary second permanent molar.

Which one of the following teeth is most frequently impacted?
A. Maxillary cuspid.
B. Mandibular second molar.
C. Mandibular cuspid.
D. Maxillary first premolar.

The cell-mediated immune response to bacterial plaque in chronic periodontitis is regulated by
A. neutrophils.
B. T cells.
C. B cells.
D. plasma cells.

The most appropriate management for a tooth with a history of previous trauma that now exhibits apical resorption is
A. observation over 6 months for further resorption.
B. complete instrumentation and medication with intracanal calcium hydroxide.
C. immediate instrumentation and obturation followed by apical curettage.
D. extraction, apical resection, retrofilling and replantation.
E. extraction and replacement with a fixed or removable prosthesis.

Which of the following materials is most likely to initiate a hypersensitivity reaction?
A. Titanium.
B. Gold.
C. Nickel-chromium.
D. Chrome-cobalt.
E. Silver amalgam.

Which of the following statements is true regarding endodontically treated teeth?
A. These teeth are more brittle than teeth with vital pulps due to desiccation.
B. Fracture of these teeth are usually due to loss of coronal tooth structure.
C. These teeth require full coverage to prevent fracture.
D. A post provides strength for these teeth.

A 2cm, discrete, white lesion of the buccal mucosa has not resolved after elimination of all local irritants. The most appropriate management would be to
A. cauterize it.
B. apply toluidine blue staining.
C. perform an incisional biopsy.
D. re-examine at 6 month intervals.
E. refer patient to family physician.

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Although a dentist recommends an all-ceramic crown to a patient who requires restoration of a fractured maxillary lateral incisor, the patient requests a full gold crown be placed. The most appropriate management is to

A. insist on placing a more esthetic crown.
B. place a provisional crown on the tooth indefinitely.
C. place a full gold crown as the patient requested.
D. restore the tooth with composite until the patient reconsidered.

A daily dose of 81 mg of acetylsalicylic acid is used for its

A. analgesic properties.
B. antipyretic effect.
C. antiplatelet action.
D. anti-inflammatory function.

Which of the following is NOT used to inhibit calcification of plaque?

A. Fluoride.
B. Magnesium.
C. Pyrophosphate.
D. Zinc.

Primary herpetic gingivostomatitis most frequently occurs

A. before age 10.
B. between 10 and 20 years of age.
C. between 20 and 30 years of age.
D. after age 30.

An ameloblastoma can develop from the epithelial lining of which of the following cysts?

A. Periradicular.
B. Dentigerous.
C. Residual.
D. Lateral periodontal.

Pulp vitality tests are used to differentiate between

A. periapical osseous dysplasia (periapical cemento-osseous dysplasia) and a periapical granuloma.
B. periapical osseous dysplasia (periapical cemento-osseous dysplasia) and an incisive canal cyst.
C. periapical granuloma and a periapical cyst.
D. periapical granuloma and a periapical abscess.

In fixed partial denture (FPD) fabrication, significant premature occlusal contacts on teeth other than the abutment teeth should

A. be eliminated before the FPD is made.
B. be eliminated while the FPD is being made.
C. be eliminated after the FPD has been made.
D. not be eliminated.

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In a 4 year old child, the primary central incisor has discoloured following a traumatic injury. The treatment of choice is

A. pulpotomy.
B. pulpectomy.
C. observation.
D. extraction.

Which of the following modifications is recommended when making radiographs on an 8 year old child compared to an adult?

A. Increase the kVp.
B. Reduce the exposure time.
C. Increase the mA.
D. Use a lower speed receptor.

In a standard dental cartridge (carpule) containing 1.8ml 2% lidocaine with epinephrine 1/100,000, the amount of vasoconstrictor is

A. 18.0 mg.
B. 0.018 mg.
C. 1.8 mg.
D. 0.18 mg.
E. 180.0 mg.

In necrotizing ulcerative gingivitis the deepest penetrating microorganisms are

A. cocci.
B. spirochetes.
C. diplococci.
D. filamentous rods.

The use of benzodiazepine in the elderly to manage anxiety

A. should be done with caution as it is metabolized more slowly.
B. is a safe and reliable practice.
C. increases the incidence of insomnia.
D. requires higher doses for clinical effects.

An abnormal decrease in the flow of saliva is

A. ptyalism.
B. sialometaplasia.
C. xerostomia.
D. pyroglossia.

The most important factor contributing to the long term success of the restoration of an endodontically treated tooth is the

A. type of post utilized.
B. remaining coronal tooth structure.
C. presence of extracoronal coverage.
D. type of core material used.

A healthy 66 year old patient who had a myocardial infarct eight years previously requires an extraction. Treatment should include

A. admitting the patient to hospital for extraction with local anesthesia.
B. admitting the patient to hospital for extraction with general anesthesia.
C. extracting the tooth in the office using preoperative sedation and local anesthesia without a vasoconstrictor.
D. extracting the tooth in the office using local anesthesia with a vasoconstrictor.
Which condition is associated with elevated serum alkaline phosphatase and elevated urinary hydroxyproline levels?

A. fibrous dysplasia.
B. Paget’s disease.
C. Sjögren’s syndrome.
D. Gardner’s syndrome.

In the treatment of necrotizing ulcerative gingivitis (NUG) with associated lymphadenopathy, which of the following medications is the treatment of choice?

A. An anti-inflammatory.
B. A topical antibiotic.
C. A systemic antibiotic.
D. An analgesic.

A loss of sensation in the lower lip may be produced by

A. Bell’s palsy.
B. trigeminal neuralgia.
C. malignancy in the body of the mandible.
D. fracture in the mandibular canine region.

Which periodontal pathogen can use the hormone estrogen as a growth factor?

A. Porphyromonas gingivalis.
B. Aggregatibacter (Actinobacillus) actinomycetemcomitans.
C. Prevotella intermedia.
D. Tannerella forsythia.

A radiolucent area in a radiograph occurs as a result of

1. decreased density of tissue.
2. increased density of tissue.
3. more radiation affecting the silver halide crystals.
4. increased exposure time.

A. (4) only
B. (2) and (3)
C. (1) and (3)
D. (1) only
E. None of the above.

Which impacted mandibular third molar is easiest to remove?

A. Mesio-angular.
B. Horizontal.
C. Disto-angular.
D. Inverted.

The postnatal increase in width of the maxilla results from

A. sutural growth.
B. mandibular growth.
C. appositional growth.
D. both appositional and sutural growth.

"Dens in dente" is most commonly associated with

A. supernumerary teeth.
B. dentinogenesis imperfecta.
C. osteogenesis imperfecta.
D. anterior teeth.
E. amelogenesis imperfecta.
A daily chlorhexidine rinse following periodontal surgery is primarily used to

A. enhance regeneration.
B. encourage wound healing.
C. facilitate plaque control.
D. create new attachment.

Which of the following structures may be associated with the role of the central nervous system in sleep (nocturnal) bruxism?

A. Basal ganglia (nigrostriatal).
B. A delta and C nerves.
C. Sphenopalatine ganglion.
D. Petrous nerves.

Lidocaine

1. is a local anesthetic agent.
2. has topical anesthetic properties.
3. is an antiarrhythmic agent.
4. has anticonvulsant properties.

A. (1) (2) (3)
B. (1) and (2)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following would maximize vitamin E intake following osseous surgery?

A. Lettuce.
B. Wheat germ.
C. Eggs.
D. Fish.

Which of the following properties apply to glass ionomer cements?

1. Chemical bonding to etched dentin.
2. Non-irritating to pulpal tissue at moderate depth.
3. Anticariogenic because of fluoride release.

A. (1) only
B. (1) and (2)
C. (1) and (3)
D. All of the above.

The selective grinding rule for removing premature contacts on the working side of complete dentures is to grind

A. only the fossae of teeth.
B. the buccal cusps of maxillary and lingual cusps of mandibular teeth.
C. only the mandibular teeth.
D. lingual and buccal cusps of maxillary teeth.
E. the maxillary and mandibular cuspids.

The periodontium is best able to tolerate forces directed to a tooth

A. horizontally.
B. laterally.
C. obliquely.
D. vertically.

To determine the location of an impacted maxillary cusp, the radiographic view(s) required is/are

A. occlusal.
B. periapical.
C. periapical and occlusal.
D. panoramic.

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Which of the following is NOT typically associated with failed endodontic treatment?

A. Enterococcus faecalis.
B. Actinomyces israelii.
C. Streptococcus mutans.
D. Candida albicans.
E. Prevotella intermedia.

Which one of the following is the initial treatment for internal resorption?

A. Pulpectomy.
B. Pulpotomy.
C. Pulp capping.
D. Apicoectomy.

“Ground glass” is the classical description of the radiographic appearance found in

A. acute osteomyelitis.
B. fibrous dysplasia.
C. early periapical cemento-osseous dysplasia.
D. Paget’s disease of bone.

Predominant organisms in necrotizing ulcerative gingivitis are

A. spirochetes and fusiforms.
B. Porphyromonas gingivalis.
C. Prevotella intermedia.
D. Actinomyces viscosus.

In mucous membrane pemphigoid, a positive Nikolsky sign is the result of a/an

A. separation at the basement membrane.
B. intraepithelial separation.
C. separation of the lamina propria and submucosal.
D. intraepithelial bulla formation.

The Periodontal Screening and Recording System (PSR®) is designed to

A. document the progression of periodontitis.
B. assess the periodontal status of a patient.
C. measure loss of attachment for large patient populations.
D. evaluate oral hygiene.

The speed of propagation of action potentials along axons is

A. faster for myelinated fibres than for unmyelinated fibres.
B. slower for myelinated fibres than for unmyelinated fibres.
C. independent of myelination.
D. independent of the axon diameter.

The washing of hands must be performed before putting on and after removing gloves because it

1. reduces the number of skin bacteria which multiply and cause irritation.
2. completely eliminates skin bacteria.
3. minimizes the transient bacteria which could contaminate hands through small pinholes.
4. allows gloves to slide on easier when the hands are moist.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

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Which of the following drugs has/have antisialagogue properties?

1. Acetaminophen.
2. Atropine.
3. Acetylsalicylic acid.
4. Scopolamine.

A. (1) (2) (3)  
B. (1) and (3)  
C. (2) and (4)  
D. (4) only  
E. All of the above.

The best method to diagnose a cystic tumour is to

A. examine the fluid under a microscope.  
B. submit the tissue for histological analysis.  
C. perform a cytologic smear.  
D. culture the fluid.  
E. order blood tests.

A 2cm, discrete, white lesion of the buccal mucosa has not resolved after elimination of all local irritants. The most appropriate management would be to

A. cauterize it.  
B. apply toluidine blue staining.  
C. perform an incisional biopsy.  
D. re-examine at 6 month intervals.  
E. refer patient to family physician.

In patients with cleft palates there may be

A. an increase in supernumerary teeth.  
B. an increase in congenitally missing teeth.  
C. a higher incidence of crown defects.  
D. All of the above.

A sign of gingivitis is

A. bone loss.  
B. progressive attachment loss.  
C. the presence of minimal attached gingiva.  
D. bleeding on probing.

The characteristic colour seen in the crowns of teeth with internal resorption is due to

A. deposition of pigment in the cells of the odontoblast layer.  
B. the presence of hyperplastic vascular pulp tissue.  
C. a change in the consistency of the dentin.  
D. an optical phenomenon related to the difference in the refractive indices of the normal and affected areas.  
E. the degeneration and necrosis of the pulp tissue.

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The most common site and patient age for a solid (conventional) ameloblastoma are the posterior

A. mandible; 20 years.
B. mandible; 40 years.
C. maxilla; 20 years.
D. maxilla; 40 years.

Which of the following is the most important preventive therapy for an 8 year old living in a non-fluoridated community, with closed contacts in the posterior quadrants and disto-occlusal restorations on all primary first molars?

A. Daily fluoride tablets.
B. Fluoride varnish at 2 month intervals.
C. Daily 0.05% NaF rinses.
D. Twice daily brushing with fluoride toothpaste.

What could cause an area on an analog radiograph to be darker?

1. Increased processing time.
2. Reduced attenuation of the X-ray beam in the patient.
3. Increased exposure time.
4. Reduced deposition of metallic silver on the emulsion.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

What is the dose of epinephrine in an EpiPen®?

A. 0.20.
B. 0.25.
C. 0.30.
D. 0.35.
E. 0.40.

The basic design principles for a mucoperiosteal flap are it

1. is broad based.
2. allows adequate access.
3. is able to be repositioned over bone.
4. has an adequate blood supply.

A. (1) (2) (3)
B. (2) and (4)
C. (3) and (4)
D. All of the above.

The use of conscious sedation for a restorative procedure in an office environment

A. requires the services of an anesthesiologist.
B. is contraindicated in children.
C. precludes the use of local anesthesia.
D. requires effective local anesthesia.
E. may be used in conjunction with narcotics.

A. requires the services of an anesthesiologist.
B. is contraindicated in children.
C. precludes the use of local anesthesia.
D. requires effective local anesthesia.
E. may be used in conjunction with narcotics.
Which of the following affect(s) polymerization of visible light cured composite resins?

1. Intensity of the light source.
2. Thickness of composite resin.
3. Proximity of light source.
4. Shade of composite resin.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Thinned cortical bone, decreased cancellous trabeculation, enlargement of the medullary cavity and decreased bone density are radiographic features of

A. osteomalacia.
B. osteopetrosis.
C. osteoradionecrosis.
D. osteoporosis.

Relapse of rotations of teeth corrected by fixed orthodontic treatment is best minimized by

A. removal of third molars and occlusal equilibration.
B. wearing retainers indefinitely with circumferential supra-crestal fiberotomy of rotated teeth.
C. overcorrection during active treatment.
D. circumferential supra-crestal fiberotomy of all teeth.

A 70 year old insulin-dependent patient has just completed a 7 day course of ampicillin for a respiratory infection. He presents with signs and symptoms consistent with a diagnosis of oral candidiasis. Which of the following drugs is/are appropriate to manage this condition?

1. Fluconazole.
2. Nystatin.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A 10 year old patient complains of discomfort in a maxillary primary second molar when eating. The tooth is mobile with a large mesio-occlusal amalgam restoration. The most likely diagnosis is

A. an exfoliating tooth.
B. a hyperemic pulp.
C. a hyperplastic pulp.
D. an acute pulpitis.
E. traumatic occlusion.

Epidemiology of disease is best described as the

A. data obtained from sickness surveys.
B. usual low level of disease normally found within a population.
C. control of disease.
D. study of disease patterns in a population.

The most likely indication of a poor periodontal prognosis for a furcation involved tooth is the presence of

A. wide root separation.
B. narrow root separation.
C. a bifurcation ridge.
D. a cemento-enamel projection.

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The removal of a partially impacted mandibular third molar is appropriate for the prevention of
A. anterior crowding.
B. root caries of the adjacent tooth.
C. jaw fracture from contact sports.

Which of the following will increase resistance to dislodging forces on a removable partial denture?
A. Locating direct and indirect retainers as close as possible to the distal extension base(s).
B. Locating direct and indirect retainers as far as possible from the distal extension base(s).
C. Locating direct retainers as close as possible to the distal extension base(s) and the indirect retainers as far as possible from the distal extension base(s).
D. Locating direct retainers as far as possible from the distal extension base(s) and the indirect retainers as close as possible to the distal extension base(s).

On a semi-adjustable articulator, the incisal guide table represents
A. a reference point for the establishment of occlusal vertical dimension.
B. the anterior equivalent of the condylar guidance.
C. a mechanical equivalent of the horizontal and vertical overlap of the anterior teeth.
D. the mechanical equivalent of the Curve of Wilson.

A circumferential clasp arm on a tooth is one which
1. originates above the height of contour.
2. approaches the undercut from an occlusal direction.
3. traverses a portion of the suprabulge of the tooth.
4. extends more than 180° around the tooth.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Tell-show-do technique when used for behaviour management of pediatric patients
A. works best for children under 3 years of age.
B. involves using scientific dental terminology in all explanations.
C. will decrease a child’s fear of the unknown and their anticipation of pain.

Reduction of free way space in complete denture construction will
1. impair aesthetics.
2. cause the dentures to click.
3. traumatize the underlying supporting tissues.
4. induce generalized soreness over the ridges.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

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Needle deflection increases as
A. depth of injection increases.
B. needle length increases.
C. needle gauge decreases.
D. All of the above.

In the presence of an acute bacterial infection, laboratory tests will show an increase in
A. polymorphonuclear leukocytes.
B. plasma cells.
C. lymphocytes.
D. monocytes.
E. eosinophils.

A child has a carious exposure of the pulp in the first molar. The cavity is filled with pink tissue which bleeds when punctured by the explorer. The tissue is slightly sensitive to touch. This is indicative of
A. acute ulcerative pulpitis.
B. chronic serous pulpitis.
C. chronic hyperplastic pulpitis.
D. periapical osteofibrosis.

Facial paralysis following an inferior alveolar nerve block is a result of injecting the solution too far
A. inferiorly.
B. superiorly.
C. posteriorly.
D. anteriorly.

Regarding dental caries, which of the following is correct?
A. All carbohydrates are equally cariogenic.
B. More frequent consumption of carbohydrates increases the risk.
C. The rate of carbohydrate clearance from the oral cavity is not significant.
D. Increased dietary fat increases the risk.

Mouth breathing is most commonly associated with Angle's malocclusion Class
A. I.
B. II, Division 1.
C. II, Division 2.
D. III.
E. None of the above.

The crown-root ratio is
1. the comparison of the length of root retained in bone to the amount of tooth external to it.
2. an important factor in abutment tooth selection.
3. determined from radiographs.
4. determined during surveying of the diagnostic cast.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which patient is LEAST likely to be predisposed to liver toxicity following a dose of 1,000 mg of acetaminophen?
A. An adult with liver cirrhosis.
B. A chronic alcoholic.
C. A diabetic.
D. A 15kg, 4 year old child.

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During tooth development, vitamin A deficiency may result in

A. peg-shaped teeth.
B. partial anodontia (hypodontia).
C. Hutchinson's incisors.
D. enamel hypoplasia.
E. dentinogenesis imperfecta.

Maxillary incisor protrusion can be treated by

1. premolar extraction with orthodontic retraction of the incisors.
2. premolar extraction with surgical repositioning of the anterior dentoalveolar segment.
3. extraction of the incisors, alveoloplasty and prosthodontic replacement.
4. reduction and genioplasty.

A clinical sign of an acute disc dislocation without reduction in the right TMJ is

A. deflection of the mandible to the left at maximal mouth opening.
B. deflection of the mandible to the right during protrusion.
C. maximal opening of 55mm.
D. reciprocal click in the right TMJ.
E. limitation in right laterotrusion.

Which of the following is NOT commonly used by general dentists to treat temporomandibular disorders and bruxism?

A. Hard acrylic splints.
B. Nonsteroidal anti-inflammatory drugs (NSAIDs).
C. Corticosteroids.
D. Muscle relaxants.

A patient with Alzheimer's dementia presents with his personal care worker. His daughter, who is his legal guardian, is unavailable. What is required to obtain informed consent for an elective invasive procedure?

A. The patient’s presence implies consent.
B. Obtain written consent from the patient.
C. Obtain written consent from the personal care worker.
D. Obtain consent from the patient’s daughter.

The most likely diagnosis for a 5 year old patient with multiple well-defined multilocular radiolucencies of the maxilla and mandible is

A. ameloblastic fibromas.
B. ameloblastomas.
C. cherubism.
D. hyperthyroidism.
E. hypophosphatasia.

The most likely diagnosis for a child with a painful, fiery-red, diffuse gingivitis is

A. primary herpetic gingivostomatitis.
B. aggressive periodontitis.
C. idiopathic fibromatosis.
D. aphthous stomatitis.
A positive and prolonged reaction to a heat stimulus indicates that the pulp is
A. necrotic.
B. in an early hyperemic state.
C. normal.
D. irreversibly damaged.

Dental porcelain has
1. low compressive strength.
2. high hardness.
3. high tensile strength.
4. low impact strength.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The physiologic wear of hard dental tissue resulting from mastication is known as
A. decalcification.
B. attrition.
C. abrasion.
D. erosion.

Which of the following is a possible cause for a low density radiograph (light film)?
A. Cold developer.
B. Over exposure.
C. Improper safety light.
D. Excessive developing time.

A 27 year old woman complains of burning mouth, fatigue, palpitations and lack of energy. An oral exam shows angular cheilitis and atrophic glossitis. What is the most likely diagnosis?
A. Iron deficiency anemia.
B. Crohn’s disease.
C. Chronic lymphocytic leukemia.
D. Vitamin B deficiency.

An open proximal contact on an amalgam restoration could have been caused by
1. inadequate wedging.
2. overtightening the matrix band.
3. inadequate condensing forces.
4. simultaneous placement of adjacent proximal restorations.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The most appropriate treatment of acute necrotizing ulcerative gingivitis in a patient with lymphadenopathy is
1. periodontal debridement.
2. occlusal adjustment.
3. oral hygiene instruction.
4. antibiotic therapy.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

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A cementoblastoma is typically a solitary circumscribed

A. radiopacity with a radiolucent rim involving the apicies of a mandibular molar.
B. radiolucency involving the apicies of the mandibular incisors.
C. radiopacity with a radiolucent rim involving the apicies of a mandibular incisor.
D. radiolucency in an edentulous area.

Vitamin C is essential for

A. formation of collagen.
B. osteoid.
C. dentin.
D. cementum.
E. All of the above.

When compared with admixed amalgams, spherical amalgams

A. require less condensation pressure.
B. require shorter trituratiion time.
C. are stronger (24 hour compressive strength).
D. have better resistance to marginal fracture.
E. tarnish more.

Which of the following is contagious?

A. Pemphigus.
B. Acute herpetic gingivostomatitis.
C. Recurrent aphthous stomatitis.
D. Necrotizing ulcerative gingivitis.

Which of the following conditions is an example of a mucous retention phenomenon?

A. Nicotine stomatitis.
B. Koplik’s spots.
C. Ranula.
D. Residual cyst.
E. Nasopalatine cyst.

The most appropriate radiograph to assess an interproximal vertical bony defect of the alveolar bone is the

A. bite-wing.
B. periapical.
C. occlusal.
D. panoramic.

The most appropriate treatment following the extraction of a first primary molar in a 4-year old child is

A. regular assessment of arch development.
B. to perform space analysis.
C. insertion of a space maintainer.
D. extraction of the contra-lateral molar.
E. extraction of the opposing molar.

Note: Some of the items in the Released Test Item Bank may have been discontinued due to outdated science or errors. The NDEB periodically reviews the Bank to improve its quality, content, and translation.
Which of the following has anticonvulsant properties?

A. Acetaminophen.
B. Codeine.
C. Diazepam.
D. Diphenhydramine.
E. Nitrous oxide.

C-factor (configuration factor) is defined as the ratio of

A. width to height in the upper anterior teeth.
B. mercury to alloy in a dental amalgam.
C. bonded to unbonded surfaces in a preparation.
D. filler to monomer in a composite resin.

For a complete denture patient, which letter or sound is a guide for the position of the incisal edge of the maxillary incisors?

A. M.
B. S.
C. F.
D. P.
E. J.

The most likely cause of postoperative sensitivity with Class II composite resin restorations is

A. acid etching of dentin.
B. microleakage at the interface.
C. toxicity of the restorative material.
D. overheating during the finishing process.

The most appropriate treatment for a unicystic ameloblastoma is

A. root canal therapy.
B. hemi-mandibulectomy.
C. block resection.
D. curettage.
E. radiotherapy.

A single hypoplastic defect located on the labial surface of a maxillary central incisor is most likely due to a/an

A. dietary deficiency.
B. endocrine deficiency.
C. tetracycline therapy.
D. trauma to the maxillary primary central incisor.
E. high fluoride intake.

A 23 year old female complains of bilateral stiffness and soreness in the preauricular region. Her symptoms have been present for the past week and are most pronounced in the morning. The most likely cause is

A. fibrous ankylosis of the temporomandibular joints.
B. nocturnal bruxism.
C. early osteoarthritis.
D. mandibular subluxation.

By definition, a compound fracture of the mandible must have

A. multiple bone fragments.
B. exposure to the external environment.
C. a tooth in the line of fracture.
D. displacement of the fractured segments.
A patient has a history of shortness of breath and ankle edema. You would suspect
A. asthma.
B. emphysema.
C. rhinophyma.
D. cardiac insufficiency.

Which of the following is NOT suggestive of a diagnosis of necrotizing ulcerative gingivitis (NUG)?
A. Bleeding from the gingiva.
B. “Punched-out” papillae with necrotic slough.
C. Bad breath.
D. Metallic taste.
E. Periodontal pocketing.

An antipyretic drug
A. reduces fever.
B. provides analgesia.
C. causes loss of consciousness.
D. creates heat sensitivity.
E. counters the tendency for epileptic seizures.

Blue sclera is characteristic of
A. osteopetrosis.
B. osteogenesis imperfecta.
C. osteitis deformans.
D. fibrous dysplasia.

For a cast gold restoration, a gingival bevel is used instead of a shoulder because a bevel
1. protects the enamel.
2. increases retention.
3. improves marginal adaptation.
4. increases the thickness of gold.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

An epinephrine-containing retraction cord has the potential of
A. interfering with the setting of the impression material.
B. causing tissue necrosis.
C. producing a systemic reaction.
D. discolouring gingival tissue.

Which of the following is the most active cell in synthesizing and secreting antibodies?
A. Mast cell.
B. Macrophage.
C. Eosinophilic granulocyte.
D. Plasma cell.
E. T-cell lymphocyte.

Leeway space is the difference in size between the
A. maxillary and mandibular tooth material.
B. primary and the permanent incisors.
C. primary molars and the premolars.
D. maxillary and the mandibular primate space.

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In the mandibular third molar region, a circumscribed radiolucent area 3cm in diameter contains the crown of the developing third molar. The radiolucent area suggests

A. a simple bone cyst/traumatic bone cyst.
B. a dentigerous cyst.
C. Stafne's idiopathic bone cavity.
D. an eruption cyst.

Which of the following will increase image sharpness on radiographs?

A. Small focal spot.
B. Long source-film distance.
C. Short object-film distance.
D. All of the above.

Hydrochlorothiazide (Hydrodiuril) is used to treat

1. hypertension.
2. angina pectoris.
3. atrial fibrillation.
4. ventricular fibrillation.
5. congestive heart failure.

A. (1) and (2)
B. (2) and (3)
C. (3) and (4)
D. (1) and (5)

Which of the following will improve the prognosis of a rebonded fractured tooth fragment?

1. Total etching and dentin donding.
2. Use of a groove in the fragment.
3. Having a single larger fragment to rebound.
4. re-inforcing the fracture line with composite.

A. (1) and (3)
B. (2) and (4)
C. (1) (2) (3)
D. (4) only
E. All of the above.

In children, the most common cause of a fistula is a/an

A. acute periradicular abscess.
B. suppurative periradicular periodontitis.
C. acute periodontal abscess.
D. dentigerous cyst.

Which of the following statements is true regarding the use of nickel titanium (Ni Ti) rotary endodontic files?

A. Files which are more tapered fracture less often than less tapered ones.
B. Files are highly resistant to fatigue failure.
C. Fractures tend to happen near the tip of files.
D. Smaller diameter files fracture more easily than larger ones.

Fractured incisal angles in the permanent teeth of adolescent patients are best restored using

A. stainless steel crowns.
B. gold castings.
C. full coverage restorations.
D. acid etch composite resin techniques.

Angular cheilitis in older patients who wear complete dentures is most likely associated with

A. antibiotic therapy.
B. decreased vertical dimension.
C. decreased salivary flow.
D. vitamin B deficiency.

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It is usually best to treat which of the following conditions as early as possible?

A. Rotated incisors.
B. A diastema between the upper central incisors.
C. Cross-bites with midline discrepancies.
D. Teeth in poor axial inclination.
E. Dentitions with an end-to-end bite.

Which one of the following effects is expected with a therapeutic dose of acetaminophen?

A. Gastrointestinal irritation.
B. Increased bleeding.
C. Anti-inflammatory action.
D. Antipyretic action.

Total removal of subgingival calculus on a tooth with pockets more than 5mm deep is best achieved by

A. ultrasonic scaling.
B. root planing.
C. surgery and scaling.
D. subgingival irrigation.

What is the alloy of choice for the framework of a resin-bonded fixed bridge?

A. Nickel-chromium.
B. Gold-palladium.
C. Gold-silver.
D. Gold-platinum-palladium.

Increased tooth mobility and the absence of lamina dura are signs of

A. hyperthyroidism.
B. hyperpituitarism.
C. hyperparathyroidism.
D. scleroderma.

Lidocaine is an

A. amide.
B. ester.
C. aldehyde.
D. acid.

The benign neoplasm that originates from squamous epithelium is called a/an

A. adenoma.
B. choriocarcinoma.
C. chondroma.
D. lipoma.
E. papilloma.
Early signs and symptoms of localized alveolar osteitis (dry socket) include

1. bleeding.
2. bad odour.
3. pus formation.
4. pain.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Eosinophilic granuloma

A. is found only at the apices of non-vital teeth.
B. occurs in infants.
C. is a non-lipid reticulo-endotheliosis.
D. is caused by a virus.

Highly filled, hybrid, posterior composite resins are CONTRAINDICATED as a posterior restorative material in cases of

1. cusp replacement.
2. bruxism.
3. lack of enamel at the gingival cavo-surface margin.
4. inability to maintain a dry operating field.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A dental laboratory has returned a removable partial denture framework. The framework fit the master cast well but when tried in the mouth, a stable fit could not be achieved. The possible cause(s) of the problem is/are

1. distortion in the final impression.
2. insufficient retention.
3. improper pour of the master cast.
4. casting error.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Crown-root ratio and residual bone support can best be seen radiographically in

A. a panoramic film.
B. a bite-wing film.
C. a periapical film - bisecting angle technique.
D. a periapical film - paralleling technique.

Which of the following is a reason to perform initial periodontal debridement before periodontal surgery?

A. Increase the attachment levels.
B. Reduce infrabony pockets.
C. Reduce bleeding during the surgery.
D. Increase the width of keratinized tissue.

A 10 year old patient has lost a maxillary permanent central incisor. The most appropriate management is

A. delay treatment until all permanent teeth are erupted.
B. place a removable space maintainer.
C. place a bonded resin bridge (Maryland bridge).
D. place a conventional fixed partial denture.
E. place a single tooth implant.
The facial and lingual walls of the occlusal portion of a Class II cavity preparation for an amalgam in deciduous teeth should

A. be parallel to each other.
B. diverge toward the occlusal surface.
C. converge toward the occlusal surface.
D. not follow the direction of the enamel rods.

The amount of radiation is best reduced by

A. using collimation.
B. decreasing the object-film distance.
C. lowering kVp and increasing milliamperage.
D. decreasing the target-object distance.

A removable partial denture is preferable to a fixed bridge when the

A. edentulous areas are large.
B. abutment teeth have large undercuts.
C. abutment teeth are rotated.
D. abutment teeth are tipped.
E. residual ridges are severely resorbed.

Lichen planus occurs most frequently on the

A. buccal mucosa.
B. tongue.
C. floor of the mouth.
D. gingiva.

Loss of sensation over the distribution of the inferior dental nerve is a possible complication of

A. removal of an impacted mandibular third molar tooth.
B. removal of a torus mandibularis.
C. a forceps removal of a mandibular second molar.
D. distal wedge periodontal surgery.

When using the periodontal probe to measure pocket depth, the measurement is taken from the

A. base of the pocket to the cementoenamel junction.
B. free gingival margin to the cementoenamel junction.
C. base of the pocket to the crest of the free gingiva.
D. base of the pocket to the mucogingival junction.

In complete denture construction, a custom tray should be fabricated to ensure that

1. the flanges are not overextended.
2. the distal extension is adequate.
3. there is relief for muscle attachments.
4. the tray has adequate space for the impression material.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following is NOT correct regarding nitroglycerin used for medical emergencies?

A. It is indicated for the definitive management of angina pectoris.
B. It is indicated for the early management of a myocardial infarction.
C. It should be administered sublingually.
D. Its administration will increase blood pressure.
E. Exposure to air or light shortens the shelf-life of the tablets.

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A surgical template (stent/guide) for an immediate maxillary denture is used to

A. control hemorrhage while the new denture is being fabricated.
B. protect the extraction sites while fitting the denture.
C. assist in remounting the denture prior to refining the occlusion.
D. indicate areas that require additional hard or soft tissue removal.

In the development of gingivitis, the fibre groups first lost are

A. oblique.
B. horizontal.
C. transeptal.
D. free gingival.

Soft tissue pockets CANNOT be reduced by

A. occlusal adjustment.
B. scaling and root planing (debridement).
C. open flap curettage.
D. guided tissue regeneration.

Administration of which of the following is most likely to predispose a patient to seizures?

A. Acetaminophen.
B. Codeine.
C. Ibuprofen.
D. Ketorolac.
E. Meperidine.

In long-standing gingivitis, the subgingival microflora shifts toward

A. aerobic bacteria.
B. Gram-positive bacteria.
C. Gram-negative anaerobic bacteria.
D. None of the above.

Which of the following is NOT a sign or symptom of the myofascial pain dysfunction syndrome?

A. Pain.
B. Muscle tenderness.
C. Limitation of jaw motion.
D. "Clicking" or "popping" noise in the joints.
E. Radiographic changes of the joint.

Dental plaque

A. contains insoluble glucans.
B. contains food particles.
C. contains predominantly Gram-negative organisms.
D. becomes less anaerobic as it matures.

The most common complication associated with the use of local anesthetics is

A. syncope.
B. trismus.
C. a toxic reaction.
D. an allergic reaction.
E. an anaphylactic reaction.

Radiographic examination reveals early evidence of internal resorption. The most appropriate management is

A. apical surgical intervention.
B. immediate pulp extirpation.
C. immediate pulpotomy.
D. observation and re-evaluation in 3-6 months.
E. calcium hydroxide pulpotomy.

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Which of the following radiographs is best to diagnose caries and early alveolar bone loss?

A. Periapical.
B. Occlusal.
C. Bitewing.
D. Lateral jaw.
E. Panoramic.

Which of the following is consistent with reversible pulpitis?

A. Discontinuous lamina dura and a periapical radiolucency.
B. Draining sinus tract that traces to the apex of the tooth.
C. Pain to cold that ceases with removal of the stimulus.
D. Painful response to percussion and palpation.

Melanoma differs from physiologic pigmentation because it

A. is macular.
B. contains melanin.
C. affects the gingiva.
D. changes clinically.

An end result of ionizing radiation used to treat oral malignancies is

A. deformity of the jaws.
B. reduced vascularity of the jaws.
C. increased vascularity of the jaws.
D. increased brittleness of the jaws.

Which of the following increases the sharpness of a radiograph?

A. Small focal spot.
B. Short focal spot-to-film distance.
C. Long object-to-film distance.

Endotoxin is

A. a cell wall component of gram-negative bacteria.
B. a potent inflammatory agent.
C. present in diseased root cementum.
D. All of the above.

Which of the following dental procedures could be performed with minimal risk for a 35 year old patient with a severe bleeding disorder?

A. Mandibular block anesthesia.
B. Supragingival calculus removal.
C. Incisional biopsy.
D. Subgingival restoration.

A pontic should

A. exert no pressure on the ridge.
B. be contoured by scraping the master cast.
C. have a large surface area in contact with the ridge.
D. contact nonkeratinized tissue.

A lowering of serum calcium is the stimulus for the endogenous release of

A. thyroid hormone.
B. adrenocortical hormone.
C. insulin.
D. parathyroid hormone.
E. adrenalin.

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Which of the following should be checked first when a cast gold crown that fits on its die cannot be seated on its abutment?

A. The occlusal contacts.
B. The taper of the preparation.
C. The proximal contacts.
D. The impression used to pour the cast.

A lowering of serum calcium is the stimulus for the endogenous release of

A. thyroid hormone.
B. adrenocortical hormone.
C. insulin.
D. parathyroid hormone.
E. adrenalin.

Which of the following is the most appropriate treatment for a child with acute primary herpetic gingivostomatitis?

A. Analgesic and hydration therapy.
B. Antibiotic therapy.
C. Topical corticosteroïd therapy.
D. Topical antifungal therapy.

Ankylosed primary teeth may be recognized by their

A. percussion sensitivity.
B. discolouration.
C. crown shape.
D. buccolingual displacement.
E. infraocclusal position.

The permanent anterior tooth that exhibits the greatest variation in size and shape is the

A. maxillary central incisor.
B. maxillary lateral incisor.
C. mandibular central incisor.
D. mandibular lateral incisor.

Final treatment planning for the combined surgical-orthodontic correction of a dentofacial deformity should include

A. predetermined occlusion on dental models.
B. mock surgery on appropriately mounted models.
C. cephalometric analysis with prediction tracing.
D. All of the above.

The function of the fixer solution is to

1. harden the emulsion.
2. convert the latent image to black metallic silver.
3. remove unexposed silver halide.
4. continue the action of the developer.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The dimensional stability of polyether impression material is considered to be good EXCEPT if the material is

A. dehydrated.
B. allowed to absorb water after setting.
C. used in uneven thickness.
D. distorted by rapid removal of the impression from the mouth.
E. contaminated with latex.

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Which of the following has the highest rate of recurrence?  
A. Odontogenic keratocyst.  
B. Nasoalveolar cyst.  
C. Median palatal cyst.  
D. Incisive canal cyst.  

A gluteal intramuscular injection may be safely administered in which quadrant?  
A. Lower medial.  
B. Upper medial.  
C. Lower lateral.  
D. Upper lateral.  

Which of the following physical properties would be least important for an impression material for partially edentulous patients?  
A. Biocompatibility.  
B. Dimensional stability.  
C. Ease of manipulation.  
D. Adhesion to calcium.  
E. Elasticity.  

Twenty-four hours following the simple extraction of tooth 4.7, a patient presents with severe bleeding from the extraction site. The most likely cause of this bleeding is a/an  
A. disturbance of the hemostatic plug.  
B. infection of the socket.  
C. undiagnosed coagulopathy.  
D. dry socket.  

A patient has a history of shortness of breath and ankle edema. You would suspect  
A. asthma.  
B. emphysema.  
C. rhinophyma.  
D. cardiac insufficiency.  

An accidental injection of diazepam into an artery instead of a vein may cause  
A. pain on vessel puncture.  
B. bright red blood on aspiration.  
C. severe pain in the limb extremities.  
D. gangrene of the limb.  
E. All of the above.  

A characteristic of a periodontal pocket is  
A. gingival edema.  
B. gingival hyperplasia.  
C. alveolar bone loss.  

Which of the following statements about chlorhexidine is INCORRECT?  
A. It disrupts bacterial cell membranes.  
B. It binds tenaciously to oral surfaces.  
C. It interferes with adherence of plaque-forming microorganisms.  
D. Mutans streptococci are preferentially destroyed.  
E. It is commonly used for long-term therapy.  

When light-cured composite resins are placed  
A. surface polymerization is inhibited by carbon dioxide (CO₂).  
B. the degree of conversion is 85-95%.  
C. increments of resin should not exceed 2mm.  
D. polymerization shrinkage increases with filler content.
In an ideal Class I occlusion, the cusp of which mandibular tooth is in contact with the central fossa of the maxillary second molar?

A. Mesiobuccal cusp of the first molar.
B. Distobuccal cusp of the first molar.
C. Mesiobuccal cusp of the second molar.
D. Distobuccal cusp of the second molar.

Which of the following is/are correct?

A. Basal and alveolar bone are histologically identical.
B. Basal and alveolar bone respond identically to pressure.
C. Osteoid is a highly mineralized bundle bone.

A patient complains of dull, constant pain in his jaws upon awakening. You would suspect

A. acute pulpitis.
B. sinusitis.
C. bruxism.
D. chronic gingivitis.

Which of the following would you prescribe for an anxious dental patient with a peptic ulcer?

A. Reserpine.
B. Scopolamine.
C. Silica gel.
D. Diazepam.
E. Calcium carbonate.

Which of the following maxillary teeth are more likely to present with a palatal abscess?

1. Lateral incisors.
2. Central incisors.
3. First molars.
4. First premolars.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following modifications to the standard procedure for mixing gypsum products will increase the compressive strength of the set material?

A. Adding a small amount of salt to the water before mixing.
B. Decreasing the water/powder ratio by a small amount.
C. Using warmer water.
D. Decreasing the mixing time.

After a tooth surface has been completely cleaned, the new glycoprotein coating which forms on the surface is called

A. pellicle.
B. plaque.
C. materia alba.
D. biofilm.

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Which is the most appropriate prophylactic antibiotic for a patient with mitral valve prolapse with regurgitation undergoing a surgical dental procedure?

A. Intravenous ampicillin.
B. Clindamycin per os.
C. Intravenous vancomycin.
D. Erythromycin per os.
E. Amoxicillin per os.

A patient presents with apparent paralysis of one side of the face which appeared the day before. What is the most likely diagnosis?

A. Glossodynia.
B. Bell’s palsy.
C. Myasthenia gravis.
D. Trigeminal neuralgia.

Which of the following substances causes inflammation and pain when released by pulpal fibres?

A. Prostaglandin E$_2$.
B. Calcitonin gene related peptide.
C. Neuraminase.
D. Acetylcholine.

Which of the following is/are associated with an unerupted tooth?

1. Odontogenic adenomatoid tumor.
2. Periapical cemento-osseous dysplasia.
3. Calcifying epithelial odontogenic tumor.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following variables has the greatest effect on bond strength?

A. Moisture control.
B. Size of the bracket base.
C. Type of acid etch.
D. Composition of the resin cement.
E. Patient oral hygiene.

The characteristic oral lesion(s) of pemphigus is/are

A. vesicles and bullae.
B. Fordyce’s granules.
C. white plaques.
D. hairy tongue.
E. candidiasis (candidosis).

After processing, complete dentures on the original stone casts are rearticulated in order to correct occlusal disharmony produced by

A. flaking and processing procedures.
B. inaccurate jaw relation records.
C. errors in registering of centric relation record.

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Saliva is most effective in minimizing an acid challenge by its

A. lubrication function.
B. antimicrobial effect.
C. buffering action.
D. fluoride concentration.

Assuming there is adequate tooth structure remaining, composite resins can be used as a core material for endodontically treated teeth to be crowned provided

A. the resin has a high contrast colour with tooth structure.
B. there is an adequate ferrule.
C. the resin is autopolymerizing.
D. subsequent crown margins are not located on cementum.

A characteristic of malignant tumors is the ability to

A. invade and metastasize.
B. grow to large size and remain within their capsule.
C. remain localized.
D. grow slowly.

The difference(s) between deciduous and permanent teeth is/are best described by the following statement(s):

A. The deciduous root trunk is shorter.
B. The deciduous enamel is thinner and appears whiter.
C. The deciduous molar roots flare more.
D. (A) and (C)
E. All of the above.

A 19 year old female (with otherwise healthy dentition) presents with erosion of the lingual surfaces of all maxillary anterior teeth. This is most likely caused by

A. xerostomia.
B. occlusal parafunction.
C. diet high in citrus fruit.
D. bulimia.

An anterior cross-bite of a permanent maxillary incisor in a mixed dentition is often associated with

A. a functional shift.
B. unexplainable genetic factors.
C. lingually situated supernumerary teeth.
D. prolonged retention of a primary incisor.
E. premature eruption of a maxillary incisor.

When compared to permanent teeth, primary teeth have

A. a greater thickness of enamel.
B. a greater thickness of dentin.
C. more prominent cervical constriction.
D. pulps which are smaller in relation to crown size.

Which of the following is NOT characteristic of periodontitis?

A. Hypertrophy of the gingiva.
B. Pocket formation without exudation.
C. Destruction of the periodontal ligament.
D. Alveolar bone resorption.
Which of the periodontal ligament fibres are most commonly associated with orthodontic relapse?

A. Oblique.
B. Diagonal.
C. Horizontal.
D. Supracrestal.

Flux is added to the casting metal during melting to

A. minimize oxidation.
B. enhance melting.
C. increase stiffness.
D. decrease fluidity.

A patient has been receiving dental treatment over a period of 1 year. A root canal treatment has recently been started but not completed when she declares that her husband has lost his job and she is not able to pay the balance of the fee assessed for her root canal treatment. She is presently free of pain. The dentist can terminate treatment

A. only after completion of the root canal treatment.
B. for failure to honor financial commitments.
C. until the patient is able to pay for it.
D. only after completion of the root canal treatment and a full crown restoration.
E. by referring the patient to an endodontist.

A radiograph reveals a radiolucency associated with the apex of tooth 1.5. There is a large restoration but the tooth is asymptomatic and the associated soft tissues appear normal. What is the most likely diagnosis?

A. Acute periradicular periodontitis.
B. Chronic periradicular periodontitis.
C. Acute periradicular abscess.
D. Chronic suppurative periradicular periodontitis.

Which of the following does NOT block cyclooxygenase-2?

A. Acetaminophen.
B. Acetylsalicylic acid.
C. Celecoxib.
D. Diflunisal.
E. Ibuprofen.
The success of indirect pulp capping is dependent upon

A. removal of all caries at the enamel-dentin junction.
B. use of calcium hydroxide.
C. a well sealed restoration.
D. All of the above.

The fixing solution serves the purpose of

1. carrying on development.
2. hardening the emulsion.
3. removing unexposed silver salts.

A. (1) and (2)
B. (1) and (3)
C. (2) and (3)
D. All of the above.
E. None of the above.

Which of the following lesions is most commonly found in the anterior region of the mandible?

A. Ameloblastoma.
B. Calcifying epithelial odontogenic tumor (Pindborg tumour).
C. Central cementifying fibroma.
D. Periapical osseous dysplasia.

The permanent first molars of a 7 year old patient have pronounced, deep occlusal fissures that are stained. Bitewing radiographs show a normal dentino-enamel junction. The treatment of choice is

A. conservative amalgam restorations.
B. glass ionomer restorations.
C. application of fissure sealants.
D. topical fluoride application.
E. no recommended treatment.

Ionization of local anesthetics is facilitated by a tissue pH

A. above 7.4.
B. at 7.4.
C. below 7.4.

In which of the following will the effects of polymerization shrinkage be greatest?

A. Class I occlusal restoration.
B. Preventive resin restoration.
C. Direct veneer restoration.
D. Class IV restoration.

The physiologic rest position of the mandible is

1. a position determined by the musculature.
2. a fairly constant position throughout life.
3. used in determining occlusal vertical dimension.
4. used when making a centric interocclusal record.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following is NOT correlated to early implant failure?

A. Age of the patient.
B. Type III/IV bone around the implant.
C. Poorly controlled diabetes.
D. Regular smoking habit.

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A periradicular granuloma

A. erodes rapidly through bone.
B. is asymptomatic.
C. is intensely painful.
D. occurs only in young adults.
E. occurs at the apex of a vital tooth.

When prescribing antibiotics for an orofacial infection in a healthy elderly patient, the usual adult dose and duration of the prescription should be written using the following guidelines. The dose is

A. decreased by one half, duration unchanged.
B. decreased by one third, duration unchanged.
C. unchanged, duration unchanged.
D. increased by one third, duration unchanged.
E. unchanged, duration extended by one half.

Tetracyclines have all of the following properties EXCEPT

A. absorption is impaired when taken with milk.
B. they predispose patients to candidial infection.
C. they form stable complex with the developing tooth matrix.
D. they may be substituted for amoxicillin in patients that require coverage to prevent subacute bacterial endocarditis.

Which of the following drugs is a natural alkaloid obtained from opium?

A. Hydromorphone.
B. Meperidine.
C. Methadone.
D. Codeine.
E. Morphine.

Posts in endodontically treated teeth should have

1. high strength.
2. a low elastic limit to flex with the tooth.
3. good radiopacity
4. bondability to tooth structure.

The last primary tooth to be replaced by a permanent tooth is usually the

A. maxillary canine.
B. mandibular canine.
C. maxillary first molar.
D. mandibular second molar.

Note: Some of the items in the Released Test Item Bank may have been discontinued due to outdated science or errors. The NDEB periodically reviews the Bank to improve its quality, content, and translation.
Which of the following improve the prognosis of pulp vitality after indirect pulp capping?

1. Use of calcium hydroxide.
2. Having a well-sealed restoration.
3. Reducing other traumas to the pulp.
4. Removing all caries in the pulp cap area.

A. (1) and (3)
B. (2) and (4)
C. (1) (2) (3)
D. (4) only
E. All of the above.

A cold stimulus applied to a tooth will produce a hypersensitive response if the tooth

A. is nonvital.
B. has a periodontal pocket.
C. has a hyperemic pulp.
D. has chronic proliferative pulpitis.

Marginal leakage of a composite resin restoration will

A. not be detectable.
B. be minimized by use of a bonding agent.
C. decrease with longevity.
D. None of the above.

The penetration of a local anesthetic into nerve tissue is a function of the

A. length of the central alkyl chain.
B. lipid solubility of the un-ionized form.
C. ester linkage between the aromatic nucleus and the alkyl chain.
D. amide linkage between the aromatic nucleus and the alkyl chain.

A preparation for a metal-ceramic crown with a porcelain butt joint margin should have a

1. 90° cavosurface margin.
2. subgingival finish line.
3. 1.2mm shoulder.
4. 90° axiogingival angle.

The most effective way of minimizing a patient’s radiation dose is

A. a lead apron and thyroid collar.
B. prescription radiography.
C. fast emulsion film.
D. intensifying screens.

Sickle cell anemia is

A. a genetic disease.
B. caused by exposure to radiation.
C. a viral infection.
D. a drug reaction.
E. an auto-immune disease.

Exfoliative cytology is of value in the diagnosis of

A. lichen planus.
B. aphthous ulceration.
C. herpes simplex.
D. benign mucous membrane pemphigoid.
E. erythema multiforme.

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Enlargement of the gingiva, described as idiopathic fibromatosis, is best described as
A. degeneration.
B. inflammation.
C. hyperplasia.
D. neoplasia.

The rate of setting of alginate impression materials can be increased by
A. increasing the water/powder ratio.
B. increasing the temperature of the mixing water.
C. adding sodium phosphate to the mixing water.
D. decreasing the amount of mixing.

The design of a mucoperiosteal flap should
1. provide for visual access.
2. provide for instrument access.
3. permit repositioning over a solid bone base.
4. be semilunar in shape.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

It is difficult to obtain satisfactory anesthesia in the presence of infection near the injection site because
A. the swelling causes increased pressure on the nerves.
B. increased blood supply carries the anesthetic solution away too fast.
C. acidity of the infected tissue inhibits action of the anesthetic agent.
D. alkalinity of the infected tissue inhibits action of the anesthetic agent.

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Diazepam

1. is a benzodiazepine.
2. is contraindicated in a patient with acute narrow angle glaucoma.
3. is anxiolytic.
4. produces amnesia.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Alginate hydrocolloids

A. shrink when stored in air.
B. show syneresis.
C. expand when stored in water.
D. All of the above.

Premature loss of primary molars may result in

A. decrease in the curve of Spee.
B. decrease in the overbite and overjet.
C. increase in frequency of eruption irregularities.
D. increase in vertical dimension.

Which class of drugs should first be considered for oral sedation in the adult patient?

A. Antihistamines.
B. Barbiturates.
C. Benzodiazepines.
D. Opioids.
E. Phenothiazines.

Adult orthodontics is limited by the

A. age of the patient.
B. density of the bone.
C. health of the supporting structures.
D. missing teeth.
E. time factor in treatment.

Prior to the placement of polycarboxylate cement as a base for a restoration, the cavity preparation should be

A. painted with cavity varnish.
B. cleaned with hydrofluoric acid.
C. thoroughly dried with warm air.
D. cleaned with water and air dried.

Which of the following penicillins is most effective against Gram-negative organisms?

A. Nafcillin.
B. Ampicillin.
C. Methicillin.
D. Penicillin V.
E. Phenethicillin.

An epinephrine-containing retraction cord has the potential of

A. interfering with the setting of the impression material.
B. causing tissue necrosis.
C. producing a systemic reaction.
D. discolouring gingival tissue.

A periradicular granuloma can be differentiated from a periradicular cyst by the

A. radiographic appearance.
B. patient’s symptoms.
C. response to percussion testing.
D. results of the biopsy.

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A 2½ year old child has intruded maxillary central incisors which are not in proximity to the permanent successors. What is the most appropriate management?

A. Reposition the teeth and splint.
B. Reposition the teeth and do not splint.
C. Monitor the teeth for re-eruption.
D. Extract the teeth.

In comparison to gold alloys, base metal alloy removable partial denture frameworks can be made

A. more corrosion resistant.
B. lighter.
C. more ductile.
D. with greater casting accuracy.

The primary purpose(s) of relining a distal extension base of a removable cast framework partial denture is/are to improve

1. fit of the framework.
2. occlusion.
3. function.
4. tissue adaptation.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which cells migrate into the gingival sulcus in the largest numbers in response to the accumulation of plaque?

A. Plasma cells and monocytes.
B. Polymorphonuclear leukocytes.
C. Macrophages.
D. Lymphocytes.
E. Mast cells.

Root resorption of permanent teeth may be associated with

1. excessive orthodontic forces.
2. chronic periradicular periodontitis.
3. traumatic injury.
4. periapical cemento-osseous dysplasia.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

In comparison to gold alloys, base metal alloy removable partial denture frameworks can be made

A. more corrosion resistant.
B. lighter.
C. more ductile.
D. with greater casting accuracy.

Procaine (Novocaine®) is an example of a local anesthetic which is chemically classified as an

A. amide.
B. ester.
C. aldehyde.
D. ethamine.
E. aminide.

The surgical removal of tooth 3.6 requires anesthesia of the inferior alveolar nerve as well as which of the following nerves?

A. Lingual, cervical plexus.
B. Cervical, long buccal.
C. Lingual, long buccal.
D. Mental, long buccal.

Which of the following prevents distortion of a reversible hydrocolloid impression material?

A. Slow removal from undercuts.
B. Storage in 100% humidity for 30 minutes.
C. Storage in air.
D. Storage in 2% solution of potassium sulfate for 60 minutes.

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A crown margin can be extended subgingivally when required

1. for esthetics.
2. to increase retention.
3. to reach sound tooth structure.
4. for caries prevention.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The accuracy of alginate impression materials will be improved if

A. the space between the tray and the teeth is 1-2mm.
B. the space between the tray and the teeth allows 4-5mm of alginate.
C. the impression is removed slowly from the undercuts around the teeth.
D. the impression is soaked in water for 1 hour.

Which of the following methods of instrument sterilization uses the lowest temperature?

A. Steam autoclave.
B. Dry heat oven.
C. Ethylene oxide method.
D. Glass bead sterilizer.
E. Alcohol autoclave.

Which of the following muscles of mastication is associated with the condylar head and the articular disc?

A. Masseter.
B. Temporalis.
C. Medial pterygoid.
D. Lateral pterygoid.

Continued smoking will impair wound healing following a surgical procedure because of

A. stain development.
B. increased rate of plaque formation.
C. increased rate of calculus formation.
D. contraction of peripheral blood vessels.
E. superficial irritation to tissues by smoke.

During healing following implant placement, the cells that generate new bone tissue are

A. osteoblasts.
B. osteocytes.
C. osteoclasts.
D. osteophytes.

The central action of caffeine is principally on

A. cerebral cortex.
B. corpus callosum.
C. hypothalamus.
D. spinal cord.

The terminal plane relationship of primary second molars determines the

A. arch length between permanent second molars.
B. future anteroposterior positions of permanent first molars.
C. vertical dimensions of the mandible upon eruption of permanent first molars.
D. amount of leeway space that is available for permanent premolars and canines.

The sensation of sour is mediated by

A. transducin.
B. protons blocking K+ channels.
C. gustducin.
D. activation of T1R3 receptors.

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In the design of a removable partial denture, guiding planes are made

A. parallel to the long axis of the tooth.
B. parallel to the path of insertion.
C. at a right angle to the occlusal plane.
D. at a right angle to the major connector.

Excessive force in orthodontic tooth movement is positively correlated with

1. faster movement.
2. slower movement.
3. root resorption.
4. periodontal damage.

Twenty-four hours after placement of a Class II amalgam restoration, a patient returns complaining of discomfort when "biting". There are no other symptoms. It is most likely that the

A. pulp was exposed.
B. restoration is leaking.
C. restoration is in supra-occlusion.
D. amount of base material is inadequate.

All of the following are side effect of prolonged tetracycline hydrochloride therapy EXCEPT

A. superinfection.
B. photosensitivity.
C. vestibular disturbances.
D. discoloration of newly forming teeth.
E. gastrointestinal symptoms (when administered orally).

Which disorder presents with all permanent teeth exhibiting shortened roots, obliterated pulp canals, small crescent-shaped pulp chambers and apical radiolucencies?

A. Amelogenesis imperfecta.
B. Dentinogenesis imperfecta.
C. Dentin dysplasia type I.
D. Dentin dysplasia type II.

The surgical procedure indicated for odontogenic cysts is

A. enucleation.
B. cauterization.
C. incision and drainage.

When compared with that of its permanent successor, the occlusal surface of the primary mandibular second molar is

A. larger mesiodistally.
B. equal mesiodistally.
C. narrower mesiodistally.
D. equal buccolingually and mesiodistally.

The most common risk associated with vital bleaching using 10% carbamide peroxide in a custom tray is

A. superficial enamel demineralization.
B. soft tissue reaction.
C. tooth sensitivity.
D. cytotoxicity.

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Ethically, a dentist can

A. compensate a referring dentist.
B. collect the third party payment without requesting the patient’s portion.
C. bill an insurance company a higher than usual fee, for the patient’s benefit.
D. charge different fees when warranted by clinical conditions.

A 45 year old, overweight man reports that his wife complains that he snores. The initial management of the patient’s snoring problem is to

A. fabricate an appliance to reduce snoring.
B. fabricate restorations to increase the patient’s vertical dimension of occlusion.
C. refer for an orthognathic surgery consultation.
D. refer for a sleep assessment.

Normal sulcular epithelium in man is

1. nonkeratinized.
2. squamous.
3. stratified.
4. nonpermeable.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

An anterior bite plane will NOT result in

A. decrease of the freeway space.
B. increase of the freeway space.
C. increase of the vertical dimension.
D. extrusion of the posterior teeth.
E. downward and backward mandibular rotation.

Correction of an inadequate zone of attached gingiva on several adjacent teeth is best accomplished with a/an

A. apically repositioned flap.
B. laterally positioned sliding flap.
C. double-papilla pedicle graft.
D. coronally positioned flap.
E. free gingival graft.

Which of the following statements is true?

A. A major percentage of radiographically detected proximal radiolucencies in enamel are cavitated.
B. Caries progression through enamel can take as long as 6 to 8 years.
C. Caries progression can only be arrested in enamel.
D. Arrested carious lesions in enamel are softer than intact enamel.

The epithelial attachment

A. in health, is located at the cemento-enamel junction.
B. with periodontitis, moves apically along the root surface as periodontal disease progresses.
C. is composed of stratified squamous non-keratinized epithelium.
D. All of the above.
Root resorption of permanent teeth may be associated with

1. excessive orthodontic forces.
2. periapical granuloma.
3. traumatic injury.
4. cementoma.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

An altered cast impression technique for free-end extension mandibular partial denture cases is done primarily to

1. capture soft tissue in a supporting form.
2. capture the retromylohyoid area.
3. prevent displacement of the retromolar pad.
4. allow jaw relation records to be made simultaneously with impression making.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which of the following is NOT a sign of pulpal necrosis in immature teeth?

A. Loss of thermal sensitivity.
B. Coronal discolouration.
C. Periradicular radiolucency.
D. Negative response to electric pulp test.
E. Abnormal mobility.

Irreversible hydrocolloid materials are best removed from the mouth by

A. a quick snap.
B. a slow teasing motion.
C. twisting and rocking.
D. having the patient create a positive pressure.

Condensing osteitis in the periapical region is indicative of a/an

A. acute inflammation of the pulp.
B. pulpal abscess.
C. chronic inflammation of the pulp.
D. early apical abscess formation.

Collagen

A. is most common in hard tissues.
B. forms insoluble high tensile strength fibres.
C. has a triple helical structure.
D. All of the above.

Smooth surface caries begins at localized areas on the

A. outer surface of enamel and dentin.
B. inner surface of the enamel.
C. outer surface of the dentin.
D. outer surface of the enamel.
E. inner surface of the dentin.

The most likely cause of tooth loss following a tunneling procedure to provide complete access for a mandibular Class III furcation involvement is

A. root caries.
B. root sensitivity.
C. pulpal involvement.
D. recurrent pocketing.
For a 1 year old child with primary herpetic gingivostomatitis, the most appropriate management is to

A. prescribe antibiotics.
B. immunize against chicken pox.
C. maintain adequate fluid intake.
D. debride the lesions.
E. swab the lesions with chlorhexidine.

Which of the following drugs potentiates the action of sedative drugs?

A. Digitalis.
B. Phenothiazine.
C. Propranolol.
D. Methyldopa.
E. Spironolactone.

Enlargement of the thyroid gland can be caused by

A. insufficient fluoride.
B. excess iodine.
C. insufficient iodine.
D. excess calcium.
E. excess sodium.

The higher modulus of elasticity of a chromium-cobalt-nickel alloy, compared to a Type IV gold alloy, means that chromium-cobalt-nickel partial denture clasp will require

A. a heavier cross section for a clasp arm.
B. a shorter retentive arm.
C. more taper.
D. a shallower undercut.

When gold or a gold alloy changes from a liquid to a solid state it

A. expands.
B. contracts.
C. corrodes.
D. becomes brittle.
E. work hardens.

In restoring occlusal anatomy, the protrusive condylar path inclination has its primary influence on the morphology of

A. cusp height.
B. anterior teeth only.
C. mesial inclines of maxillary cusps and distal inclines of mandibular cusps.
D. mesial inclines of mandibular cusps and distal inclines of maxillary cusps.

Dietary deficiency of vitamin D can result in

A. abnormal formation of osteoid.
B. osteitis fibrosa cystica.
C. Paget's disease.
D. myositis ossificans.
E. osteogenesis imperfecta.

In a standard inferior alveolar nerve block, which muscle is penetrated by the needle?

A. Buccinator.
B. Mylohyoid.
C. Superior constrictor.
D. Masseter.
E. Medial (internal) pterygoid.

A clinical sign of unilateral fracture of the body of the zygoma is

A. cerebrospinal rhinorrhea.
B. impaired hearing.
C. subconjunctival haemorrhage.
D. otorrhea.

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For a patient with complete dentures, insufficient space between the maxillary tuberosity and the retromolar pad will require

A. avoiding covering the pad with the mandibular base.
B. not covering the tuberosity with the maxillary base.
C. surgically reducing the retromolar pad.
D. surgically reducing the maxillary tuberosity.

To improve denture stability, mandibular molar teeth should normally be placed

A. over the crest of the mandibular ridge.
B. buccal to the crest of the mandibular ridge.
C. over the buccal shelf area.
D. lingual to the crest of the mandibular ridge.

When exposing radiographic film, the amount of radiation received by the patient is best reduced by

A. collimation.
B. decreased object-film distance.
C. low kVp correlated with high milliamperage.
D. decreased target-object distance.

Leucite is added to porcelain fused to metal crowns to

A. decrease the thermal expansion coefficient of porcelain.
B. decrease the fusing temperature.
C. increase the translucency.
D. increase strength to the porcelain.

A 58 year old woman complains of electric shock-like pain on the left side of the chin and lip when eating or taking a hot shower. Which of the following medications should be used to confirm the diagnosis?

A. Amoxicillin.
B. Carbamazepine.
C. Acetaminophen and codeine.
D. Ibuprofen.

Which of the following is most likely to affect the difficulty of extraction of an impacted mandibular third molar?

A. Root width.
B. Shape of the crown.
C. Size of the pulp chamber.
D. Angulation of the impaction.

The most reliable diagnostic sign of gingival inflammation is

A. retractability.
B. edema.
C. bleeding.
D. cratering.
E. altered texture.

Enamel pearls form when

A. ameloblasts migrate apically down the root.
B. cells of the epithelial root sheath do not migrate away from the dentin.
C. cells of the dental follicle fail to develop.
D. epithelial rests transform into ameloblast vesicles.

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During the intravenous administration of diazepam, which of the following arteries may accidentally be entered in the antecubital fossa?

A. Ulnar.
B. Radial.
C. Brachial.
D. Deep brachial.
E. Radial recurrent.

The interocclusal distance (freeway space)

A. is the difference between occlusal vertical dimension and hinge axis registration.
B. is the difference between occlusal vertical dimension and rest vertical dimension.
C. is usually 10mm in the premolar region.
D. is the distance between centric occlusion and centric relation.

Local anesthetics interfere with the transport of which of the following ions?

A. Sodium.
B. Calcium.
C. Chloride.
D. Potassium.
E. Magnesium.

Which of the following is NOT a property of Lidocaine (Xylocaine®)

A. local anesthetic.
B. topical anesthetic.
C. anticonvulsant.
D. antiarrhythmic agent.

In primary molars, radiographic bony changes from an infection are initially seen

A. at the apices.
B. in the furcation area.
C. at the alveolar crest.
D. at the base of the developing tooth.

Which is the LEAST common type of adverse reaction associated with the use of latex gloves?

A. Immediate type I allergic reaction.
B. Delayed hypersensitivity.
C. Type IV immunologic reaction.
D. Irritant contact dermatitis.

Endodontic therapy is CONTRAINDI CATED in teeth with

A. inadequate periodontal support.
B. pulp stones.
C. constricted root canals.
D. accessory canals.
E. curved roots.

A patient has a smooth, red, protruding lesion at the tip of the tongue. Microscopic examination reveals a stratified squamous epithelium covering loose, fibrous connective tissue with many thin-walled, vascular spaces. The diagnosis is

A. fibroma.
B. papilloma.
C. hemangioma.
D. pleomorphic adenoma.
E. granular cell tumor (myoblastoma).

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Chronic alcoholism will

1. cause impairment of liver function.
2. increase tendency to hemorrhage.
3. delay healing.
4. decrease the effectiveness of local anesthetics.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Acute or subacute suppurative osteomyelitis occurs most frequently in the

A. anterior maxilla.
B. posterior mandible.
C. posterior maxilla.
D. anterior mandible.

Severe throbbing tooth pain which increases when the patient lies down is a symptom of

A. a pulp polyp (chronic hyperplastic pulpitis).
B. late stage of acute pulpitis (acute suppurative pulpitis).
C. chronic pulpitis (chronic ulcerative pulpitis).
D. chronic apical abscess.
E. pulp hyperemia.

An alveoplasty is performed to

1. facilitate removal of teeth.
2. correct irregularities of alveolar ridges following tooth removal.
3. prepare the residual ridge for dentures.

A. (1) and (2)
B. (1) and (3)
C. (2) and (3)
D. All of the above.

In patients wearing complete dentures, the most frequent cause of tooth contact (clicking) during speaking is

A. nervous tension.
B. incorrect centric relation position.
C. excessive occlusal vertical dimension.
D. lack of vertical overlap.
E. unbalanced occlusion.

Overlapping contacts on a bitewing radiograph result from

1. malalignment of teeth.
2. incorrect vertical angulation of the x-ray beam.
3. incorrect horizontal angulation of the x-ray beam.
4. patient movement during the exposure.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Hyperplastic lingual tonsils may resemble which of the following?

A. Epulis fissuratum.
B. Lingual varicosities.
C. Squamous cell carcinoma.
D. Median rhomboid glossitis.
E. Prominent fungiform papillae.

Which drug is indicated for the management of an acute asthmatic attack

A. Flucticasone (Flonase ®).
B. Salbutamol.
C. Triamcinolone.
D. Budesonide.

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In Canada, it is ethical for a dentist to refuse to treat a patient on the basis of the

A. patient’s religious beliefs.
B. patient’s physical handicap.
C. patient’s infectious disease status.
D. complexity of the required treatment.

The mode of action of the sulfonamides upon susceptible bacteria is by

A. inhibiting the biosynthesis of p-aminobenzoic acid.
B. competing for nutrients in the tissue environment of the microorganisms.
C. interfering with the synthesis of cell wall protein.
D. interfering with the synthesis of folic acid.

Nystatin is the drug of choice for

A. aphthous stomatitis.
B. candidiasis.
C. periradicular abscess.
D. necrotizing ulcerative gingivitis (NUG).

Which of the following is most often associated with a non-vital tooth?

A. Periapical cyst.
B. Internal resorption.
C. Periapical cementoma.
D. Hyperplastic pulpitis.

Residual root tips will not be visible on panoramic radiographs of a completely edentulous patient if

A. they are not close enough to the focal trough of the machine.
B. the patient is wearing dentures when the image is produced.
C. a digital panoramic machine is used.
D. the patient moves during production of the image.

Which maxillary central incisor characteristic is the most limiting in the construction of a Class II functional appliance?

A. Retroclination.
B. Proclination.
C. Overeruption.
D. Undereruption.

In composite resin restorations, polycarboxylate cements are used as a base because they are

A. sedative to a hyperemic pulp.
B. neutral in colour.
C. biocompatible.
D. None of the above.

Ludwig’s angina may cause death by

A. heart failure.
B. asphyxia.
C. convulsions.
D. paralysis of muscles of respiration.
E. pyemia.

The Plaque Index of Silness and Loe measures

A. quantity of plaque at the gingival margin.
B. colony forming units of Gram-negative bacteria.
C. weight of plaque obtained from facial surfaces.

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Which of the following bacterial types is implicated in the initiation of gingivitis?

A. Streptococcus salivarius.
B. Streptococcus mutans.
C. Leptothrix buccalis.
D. Actinomyces viscosus.

Voids in a gypsum cast are most likely the result of

A. low surface tension of a silicone impression material.
B. high surface tension of an irreversible hydrocolloid.
C. using a hydrophilized addition silicone.
D. spraying a surfactant on the impression.

Crusted hemorrhagic and ulcerative lesions of the lips in a patient with target-like skin lesions are typical of

A. lupus erythematosus.
B. Reiter’s syndrome.
C. Behçet’s syndrome.
D. erythema multiforme.
E. pemphigus vulgaris.

The preparation of an anterior tooth for a metal-ceramic crown should provide

1. adequate length for retention and resistance form.
2. space for thickness of metal that will resist deformation.
3. space for thickness of porcelain.
4. a single path of insertion.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A smooth surface coronal white spot carious lesion that is visible when the tooth is both wet and dry indicates that the

A. lesion is less than halfway through the enamel.
B. enamel is stained and not demineralized.
C. lesion is more than halfway through the enamel.
D. caries involves the inner half of the dentin.

The dentino-enamel junction is the most sensitive portion of a tooth because

A. free nerve endings terminate on odontoblasts at this region.
B. odontoblastic processes branch considerably at this region.
C. ameloblasts make synaptic connections with odontoblasts at this junction.
D. odontoblastic tubules help convey hydrostatic forces to the pulp cells.

Ankylosis of primary teeth is most frequently observed in

A. maxillary molars.
B. mandibular molars.
C. maxillary canines.
D. mandibular incisors.
Clinical examination of a 15 year old girl shows permanent central incisors, permanent canines and primary canines all in contact and anterior to the premolars. The most likely cause is

A. ankylosed permanent canines.
B. ankylosed primary canines.
C. impacted permanent lateral incisors.
D. congenitally missing permanent lateral incisors.

A 9 year old boy presents for treatment immediately following a facial injury resulting in a fracture of a maxillary central incisor that involves the enamel only. The tooth tests negative to an electric pulp tester. This finding indicates that the tooth

A. is nonvital and should be extracted.
B. is nonvital and endodontic therapy is indicated.
C. has a root fracture and should be extracted.
D. should be observed and tested again at a later date.

Enamel pearls form when

A. ameloblasts migrate apically down the root.
B. cells of the epithelial root sheath do not migrate away from the dentin.
C. cells of the dental follicle fail to develop.
D. epithelial rests transform into ameloblast vesicles.

Which of the following is most likely to be a squamous cell carcinoma?

A. Sore shallow ulcer, present for a few days.
B. Burning red plaque, present for several weeks.
C. Asymptomatic gray macule, present for several months.
D. Occasionally tender normal coloured nodule, present for several years.

Which drug is indicated as part of the management for a codeine overdose?

A. Atropine.
B. Diphenhydramine.
C. Epinephrine.
D. Flumazenil.
E. Naloxone.

Which of the following cements can chemically bond to enamel?

1. Zinc phosphate cement.
2. Polycarboxylate cement.
3. Ethoxy benzoic acid cement.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Increased radiographic density is caused by

A. decreased mA.
B. decreased kVp.
C. decreased target-object distance.
D. increased object-film distance.

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In dental radiography, the most effective method of reducing patient somatic exposure is to use

A. a lead apron.
B. high speed film.
C. added filtration.
D. collimation.

On a semi-adjustable articulator, the incisal guidance is the mechanical analogue of

A. horizontal guidance.
B. the curve of Monson.
C. the curve of Spee.
D. horizontal and vertical overlap.

A large pericoronal radiolucency associated with an impacted third molar tooth is most likely a/an

A. ameloblastoma.
B. traumatic bone cyst.
C. eruption cyst.
D. dentigerous cyst.
E. calcifying odontogenic cyst.

The primary etiological factor for the development of root caries is

A. gingival recession.
B. acquired xerostomia.
C. poor oral hygiene.
D. cigarette smoking.

Radiographically, the nasopalatine foramen may be misdiagnosed as a

1. branchial cyst.
2. nasopalatine cyst.
3. nasolabial cyst.
4. radicular cyst.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The most frequent cause of malocclusion is

A. thumbsucking.
B. mouth breathing.
C. heredity.
D. ectopic eruption.

Which of the following would NOT be expected to cause hypokalemia?

A. Metabolic acidosis.
B. Lactate accumulation.
C. Increased plasma insulin.
D. Excess aldosterone secretion.
E. Beta-adrenergic stimulation of cells.

The principal reason for a needle aspiration biopsy of an intraosseous radiolucent lesion of the mandible is to

A. obtain a specimen for histopathological analysis.
B. determine the presence of a vascular lesion.
C. decompress a fluid-filled lesion.
D. drain purulent material.

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Which of the following pharmacokinetic change(s) occur(s) with aging?

1. Absorption is altered by a decrease in the gastric pH.
2. Metabolism is decreased by a reduced liver mass.
3. Distribution is altered by a decrease in total body fat.
4. Excretion is reduced because of lessened renal blood flow.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The risk of a health care worker contracting hepatitis B through a needlestick injury from a chronic hepatitis B carrier is increased when the patient’s serology report indicates the presence of

A. HBsAg.
B. anti-HBcAg.
C. HBeAg.
D. anti-HBsAg.

Which of the following is NOT a characteristic of an acute periradicular abscess?

A. Pain on percussion.
B. Tooth feels elongated.
C. Pain to a cold stimulus.
D. Pain on palpation.

Bitewing radiographs are most valuable for detecting

A. hyperemia of the pulp.
B. occlusal carious lesions.
C. proximal surface caries.
D. cervical caries.

The most common benign tumour of the salivary glands is a/an

A. Warthin’s tumour.
B. pleomorphic adenoma.
C. canalicular adenoma.
D. mucocele.

Focal periapical osteopetrosis (dense bone island) differs from focal sclerosing osteomyelitis in that it is

A. expansile.
B. periapical.
C. radiopaque.
D. caused by pulpitis.

Infections transmitted in dental offices have been documented

A. at a rate comparable to health care associated infections in hospitals.
B. occasionally, primarily with hepatitis B.
C. with equal frequency for viruses and bacteria.
D. primarily in offices, which do not control bacterial levels in water from dental units.

Which of the following is the hardest?

A. Amalgam.
B. Enamel.
C. Composite resin.
D. Silicate cement.
E. Type IV gold alloy.

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Clinical management of gingival enlargement caused by Phenyltoin (Dilantin®) therapy includes

A. the use of analgesics to control pain.
B. withdrawal of the medication.
C. extraction of the teeth.
D. gingivectomy and maintenance of good oral hygiene.
E. a mouth guard to control mouth breathing.

A patient, when in full intercuspation, shows a right side posterior crossbite and a lower midline that is deviated to the right. At initial contact there are bilateral posterior crossbites and coincident midlines. The most likely cause of this finding is

A. severe temporomandibular dysfunction.
B. two ideal occlusions.
C. true unilateral crossbite.
D. occlusal interference and functional shift.

The mechanism of adjustment to maintain the shape and proportions of bone throughout its growth period is called

A. remodeling.
B. cortical drift.
C. area relocation.
D. translatory growth.

Dental implants are CONTRAINDICATED in patients who

1. are over age 80.
2. have unrepaired cleft palates.
3. are taking anticoagulants.
4. have uncontrolled diabetes mellitus.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Juvenile periodontitis

A. is associated with gram-negative anaerobic flora.
B. is associated with gram-positive anaerobic flora.
C. is associated with root caries.
D. has a definite predilection toward males.

World epidemiological data indicates that periodontal disease is the most likely cause of tooth loss in the following age group:

A. 10 - 20 years.
B. 20 - 30 years.
C. 30 - 50 years.
D. 65 - 75 years.
E. over 75 years.

Which of the following is most radiopaque?

A. Calcifying odontogenic cyst.
B. Fibrous dysplasia of bone.
C. Ameloblastoma.
D. Complex composite odontoma.

Ankylosis of the primary central incisors in the maxilla is mainly related to

A. trauma.
B. thumbsucking.
C. chronic gingivitis.
D. delayed eruption of the permanent teeth.

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A shift from bilateral crossbite with coincident midlines to a right-sided posterior crossbite with non-coincident midlines most likely indicates

A. severe temporomandibular dysfunction.
B. a true unilateral crossbite.
C. occlusal interference and functional shift.

When probing a healthy gingival sulcus with a 20g force, the tip of the periodontal probe is most likely located

A. coronal to the junctional epithelium.
B. at the level of the junctional epithelium.
C. apical to the junctional epithelium.

Which of the following is appropriate for pain management for an adult with a history of severe asthma and nasal polyps?

A. Acetaminophen 1,000 mg, every 4-6 hours prn.
B. Naproxen 250 mg, every 6-8 hours prn.
C. Acetylsalicylic acid 650 mg, every 4-6 hours prn.
D. Ketorolac 10 mg, every 4-6 hours prn.

The oral mucosal lesions of lichen planus, leukoplakia, hyperkeratosis and discoid lupus erythematosus have at least one common feature. They are

A. premalignant.
B. hyperkeratotic.
C. due to chronic infection.
D. granulomatous proliferations.
E. associated with drug use.

Which procedure(s) require(s) antibiotic prophylaxis in a patient susceptible to bacterial endocarditis?

1. Impressions for partial dentures.
2. Suture removal.
3. Mandibular block anesthetic injection.
4. Periodontal surgery.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.
Oral signs and/or symptoms of vitamin B₂ (riboflavin) deficiency may include

1. glossitis.
2. angular cheilitis.
3. pain.
4. erythematous oral mucosa.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The muscle of the floor of the mouth in the molar region which requires special attention in the final mandibular denture impression is the

A. genioglossus.
B. geniohyoid.
C. mylohyoid.
D. hyoglossus.

A 22 year old patient has been experiencing general malaise, fever, sore throat and coughing for one week. There are multiple ulcerations of the oral mucosa, crusting of the lips and red circular lesions on the palms of the hands. The most likely diagnosis is

A. gonorrhea.
B. infectious mononucleosis.
C. acute herpetic gingivostomatitis.
D. AIDS.
E. erythema multiforme.
The usual adult dosage of codeine administered orally is

A. 500-1000mg.
B. 250-500mg.
C. 30-60mg.
D. 2-5mg.
E. None of the above.

A patient who is 4 months pregnant requires an extraction. A radiograph may

A. be taken only if difficulty is encountered during surgery.
B. be taken.
C. not be taken.
D. be taken by panoramic radiography only.

A skeletal cross-bite always results from a discrepancy in

A. eruption patterns.
B. mandibular and maxillary bone structure.
C. tongue position (low posture).
D. functional centric.
E. facial musculature patterns.

Inlay wax patterns should be invested as soon as possible in order to decrease distortion caused by

A. reduced flow.
B. drying-out of the wax.
C. release of internal stress.
D. continued expansion of the wax.

Which of the following systemic diseases does/do NOT predispose a patient to periodontitis?

1. Cyclic neutropenia.
2. Diabetes mellitus.
3. Acquired immunodeficiency syndrome.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A draining fistula of short duration related to a tooth undergoing endodontic therapy requires

A. irrigation of canals.
B. antibiotics.
C. surgical excision.
D. no special treatment.

In a healthy patient whose chief complaint is bleeding gums after tooth brushing, what is the most appropriate initial management?

A. Elimination of local plaque retention sites.
B. Dietary analysis.
C. Periodontal examination and recording.
D. Occlusal examination and recording.

A mucocele results from

A. aplasia of the duct.
B. hyperplasia of the duct.
C. damage to the duct.
D. hypersecretion.

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The advantage of a posterior composite resin restoration when compared to amalgam is an immediate reduction in

A. marginal leakage.
B. post-operative sensitivity.
C. technique sensitivity.
D. caries risk for patients with poor oral hygiene.

Which of the following require prophylactic antibiotics prior to dental procedures causing a bacteremia?

A. Implanted cardiac pacemakers.
B. Prosthetic cardiac valves.
C. Coronary artery bypass grafts.
D. Cardiac stents one year after placement.

The location and extent of subgingival calculus is most accurately determined clinically by

A. radiopaque solution used in conjunction with radiographs.
B. disclosing solution.
C. probing with a fine instrument.
D. visual inspection.

Which has the WORST prognosis?

A. Occlusal traumatism.
B. Gingivitis.
C. Aggressive periodontitis.
D. Periodontal atrophy.
E. Chronic periodontitis.

A metal in the wrought condition differs from the same metal in the cast condition in that

1. the grains are deformed and elongated.
2. the yield strength and hardness are increased.
3. the resistance to corrosion is decreased.
4. if heated sufficiently, recrystallization can occur.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A 6 year old patient has a larger than average diastema between the maxillary central incisors. The radiographic examination shows a mesiodens. In order to manage the diastema, you should extract the mesiodens

A. after its complete eruption.
B. once the patient has reached the age of 12.
C. only if it develops into a cystic lesion.
D. as soon as possible.

In which of the following situations can topical corticosteroids be used?

A. Angular cheilitis.
B. Candidiasis.
C. Herpes labialis.
D. Erosive lichen planus.
E. Necrotizing ulcerative gingivitis.

If an alginate impression must be stored for a few minutes before the cast is poured, it should be placed in

A. water.
B. 100% relative humidity.
C. a 1% aqueous calcium sulfate solution.

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A patient presents with a chronic, purulent draining fistula in the right submandibular area. Culture results are inconclusive but actinomycosis is suspected. Which of the following intravenous antibiotics is most appropriate for the management of the condition?

A. Sulfonamide.
B. Aminoglycoside.
C. Cephalosporin.
D. Erythromycin.
E. Penicillin.

A smooth, elevated, red patch devoid of filiform papillae, located in the midline of the dorsum of the tongue immediately anterior to the circumvallate papillae is indicative of

A. benign migratory glossitis.
B. median rhomboid glossitis.
C. a granular cell tumor.
D. iron deficiency anemia.
E. a fibroma.

Ankylosis is commonly

A. associated with a non-vital pulp.
B. the result of a root fracture.
C. associated with a root penetrating cavity.
D. resulting in a submerged tooth, out of occlusion.
E. found in permanent teeth.

A 70 year old insulin-dependent patient has just completed a 7 day course of ampicillin for a respiratory infection. He presents with signs and symptoms consistent with a diagnosis of oral candidiasis. Which of the following is the most appropriate management for this patient?

A. Double the patient’s insulin dose.
B. Reduce the patient’s insulin dose.
C. Prescribe a topical steroid.
D. Prescribe clindamycin.
E. Prescribe nystatin.

The purpose of relining a distal saddle of a removable partial denture is to improve

1. tissue adaptation.
2. occlusion.
3. function.
4. fit of the framework.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.
In X-ray equipment, kilovoltage controls

1. contrast.
2. speed of electrons.
3. amount of radiation produced.
4. penetrating power of radiation.
5. temperature of the cathode filament.

A. (1) and (2)
B. (1) (2) (4)
C. (1) (3) (5)
D. (1) and (4)

Immediately following a posterior superior alveolar block injection, the patient's face becomes quickly and visibly swollen. The immediate treatment should be to

A. use pressure followed by cold packs over the swelling.
B. use hot packs over the swelling.
C. refer the patient to a hospital.
D. administer 100mg hydrocortisone intravenously.
E. administer diphenhydramine hydrochloride (Benadryl®) 50mg intravenously.

Using pins to retain amalgam restorations increases the risk of

1. cracks in the teeth.
2. pulp exposures.
3. thermal sensitivity.
4. periodontal ligament invasion.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Glass ionomer cement restorations are indicated for

A. root caries.
B. incisal edge fractures.
C. Class II lesions in adults.
D. locations where esthetics are important.

All of the following appear as midline structures on periapical radiographs EXCEPT

A. nasopalatine/incisive canal.
B. anterior nasal spine.
C. nasal septum.
D. zygomatic process of the maxilla.

Upon setting, a mixture of plaster of Paris and water will exhibit

A. loss in compressive strength.
B. expansion.
C. gain in moisture content.
D. contraction.

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An early radiographic sign of chronic periodontitis is
A. widening of vascular canals.
B. "notching" of the crestal lamina dura.
C. enlargement of the interdental medullary spaces.
D. decreased radiolucency of the interdental trabeculae.

Which of the following drugs should NOT be administered to a patient in order to alleviate symptoms of an acute asthmatic attack?
A. Isoproterenol.
B. Metaproterenol.
C. Epinephrine.
D. Hydrocortisone.

Generalized redness and atrophy of the tongue are most often associated with
A. lichen planus.
B. burning mouth syndrome.
C. endocrinopathy.
D. nutritional deficiency.

In the surgical removal of an impacted mandibular third molar, which of the following would be considered to be the most difficult?
A. Mesio-angular.
B. Horizontal.
C. Vertical.
D. Disto-angular.

A fracture in an all-ceramic crown may be caused by
1. inadequate ceramic thickness.
2. sharp line angles in the tooth preparation.
3. excessive occlusal load.
4. use of an inappropriate luting material.

Probing depth reduction following scaling and root planing alone will occur if the patient's periodontal condition includes
A. hyperemic and edematous gingival tissue.
B. gingival hyperplasia due to phenytoin therapy.
C. chronic periodontal pockets.
D. necrotizing ulcerative gingivitis.

A healthy 66 year old patient who had a myocardial infarct eight years ago requires an extraction. The most appropriate management is to
A. admit the patient to hospital for extraction with local anesthesia.
B. admit the patient to hospital for extraction with general anesthesia.
C. extract the tooth in the office using preoperative sedation and local anesthetic without a vasoconstrictor.
D. treat the patient in the office as a normal patient.

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An ankylosed tooth is usually

A. nonvital.
B. associated with a root fracture.
C. infraerupted.
D. found in the permanent dentition.

Which of the following is the most common site in the oral cavity for a squamous cell carcinoma?

A. Floor of the mouth.
B. Buccal mucosa.
C. Palate.
D. Gingiva.

The occlusal cavosurface margin for a Class I amalgam restoration should be

A. beveled.
B. 90°.
C. chamfered.
D. acute.

High copper amalgam alloys are superior to conventional alloys in that they have

1. lower creep.
2. less corrosion.
3. less marginal breakdown.
4. higher 1 hour compressive strength.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The clinical appearance and texture of an early carcinoma of the floor of the mouth could be

A. red and soft.
B. white and rough.
C. ulcerated and indurated.
D. All of the above.
E. None of the above.

Clinically, the progression of periodontitis can be determined best by the increasing

A. number of bleeding sites on probing.
B. severity of gingival inflammation.
C. depth of periodontal probing.
D. clinical attachment loss.

Which of the following conditions is most likely to be associated with a draining fistula?

A. Chronic periapical periodontitis.
B. Reversible pulpitis.
C. Hypercementosis.
D. Traumatic bone cyst.

What is the most appropriate appliance to correct an Angle Class I malocclusion with a labially tipped maxillary central incisor and spacing in a 15 year old patient?

A. Growth modification appliance.
B. Hawley with an active labial bow.
C. Molar distalizing appliance.
D. Bilateral expansion appliance.

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Alteration of the intestinal flora by some chemotherapeutic agents can interfere with reabsorption of a contraceptive steroid thus preventing the recirculation of the drug through the enterohepatic circulation. Which of the following can interfere with this mechanism?

1. Codeine.
2. Penicillin V.
3. Acetaminophen.
4. Tetracycline.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

In health, the crest of the alveolar bone, as seen in a radiograph, is situated 1–to–2mm apical to the cemento-enamel junction. Radiographically, the normal alveolar crest should parallel an imaginary line drawn between the cemento-enamel junction of adjacent teeth.

A. The first statement is true, the second is false.
B. The first statement is false, the second is true.
C. Both statements are true.
D. Both statements are false.

A Bolton relationship has determined a

- maxillary “12” excess of 3.5mm
- maxillary “6” excess of 3.0mm

What effect(s) could this Bolton relationship have on a Class I malocclusion?

1. Deeper overbite.
2. Maxillary crowding.
3. Reduced overjet.
4. Increased overjet.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Lancinating paroxysmal pain in the posterior part of the tongue, tonsil, nasopharynx and pharynx is most likely diagnostic of

A. Ménière's disease.
B. trigeminal neuralgia.
C. sphenopalatine neuralgia.
D. glossopharyngeal neuralgia.
E. psychotic glosso pyrosis.

In Angle's classification, a Class II, division 1 malocclusion may describe a combination of skeletal problems, such as

1. maxillary protrusion, normal mandibular position.
2. normal maxillary position, mandibular retrusion.
3. maxillary protrusion, mandibular retrusion.
4. bimaxillary protrusion, with the maxilla more protrusive than the mandible.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

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Benign neoplasms

1. grow slowly.
2. are generally painless.
3. can be managed conservatively.
4. can metastasize.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Which one of the following describes the position of the needle tip during administration of local anesthetic for the inferior alveolar nerve block?

A. Anterior to the pterygomandibular raphe.
B. Medial to the medial pterygoid muscle.
C. Superior to the lateral pterygoid muscle.
D. Lateral to the sphenomandibular ligament.

A 3 year old complains of a sore left arm for 10 days. A physician has diagnosed a fracture and a radiograph reveals an old fracture. The most appropriate diagnosis is

A. infantile osteoporosis.
B. osteogenesis imperfecta.
C. battered child syndrome.
D. Münchhausen syndrome.

Which of the following is/are part of optimal post preparation procedure?

1. Use of non-end cutting rotary instruments.
2. Minimal canal enlargement.
4. Diameter of the post that is ½ root width or more.

A. (1) and (3)
B. (2) and 4)
C. (1) (2) (3)
D. (4) only
E. All of the above.

For composite resin preparations, cavo surface enamel margins are bevelled because

1. a bevelled margin produces a more favorable surface for etching.
2. a bevelled margin improves the edge strength of the composite resin.
3. after etching, the bonding agent reduces microleakage.
4. the procedure eliminates the need to polish the restoration.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The coefficient of thermal expansion of the metal relative to the porcelain for constructing a metal-ceramic crown should be

A. slightly less.
B. the same.
C. slightly more.
D. significantly less.

The most common clinical characteristic(s) of a functional crossbite is/are

A. mandibular shift from initial contact to maximum intercuspation with midline deviation.
B. asymmetrical arches.
C. several missing teeth.

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The most important diagnostic element in assessing the periodontal status of a patient is the
A. results of vitality testing.
B. radiographic appearance.
C. depth of periodontal pockets.
D. mobility of the teeth.

Which of the following best describes drug synergism?
A. The effect of the combination of two drugs is equal to the sum of their individual effects.
B. The effect of the combination of two drugs is greater than the sum of their individual effects.
C. The effect of the combination of two drugs is less than the sum of their individual effects.
D. One drug’s action blocks the effect of the second drug’s action.

Generally, glass ionomer cements contain
A. zinc oxide and distilled water.
B. zinc oxide and polyacrylic acid.
C. fluoroaluminosilicate powder and orthophosphoric acid.
D. fluoroaluminosilicate powder and polyacrylic acid.

Following the IV administration of a benzodiazepine, a patient becomes apneic and unresponsive. Which of the following drugs should be administered immediately?
A. Naloxone.
B. Propranolol.
C. Amphetamine.
D. Flumazenil.
E. Atropine.

The best way to protect the abutments of a Class I removable partial denture from the negative effects of the additional load applied to them is by
A. splinting abutments with adjacent teeth.
B. keeping a light occlusion on the distal extensions.
C. placing distal rests on distal abutments.
D. using cast clasps on distal abutments.
E. regular relining of the distal extensions.

Which of the following is most likely to have its effect reduced in a patient with genetic polymorphism of CYP2D6?
A. Acetaminophen.
B. Amoxicillin.
C. Clindamycin.
D. Codeine.
E. Ibuprofen.

Special attention is given to matrix adaptation for the insertion of amalgam in a MO cavity in a maxillary first premolar because of the
A. concavity in the cervical third of the mesial surface of the crown.
B. restoration being in the esthetic zone.
C. unusual position of the contact area.
D. buccolingual width of the tooth's mesial marginal ridge.
E. size of the interproximal gingival embrasure.

The cell of the dental pulp most capable of transforming into other cells is the
A. fibroblast.
B. mesenchymal cell.
C. odontoblast.
D. histiocyte.

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Zinc oxide eugenol cement is a/an
A. phosphate cement.
B. phenolic cement.
C. resin modified glass ionomer cement.
D. polyalkenoic acid cement.
E. adhesive resin cement.

A removable orthodontic appliance, producing a light force on the labial of a proclined maxillary central incisor will cause
A. lingual movement of the crown and lingual movement of the root apex.
B. intrusion of the central incisor and lingual movement of the crown.
C. lingual movement of the crown and labial movement of the root apex.
D. intrusion of the central incisor.

Composite resin is a satisfactory core material for endodontically treated teeth provided
A. the resin has a high contrast colour with tooth structure.
B. there is an adequate ferrule.
C. the resin is autopolymerizing.
D. subsequent crown margins are not located on cementum.

The objective of scaling and root planing during periodontal therapy is to remove
A. plaque, calculus, contaminated cementum and junctional epithelium.
B. plaque and calculus exclusively.
C. plaque, calculus and crevicular epithelium.
D. plaque, calculus and contaminated cementum.
E. all cementum associated with periodontitis.

A patient wearing complete dentures complains of tingling and numbness in the lower lip bilaterally. This is often an indication of
A. allergy to denture base material.
B. impingement of denture on the mandibular nerve.
C. defective occlusal contacts.
D. impingement of denture on the mental nerve.
E. neoplastic invasion of the inferior mandibular nerve.

Early orthodontic treatment of a retrognathic mandible should occur
A. before age 5.
B. between the ages of 6 and 8.
C. just prior to the pubertal growth spurt.
D. after skeletal maturity.

An ankylosed deciduous molar can cause
1. delayed eruption of the underlying premolar.
2. reduction of arch length.
3. difficulty with extraction.
4. reduction in alveolar bone.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

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Which of the following is/are side effects of rapid maxillary expansion?

1. increase in the vertical dimension.
2. mesial movement of the maxilla.
3. increase in the maxillary inter-molar width.
4. increase in the mandibular inter-molar width.

A. (1) (2) (3)  
B. (1) and (3)  
C. (2) and (4)  
D. (4) only.  
E. All of the above.

The maxilla is formed from

A. bundle bone.  
B. endochondral bone.  
C. membranous bone.  
D. lamellar bone.

A 7 year old patient is missing tooth 5.5 and tooth 7.5. Space maintainers were not placed. A current mixed dentition analysis yields the following data:

<table>
<thead>
<tr>
<th>R</th>
<th>L</th>
</tr>
</thead>
<tbody>
<tr>
<td>-5mm</td>
<td>-3mm</td>
</tr>
<tr>
<td>-3mm</td>
<td>-4.5mm</td>
</tr>
</tbody>
</table>

The actual space loss is

A. 8mm in the maxilla.  
B. 2mm in the maxilla.  
C. 7.5mm in the mandible.  
D. 4.5mm in the mandible.

Which one of the following cements is anticariogenic because of fluoride ion release?

A. Resin.  
B. Polycarboxylate.  
C. Zinc phosphate.  
D. Glass ionomer.

After the cementation of a crown, chronic gingivitis would most likely be the result of a/an

A. subgingival finish line.  
B. supragingival finish line.  
C. undercontoured crown.  
D. overcontoured crown.

Generalized malaise and elevated body temperature may be associated with

A. periradicular granuloma.  
B. acute dentoalveolar abscess.  
C. acute suppurative pulpitis.  
D. chronic ulcerative pulpitis.

The X-rays which are most apt to be absorbed by the skin and cause an injury are

A. central rays.  
B. deep penetrating rays.  
C. aluminum filtered rays.  
D. rays of long wave-length.

In a patient with liver disease, a possible complication is

A. syncope or shock.  
B. postoperative infection.  
C. prolonged bleeding.  
D. allergic reaction to the anesthetic solution.

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A periapical radiolucency associated with a vital maxillary central incisor can represent

1. a nasopalatine cyst.
2. a dentigerous cyst.
3. the foramen of the incisive canal.
4. a periapical granuloma.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The principal growth sites of the maxilla in a downward and forward direction include the

1. frontomaxillary suture.
2. zygomaticomaxillary suture.
3. pterygopalatine suture.
4. median palatine suture.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only.
E. All of the above.

The inherited defect of teeth that may be associated with osteogenesis imperfecta is

A. amelogenesis imperfecta.
B. dentin dysplasia.
C. dentinogenesis imperfecta.
D. taurodontism.
E. regional odontodysplasia.

The best way to correct a deep curve of Spee in an adult patient WITHOUT opening the vertical dimension is to

A. use a removable anterior bite plane.
B. use a fixed anterior bite plane.
C. extrude the posterior teeth.
D. intrude the anterior teeth.
E. use a removable posterior bite plane.

In fixed bridge construction, where the vertical dimension has to be increased, the most important consideration should be that

A. there is sufficient tooth bulk in the abutment teeth for crown retention.
B. the interocclusal distance will be physiologically acceptable.
C. the aesthetic appearance of the patient will be improved.
D. a favorable crown-root ratio is established.

The most appropriate treatment of chronic sclerosing osteomyelitis of the mandible includes

1. intravenous antibiotics followed by long term oral antibiotics.
2. hyperbaric oxygen.
3. decortication.
4. radiotherapy.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

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Which is the best initial treatment for a 16 year old patient presenting with multiple extensive carious lesions on 20 teeth?

A. Place amalgam restorations as quickly as possible.  
B. Excavate and place provisional restorations.  
C. Place the patient on a preventive regime and delay any treatment.  
D. Restore all teeth with gold inlays to utilize the strength of the material.

A 22 year old presents with a fracture of the incisal third of tooth 2.1 exposing a small amount of dentin. The fracture occurred one hour previously. There is no mobility of the tooth but the patient complains that it is rough and sensitive to cold. The most appropriate emergency treatment is to

A. open the pulp chamber, clean the canal and temporarily close with zinc oxide and eugenol.  
B. smooth the surrounding enamel and apply glass ionomer cement.  
C. smooth the surrounding enamel and apply a calcium hydroxide cement.  
D. place a provisional (temporary) crown.

Hypoglycemia is characterized by

1. mental confusion.  
2. tachycardia.  
3. sweating.  
4. nausea.

A. (1) (2) (3)  
B. (1) and (3)  
C. (2) and (4)  
D. (4) only  
E. All of the above.

Which of the following patients should be referred to orthodontically close a maxillary midline diastema?

1. An 8 year old with no abnormal oral habits.  
2. A 14 year old with no abnormal oral habits.  
3. A 3 year old with a 4mm overjet.  
4. An 8 year old with a previous thumb habit.

A. (1) (2) (3)  
B. (1) and (3)  
C. (2) and (4)  
D. (4) only  
E. All of the above.

The minimum time to wait before placing composite restorations after the completion of a bleaching (whitening) treatment is

A. 1 to 2 hours.  
B. 24 to 48 hours.  
C. 1 to 2 weeks.  
D. 4 to 5 weeks.  

Minor tooth movement to correct an inclined fixed partial denture abutment will

1. enhance resistance form of the abutment.  
2. reduce the possibility of pulpal exposure.  
3. direct occlusal forces along the long axis of the tooth.  
4. improve embrasure form.

A. (1) (2) (3)  
B. (1) and (3)  
C. (2) and (4)  
D. (4) only  
E. All the above.
During extraction of a maxillary third molar, the tuberosity is fractured. The tooth with the tuberosity remains attached to the surrounding soft tissue. You should

A. remove both and suture.
B. leave both and stabilize, if possible.
C. remove both, fill the defect with Gelfoam and suture.
D. reflect the mucoperiosteum, remove the tooth, leaving the tuberosity in place and suture.

What is the earliest age that the diagnosis of a congenitally missing mandibular second bicuspid can be confirmed?

A. 2 years.
B. 4 years.
C. 6 years.
D. 8 years.

The gingival aspect of a pontic which touches the alveolar ridge should be

A. convex only in the mesiodistal direction.
B. concave faciolingually and convex mesiodistally.
C. small and convex in all directions.
D. fabricated to produce slight tissue compression.

A patient with a tumor in the right infratemporal fossa shows a significant shift of the mandible to the right when opening. Which nerve is involved?

A. Facial nerve VII.
B. Glossopharyngeal nerve IX.
C. Trigeminal nerve V.
D. Hypoglossal nerve XII.

Wolff’s Law states that bone elements

A. rearrange themselves in the direction of functional pressures.
B. increase their mass to reflect functional stress.
C. decrease their mass to reflect functional stress.
D. All of the above.

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A clinical finding common to alcoholism, poorly-controlled diabetes mellitus, uremia and liver disease is

A. a smooth tongue.
B. increased blood pressure.
C. a coated tongue.
D. labial fissures.
E. halitosis.

Which of the following statements is/are true when using forceps for extraction of a maxillary first molar?

1. Palatal bone is thinner than buccal bone.
2. Buccal bone is easier to expand.
3. Forceps movement should be principally in the palatal direction.
4. Forceps movement should be principally in the buccal direction.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Regular use of oral irrigators (e.g. "Water Pik") will

A. prevent plaque formation.
B. remove plaque.
C. remove calculus.
D. remove debris.
E. prevent bacteremia.

A periapical granuloma is

1. radiolucent.
2. painless.
3. neoplastic.
4. inflammatory.

A. (1) and (3)
B. (1) (2) (4)
C. (3) and (4)
D. All of the above.

Which of the following medications can be taken by a patient who has been prescribed lithium?

A. Acetaminophen.
B. Flurbiprofen.
C. Ibuprofen.
D. Naproxen.

The Frankfort-horizontal is a reference plane constructed by joining which of the following landmarks?

A. Porion and sella.
B. Porion and nasion.
C. Porion and orbitale.
D. Nasion and sella.

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A circumscribed radiolucent lesion associated with a retained root tip should be curetted because

A. pus in the lesion will infect the blood clot.
B. the fibrous tissue of the lesion will prevent new bone formation.
C. the capillaries of the lesion will cause prolonged bleeding.
D. the lesion may undergo cystic degeneration.

The most appropriate radiographic examination for a 4 year old without visible or clinically detectable caries or anomalies, and with open proximal contacts is

A. maxillary and mandibular anterior occlusals.
B. a pair of posterior bite-wings.
C. maxillary and mandibular posterior periapicals.
D. no radiographic examination.

Following periodontal flap surgery, the most common cause of recurrence of pockets is

A. systemic disease.
B. traumatic occlusion.
C. failure to splint.
D. poor oral hygiene.

A tooth with a nonvital pulp may occasionally present radiographically with shortening or blunting of the apical tip of a root. The loss of apical cementum and dentin would be classified as what type of resorption?

A. Surface.
B. Inflammatory.
C. Replacement.
D. Ankylosis.

In pediatric patients

A. asthma has a decreasing prevalence.
B. asthma is an acute inflammatory disorder.
C. asthma leads to increased caries.
D. asthmatic attacks can be triggered by anxiety.

Gutta-percha may be softened or dissolved within the root canal by using

A. alcohol.
B. ethyl chloride.
C. eugenol.
D. xylene.

The severity of the course of periodontal disease depends upon the

A. resistance of the host.
B. virulence of the organism.
C. number of organisms present.
D. A. and B.
E. A., B. and C.

For patients with prion disease such as Creutzfeldt-Jacob disease,

A. the disease is transmissible through air or by casual contact.
B. no additional precautions beyond standard procedures are recommended for dental treatment.
C. the disease is usually fatal within one year.
D. the disease has an incubation time of 3-6 months.

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A patient presents with 5mm of gingival recession on the labial of tooth 1.3. The most predictable surgical procedure to achieve root coverage on this tooth is a

A. free gingival graft.
B. subepithelial connective tissue graft.
C. lateral sliding pedicle graft.
D. double papilla pedicle graft.

The diagnosis for a patient having a sinus tract associated with a nonvital pulp who presents with no symptoms is

A. acute periradicular abscess.
B. chronic periradicular periodontitis.
C. periodontal abscess.
D. suppurative periradicular periodontitis.

Saliva production is increased when blood flow to the salivary glands is

A. stimulated by parasympathetic activity.
B. stimulated by sympathetic activity.
C. inhibited by acetylcholine.
D. inhibited by cyclic AMP.

The principal purpose of amalgam trituration is to

A. coat the alloy particles with mercury.
B. dissolve all the alloy particles in the mercury.
C. reduce the size of the crystals as rapidly as they form.
D. reduce mercury content of the restoration.

Which of the following is the strongest stimulus to respiration?

A. Decrease in arterial pH.
B. Increase in arterial oxygen.
C. Decrease in arterial oxygen.
D. Increase in arterial carbon dioxide.
E. Decrease in arterial carbon dioxide.

Acetaminophen in therapeutic doses

1. retards platelet function.
2. has strong anti-inflammatory properties.
3. produces CNS stimulation.
4. has antipyretic properties.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

When the gingival margin of a Class II composite resin preparation is located less than 1mm occlusal to the cemento-enamel junction, the risk of marginal leakage is reduced by

A. incremental curing.
B. placing a glass ionomer liner.
C. placing an initial increment of flowable resin.
D. beveling the gingival margin.

In the formulation of composite resins

A. decreasing filler content increases the modulus of elasticity.
B. increasing filler content decreases polymerization shrinkage.
C. increasing filler content increases the degree of conversion.
D. decreasing filler content increases radiopacity of the restoration.

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When restoring an endodontically treated tooth, the post
A. reinforces the root.
B. needs to end within 1mm of the apex.
C. retains the core.

Ultrasonic scalers are most effective in
A. removal of supragingival calculus.
B. removal of subgingival calculus.
C. removal of toxins from cementum.
D. planing root surfaces.

In addition to oxygen, the drug of choice for the management of angina is
A. epinephrine.
B. acetylsalicylic acid.
C. diphenhydramine.
D. nitroglycerin.
E. atropine.

Which of the following is an etiologic factor in the development of necrotizing ulcerative gingivitis?
A. Gluten intolerance.
B. Acute physiologic stress.
C. Lack of attached gingiva.
D. Gingival trauma.

The finding of “acid-fast” microorganisms in sputum suggests the presence of
A. Mycobacterium tuberculosis.
B. Diplococcus pneumoniae.
C. Streptococcus pyogenes.
D. Neisseria gonorrhoeae.

Which of the following should NOT be prescribed for a patient receiving warfarin (Coumadin®)?
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The epithelial attachment does NOT migrate apically in
A. aggressive periodontitis.
B. gingival hyperplasia.
C. chronic periodontitis.
D. necrotizing ulcerative periodontitis.

All of the following are signs of occlusal trauma EXCEPT
A. tooth mobility.
B. tooth sensitivity.
C. radiographic evidence of increased periodontal space.
D. loss of pulp vitality.

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Which statement best describes hand washing for the prevention of disease transmission?

A. Hands should be washed for at least 15 seconds, always with an antimicrobial soap.
B. Hands should be washed thoroughly and vigorously prior to placement and upon removal of gloves.
C. Transient flora is more difficult to remove during routine hand washing and needs vigorous scrubbing action.
D. An alcohol hand rub is an acceptable alternative to hand washing.

A new bone grafting material has been demonstrated to generate bone tissue through the recruitment of progenitor cells. This potential can best be described as an example of

A. osteoconduction.
B. osteogenesis.
C. osteoinduction.
D. osteopenia.

The oral examination of the edentulous patient should include digital palpation because

1. the thickness of the mucosa can better be evaluated.
2. undercut areas may be hard to visualize.
3. spicules under the mucosa may be overlooked.
4. the arch form can be more accurately evaluated

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Loss of a permanent maxillary first molar may result in

1. distal drift of the adjacent premolar.
2. mesial drift of the adjacent molar.
3. overeruption of the opposing tooth.
4. increase in overbite.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.
Ceramics used in dentistry exhibit

A. greater strength in tension than compression.
B. a tendency for tensile fracture.
C. chemical instability.
D. high thermal coefficients of expansion.

Oral hygiene for infants’ teeth should begin when

A. the first primary molars erupt.
B. all primary teeth erupt.
C. the first tooth erupts.
D. the infant is weaned from the nursing bottle or breast.

Which of the following factors may affect probing depth measurements?

1. Probing force.
2. Probe type.
3. Angulation of probing.
4. Periodontal health.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Shortly after the administration of a local anesthetic for the removal of tooth 2.8, the patient complains of a tenseness in the left cheek and left cheek swelling is observed. What is the most likely diagnosis?

A. Surgical emphysema.
B. Immediate allergic reaction.
C. Herniation of buccal fat pad.
D. Hematoma.

A rotary endodontic file separates in the canal. The most appropriate management is to

A. inform the patient of the separated file at the time of the incident.
B. inform the patient of the separated file if the tooth becomes symptomatic.
C. make a notation in the patient’s chart without informing the patient.
D. recommend an apicoectomy.

In a free-end distal extension partial denture, the most effective means of limiting applied loads to abutment teeth is by

A. splinting abutments to adjacent teeth.
B. using the abutment teeth without splinting.
C. using monoplane denture teeth.
D. maintaining a stable base-tissue relationship.

In a standard inferior alveolar nerve block, which muscle is penetrated by the needle?

A. Buccinator.
B. Mylohyoid.
C. Superior constrictor.
D. Masseter.
E. Medial (internal) pterygoid.

Which of the following nerves does NOT require anesthesia for the extraction of a permanent maxillary first molar?

A. Greater palatine.
B. Nasopalatine.
C. Middle superior alveolar.
D. Posterior superior alveolar.

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A patient must push up on his mandible to close his mouth. The most likely cause is

A. Bell’s palsy.
B. muscular dystrophy.
C. multiple sclerosis.
D. necrotizing fasciitis.
E. myasthenia gravis.

The width of the attached gingiva can be accurately measured if

A. gingival inflammation in the area has been eliminated.
B. there is an increase in crevicular fluid.
C. the probing depth is 3mm or less.
D. scaling has not been done.

Upper face infections can communicate with the cavernous sinus through

A. the angular vein to the superior ophthalmic vein.
B. the pterygoid plexus to the inferior ophthalmic vein.
C. A. and B.
D. None of the above.

When a removable partial denture is fabricated to occlude with natural teeth, the occlusal form of the artificial teeth is influenced by the

A. endodontic condition of the abutment teeth.
B. occlusal form of the remaining teeth.
C. need to produce a fully balanced occlusion.

Dental amalgam restorations

A. show decreased flow when the tin mercury phase is increased.
B. contain nickel to increase the yield strength.
C. show decreased corrosion and marginal breakdown when the copper tin phase is increased.
D. contain zinc to reduce galvanic corrosion.

Occlusal (night) guards are used to

A. treat bruxism.
B. reduce pocket formation.
C. prevent pulpitis.
D. permit eruption or elongation of teeth.

The etiology of a deep bite malocclusion of dental origin is most often the result of

1. increased eruption of the anterior teeth.
2. decreased eruption of the anterior teeth.
3. decreased eruption of the posterior teeth.
4. increased eruption of the posterior teeth.

The vertical relation of rest is

A. the same as the vertical relation of occlusion.
B. greater than the vertical relation of occlusion.
C. less than the vertical relation of occlusion.
D. the same as the interocclusal distance.
Immediately following an inferior alveolar nerve block, the patient exhibits facial paralysis. The needle has penetrated through which ligament?

A. Sphenomandibular.
B. Stylomandibular.
C. Stylohyoid.
D. Pterygomandibular.

Which of the following root surfaces are most likely to have concavities that will make root planing difficult?

1. Mesial surfaces of maxillary first premolars.
2. Mesial surfaces of mandibular incisors.
4. Distal surfaces of mandibular second premolars.

A. (1) and (2)
B. (1) and (3)
C. (1) and (4)
D. (2) and (4)
E. (3) and (4)

What is the most likely diagnosis of a white diffuse lesion with a wrinkled appearance on the buccal mucosa which disappears upon stretching?

A. Leukoedema.
B. Lichen planus.
C. Candidiasis.
D. Linea alba.
E. White sponge nevus.

A radiographic term used to describe the dense bone image of the socket and septal crest is

A. periodontal ligament space.
B. cancellous bone.
C. cribriform plate.
D. lamina dura.
E. cortical bone.

Guided tissue regeneration is a surgical procedure to

A. repair non-mineralized connective tissue.
B. repair cemental defects.
C. regenerate long junctional epithelial attachment.
D. regenerate the periodontium.

After an inferior alveolar nerve block injection, a patient would develop seventh nerve paralysis if the injection was made into the

A. internal maxillary artery.
B. retroparotid space.
C. internal pterygoid muscle.
D. retromandibular vein.
E. pterygoid plexus of veins.

In a patient with renal failure, which of the following does/do need a dose interval adjustment?

1. Penicillin V.
2. Metronidazole.
3. Erythromycin.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only.
E. All of the above.
The best means of extending the working time of an irreversible hydrocolloid impression material is to
A. extend spatulation time.
B. add additional water.
C. use cold water.
D. add a small amount of borax.
E. add potassium sulfate.

Which of the following bacterial components is considered to be of key importance in initiating and sustaining inflammatory responses in gingiva and other periodontal tissues?
A. Fimbriae.
B. Capsule.
C. Lipopolysaccharides.
D. Flagella.

Epidemiology of disease is best described as
A. data obtained from sickness surveys.
B. usual low level of disease normally found within a population.
C. control of disease.
D. study of disease patterns in a population.

Which of the following drugs inhibits salivary flow?
A. Alendronate.
B. Pilocarpine.
C. Glycopyrrolate.
D. Nystatin.

What is the most likely cause of voids in a maxillary diagnostic cast?
A. Poor mix of the impression material, incorporating air into the material.
B. Formation of saliva droplets on the palate while the impression is setting.
C. Poor mix of the stone.
D. Too high a water:powder ratio of the stone.
E. Poor flow of the impression material.

A hereditary condition affecting odontoblasts can result in
A. regional odontodysplasia.
B. fusion or gemination.
C. dilaceration.
D. hypercementosis.
E. radicular dentin dysplasia.

The most appropriate type of bone grafting material for use in the maxillofacial region is
A. allogenic.
B. alloplastic.
C. autogenous.
D. xenogenic.

Which of the following dental materials is the most radiolucent?
A. Porcelain.
B. Gutta-percha.
C. Acrylic.
D. Zinc oxide.

Nickel-chromium alloys designed for porcelain bonded to metal crowns should be used with caution because
A. nickel is an allergen.
B. the modulus of elasticity is low.
C. these alloys cannot be soldered.
D. None of the above.

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The proposed mechanism by which a calcium hydroxide preparation initiates secondary dentin formation in direct pulp cappings is by

A. releasing calcium ions.
B. stimulating differentiated ameloblasts to lay down dentin.
C. stimulating fibroblasts to elaborate nuclei of the first order.
D. stimulating undifferentiated cells of the tissue to differentiate into odontoblasts.

An 8 year old patient presents with 4mm crowding of the mandibular incisors. The patient has a Class I malocclusion and the arches are well aligned. All cephalometric values are normal. The most appropriate management for this patient is

A. monitor and recall in 6 months.
B. perform pulpotomies and interproximal discing on the mandibular primary canines.
C. extract the primary mandibular canines.
D. extract the primary mandibular canines and place a lower lingual holding arch.

A well circumscribed 3mm radiolucent lesion is present in the apical region of the mandibular second premolar. The tooth responds normally to vitality tests. The radiolucency is most likely

A. a periradicular periodontitis.
B. a dentigerous cyst.
C. a rarefying osteitis.
D. the mental foramen.

A 75 year old male patient whose wife died 10 months ago presents for his recall appointment. Looking wasted and fatigued, he confirms he has lost about 6kg in the last 8 months but is otherwise in good health. The most appropriate management for this patient is to

A. recommend that he drink 3 cans of a nutritional supplement each day.
B. refer him to a qualified dietician/nutritionist and follow up after his appointment.
C. refer him back to his physician requesting a more thorough assessment.
D. provide him with a copy of Canada’s Food Guide to Healthy Eating.

Which of the following can be characterized by a narrowing of pulp chambers and root canals?

1. Aging.
2. Chronic trauma.
3. Dentinal dysplasia.
4. Taurodontism.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

What is the goal of dentin conditioning?

A. Remove the smear layer.
B. Reduce the dentinal fluids in the tubules.
C. Expose the hydroxyapatite.
D. Eliminate the collagen fibrils.

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Which sound is associated with the most common speech defect in complete denture patients?

A. M.  
B. S.  
C. F.  
D. J.  
E. V.

Vestibuloplasty is a preprosthetic surgical procedure used to

A. facilitate reliable impression making.  
B. provide adequate posterior inter-arch space.  
C. allow placement of teeth over the residual ridge.  
D. increase the supporting surface area.

The most important factor in determining the dosage of systemic fluoride supplementation is

A. daily water consumption.  
B. climate.  
C. water fluoride concentration.  
D. total daily fluoride intake.  
E. patient age.

A 10-15 second application of 37% phosphoric acid on prepared dentin will result in all of the following EXCEPT

A. elimination of the smear layer.  
B. opening of the dentinal tubules.  
C. demineralization of the superficial dentin.  
D. elimination of the collagen fibres.

A pontic replacing a mandibular first molar should be designed so that

1. it seals the muco-gingival field.  
2. it has opened gingival embrasures.  
3. it conceals the porcelain to metal junction on its gingival surface.  
4. its gingival surface is convex in all directions.

A. (1) (2) (3)  
B. (1) and (3)  
C. (2) and (4)  
D. (4) only  
E. All of the above.

The periodontal probe should be inserted into the gingival sulcus

A. parallel to the long axis of the tooth.  
B. parallel to the root surface.  
C. with a firm pushing motion.  
D. with a firm lateral motion.

A 60 year old patient in chronic renal failure presents with bilateral radiolucent mandibular lesions. Histological analysis reveals that these are giant cell lesions. This patient should be evaluated for

A. hyperparathyroidism.  
B. hyperthyroidism.  
C. hyperpituitarism.  
D. hypoparathyroidism.
Root resorption of permanent teeth may be associated with

1. excessive orthodontic forces.
2. chronic periradicular periodontitis.
3. traumatic injury.
4. periapical cemento-osseous dysplasia.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

Erythroblastosis fetalis may be a cause of

A. supernumerary incisors.
B. pigmented teeth.
C. peg lateral incisors.
D. Fordyce's granules.
E. blue sclerae.

Planing the enamel at the gingival cavosurface of a Class II amalgam preparation on a permanent tooth

A. should result in a long bevel.
B. is contraindicated because of the low edge strength of amalgam.
C. is unnecessary since the tooth structure in this area is strong.
D. should remove unsupported enamel which may fracture.
E. should result in a sharp gingivoproximal line angle.

A 7 year old presents having just lost a maxillary permanent central incisor due to trauma. The tooth cannot be found. The treatment of choice is to

1. order a chest x-ray.
2. place an implant.
3. maintain space with a removable appliance.
4. observe and measure the space for 6 months.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The beaks of extract forceps

1. can lead to tooth fracture, slippage and injury to adjacent teeth if placed incorrectly.
2. should be placed at the cervical line of the tooth.
3. be pushed apically during extraction movements.
4. should fit the crown of the tooth.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The most prevalent inflammatory cells found in gingival tissue 24 hours following flap surgery are

A. monocytes.
B. macrophages.
C. lymphocytes.
D. polymorphonuclear leukocytes.

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Conversion of a flush terminal plane to a mesial step/Class I terminal plane in the absence of orthodontics is primarily the result of

A. loss of the mandibular primate space.
B. greater maxillary than mandibular forward growth.
C. differences in leeway between the maxillary and mandibular arches.
D. distal movement of the maxillary first permanent molars.

Which of the following is a CONTRAINDICATION for the use of a resin bonded fixed partial denture (acid etched bridge or “Maryland Bridge”)?

A. Angle Class II malocclusion.
B. An opposing free end saddle removable partial.
C. Previous orthodontic treatment.
D. Heavily restored abutment.

A patient who has until recently been on prolonged corticosteroid therapy may have

A. increased bleeding time.
B. hyposensitivity to pain.
C. decreased tolerance to physiological stress.
D. an increased metabolic rate.
E. high level of plasmatic cortisol.

Odontogenic keratocysts have a/an

A. inflammatory origin.
B. mixed radiopaque/radiolucent appearance.
C. solid consistency.
D. tendency to recur.

The use of an intra-coronal attachment is CONTRAINDICATED for a

A. nonvital tooth.
B. tooth requiring a core procedure build up.
C. tooth supported partial dentures.
D. tooth with short crown length.

The purpose of phenidone in radiographic developing solution is to chemically

A. oxidize silver halide to metallic silver in the emulsion.
B. reduce silver halide to metallic silver in the emulsion.
C. remove silver halide from the emulsion that has been exposed to radiation.
D. remove silver halide from the emulsion that has not been exposed to radiation.

An ameloblastoma is most frequently found in

A. the anterior region of the maxilla.
B. the mandible, near the junction of the body and the ramus.
C. the posterior region of the maxilla.
D. in the anterior region of the mandible near the midline.

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For acute dental pain, the daily maximum cumulative dose of acetylsalicylic acid is

A. 2,400 mg.
B. 3,200 mg.
C. 3,600 mg.
D. 4,000 mg.

The fluoride ion

1. is excreted rapidly by the kidney.
2. passes the placental barrier.
3. is deposited in teeth.
4. is deposited in bone.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A patient has a history of controlled hypertension (BP 123/80 mmHg) and type 1 diabetes (A1c is 6.3). The patient has had a cardiac catheterization, a coronary artery stent placement, and a total hip replacement in the past year. Which of the conditions in the patient’s medical history requires prophylactic antibiotic coverage for dental procedures causing bacteremia?

A. Cardiac catheterization.
B. Coronary artery stent.
C. Diabetes.
D. Hip replacement.

Aging pulps show a relative increase in

1. fibrous elements.
2. cell numbers.
3. calcification.
4. vascularity.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

During matrix band removal, the risk of marginal ridge fracture of an amalgam restoration is reduced by

A. completing most of the shaping of the marginal ridge before removal.
B. leaving an excess of amalgam in the occlusal area before removal.
C. contouring and wedging the band.
D. using universal circumferential retainers and bands.

Which of the following drugs WILL NOT cause gingival hyperplasia?

A. cyclosporine
B. doxepin
C. phenytoin
D. verapamil

The purpose of hand hygiene in infection control is primarily to reduce the

A. resident microflora in the deep tissue layers.
B. quantity of transient microorganisms on the surface of the hands.
C. dryness of the skin prior to donning gloves.
D. risk of patient contamination.

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The eruption of a permanent central incisor may be delayed by
A. a supernumerary tooth.
B. dense fibrous tissue.
C. a retained deciduous incisor.
D. All of the above.

A radiographic examination of a 10 year old child reveals retention of deciduous teeth and presence of many unerupted supernumerary teeth. This is characteristic of
A. cleidocranial dysplasia.
B. ectodermal dysplasia.
C. dentinogenesis imperfecta.
D. congenital hypothyroidism.

Aphthous stomatitis
1. is considered to be an autoimmune condition.
2. is more frequent in men than in women.
3. may be related to the menstrual cycle.
4. is rarely seen clinically with vesicle formation.
5. is of three to four days duration.

Which of the following methods decrease radiation exposure to patients?
1. Thyroid collar and lead apron.
2. Rectangular collimation.
3. High speed films.
4. High kilovoltage.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

In chronic periodontitis, the sulcular epithelium has the following characteristics EXCEPT
A. is a barrier to bacterial invasion.
B. is permeable to bacterial enzymes and toxins.
C. may be ulcerated.
D. undergoes both degenerative and proliferative changes.

Median anterior maxillary cysts are found in
A. the zygomatic process of the maxilla.
B. the incisive canal.
C. the uvula.
D. the hamular process.
E. None of the above.

Which of the following will result from a 2 week regimen of tooth whitening using a 10% carbamide peroxide gel in a custom tray for 8 hours each night?
A. Moderate demineralization of enamel.
B. Significant incidence of irreversible pulpitis.
C. Decreased bonding potential to enamel.
D. Decreased enamel surface porosity.
Acetylsalicylic acid should be avoided in each of the following EXCEPT

A. gastric ulcer.
B. gout.
C. severe asthma.
D. hyperlipidemia.
E. type 2 diabetic.

Which of the following is the most appropriate management for a dry socket?

A. Hydrogen peroxide irrigation of the socket.
B. Vigorous curettage of the socket.
C. Placement of a dressing in the socket.
D. A prescription for antibiotics.

Generalized enlarged fibrotic interdental papillae of 2 months duration are interfering with orthodontic treatment. There is no evidence of attachment loss. Scaling and root planing have not resolved the condition. Which of the following is the most appropriate intervention?

A. Gingival curettage.
B. Gingivoplasty.
C. Osseous resective surgery.
D. Guided tissue regeneration.

Interproximal reduction of the mesial of the lower primary cuspids is indicated to

A. encourage mesial movement of the deciduous molars.
B. provide space for alignment of the permanent incisors when crowding is 1-3 mm.
C. provide space for alignment of the permanent incisors when crowding is 3-5 mm.
D. decrease inter-cusp arch width.

The most appropriate treatment for a permanent central incisor with a necrotic pulp and a wide open apex is

A. pulpotomy with calcium hydroxide.
B. apexification with calcium hydroxide.
C. apexification with zinc oxide.
D. root canal therapy using gutta-percha.
E. root canal therapy followed by a retrograde filling.

Epinephrine in a local anesthetic solution will

1. decrease absorption of the anesthetic.
2. assist hemostasis at the site of injection.
3. prolong the action of the anesthetic agent.
4. assist in post-operative healing.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

To minimize fractures of amalgam restorations in deciduous teeth, cavity preparations should have

1. concave pulpal floors.
2. rounded axiopulpal line angles.
3. rounded proximal retention grooves.
4. lateral walls parallel to the external surface of the tooth.

A. (1) (2) (4)
B. (1) (3) (4)
C. (2) (3) (4)
D. All of the above.

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There is an acute periradicular abscess on tooth 1.3. The tooth must be extracted. In addition to a palatal injection, the most appropriate local anesthetic technique would be

A. vestibular infiltration.
B. infraorbital.
C. middle superior alveolar.
D. intraligamentary.

Tranquilizers and hypnotics

1. are depressants of the respiratory centre.
2. are depressants of the cerebral cortex.
3. may cause physical dependency.
4. may have convulsant effects.

A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

The mesial furcation of maxillary permanent first molars is best probed from the

A. buccal.
B. buccal or lingual.
C. lingual.

The freeway space is

A. the difference between occlusal vertical dimension and hinge axis registration.
B. the difference between occlusal vertical dimension and rest vertical dimension.
C. usually 10mm in the premolar region.
D. the distance between maximum intercuspation and centric relation.

A feature of primary syphilis is

A. atrophic glossitis.
B. a gumma.
C. a chancre.
D. a mucous patch.

The preconditioning of an all-ceramic restoration prior to bonding is achieved by

A. sandblasting.
B. acid etching with phosphoric acid.
C. roughening the surface with a diamond bur.
D. acid etching with hydrofluoric acid.
E. degreasing with acetone.

In an acute periapical abscess, which of the following teeth is most likely to spread infection to the submandibular space?

A. Mandibular second bicuspid.
B. Maxillary third molar.
C. Mandibular first molar.
D. Mandibular third molar.
E. Mandibular lateral incisor.

The principal internal retention for a Class V amalgam cavity preparation is established at the

A. occluso-axial and gingivo-axial line angles.
B. mesio-axial and disto-axial line angles.
C. mesio-gingival and disto-gingival line angles.
D. None of the above.

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In alginate impression materials, sodium phosphate (Na$_3$PO$_4$) is the
A. reactor.
B. catalyst.
C. retarder.
D. disinfectant.
E. cross linking agent.

During orthodontic therapy, the periodontal ligament (membrane) radiographically appears
A. unaffected.
B. decreased in width.
C. increased in width.
D. None of the above.

Which of the following is/are (a) useful guide(s) in determining a patient’s occlusal vertical dimension?
1. Appearance.
2. Phonetics.
3. Observation of the rest position.
4. Pre-extraction profile records.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only.
E. All of the above.

Inflammation involving the bone marrow of the jaw caused by infection from a tooth or the periodontium is called
A. osteoma.
B. periostitis.
C. osteomyelitis.
D. osteosclerosis.
E. pericementitis.

Radiographically, a benign bone neoplasm is differentiated from a malignant one because in the benign lesion
1. the margins are irregular and fade into the surrounding bone.
2. the cortex remains intact.
3. there can be perforation of the periosteum.
4. the margins are defined and demarcated.
A. (1) (2) (3)
B. (1) and (3)
C. (2) and (4)
D. (4) only
E. All of the above.

A radiopaque area within the alveolar process containing several rudimentary teeth suggests a/an
A. periapical cemento-osseous dysplasia.
B. ameloblastoma.
C. compound odontoma.
D. complex odontoma.
E. Pindborg tumor.

Areas of isolated gingival recession are most frequently seen on teeth that are
A. nonvital.
B. moderately mobile.
C. ankylosed.
D. labially prominent in the arch.

Filters are placed in the path of the x-ray beam to
A. increase contrast.
B. reduce film density.
C. reduce exposure time.
D. reduce patient radiation dose.
For an otherwise healthy patient, with an acute localized periodontal abscess, initial treatment must include

A. scaling and root planing.
B. occlusal adjustment.
C. prescription of an antibiotic.
D. prescription of an analgesic.

Inadequate space for the eruption of the maxillary second premolar is most frequently caused by the premature loss of the deciduous

A. first molar.
B. second molar.
C. central incisor.
D. canine.

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