



2. Pharmacology

- Which of the following conditions need prophylactic antibiotic coverage?*
 - Local anesthesia
 - Routine tooth brushing.
 - Suture removal.
 - d. Orthodontic band.
- Which of the following drugs used to decrease saliva during impression making?*
 - a. Anticholinergic agent.
 - Antidiabetic.
 - Cholinergic.
 - Anticorticosteroid.
- What is the action of atropine?*
 - a. Dries secretion such saliva
 - Causes central nervous system depression.
 - None of the above
 - Depresses the pulse rate.
 - All the above
- Which of the following antibiotics act by inhibiting cell wall synthesis?*
 - a. Cefepime
 - Erythromycin.
 - Amino glycosides.
 - Doxycycline.
- All of the following are true about heparin except:*
 - a. Weakest acid found in living things
 - Produce thrombocytopenia
 - Act via antithrombin activation
 - All of the above
- Majority of drugs cross biological membranes primarily by:*
 - a. Passive diffusion
 - Active transport
 - Facilitated diffusion
 - Pinocytosis
- What is the dosage of steroid in treatment of pemphigus?*
 - a) 1 mg/kg body weight
 - 50-100 mg/kg body weight
 - 10-20 mg/kg body weight
 - 1g/kg body weight
- Tetracycline will be impaired with which drug:*
 - Chloramphenicol
 - Heparin
 - b. Penicillin
 - Sulfonamide
- Cardiovascular medications cause increase saliva secretion:*
 - True.
 - b. False.

2. Pharmacology

10. *Treatment dosage of pemphigus vulgaris is:*
a. 1-2 g/kg prednisone daily
b. 1 mg/kg prednisone daily
c. 10 mg hydrocortisone.
d. 50- 100 mg hydrocortisone
11. *The antibiotic of choice in pregnant:*
a. Metronidazole.
b. Penicillin.
c. Tetracycline.
d. Erythromycin
12. *Type I diabetes mellitus can be characterized as:*
a. Non-insulin-dependent.
b. Adult- onset.
c. Ketosis-prone diabetes
d. Accompanied by normal cell activity.
13. *Phenotoin should not be given along with:*
a. Tetracycline
b. Metronidazole.
c. Pencillin
d. All of the above
14. *Calcium channel blockers cause increase saliva secretion:*
a. True.
b. False.
15. *The correct dose of corticosteroid daily dose for pemphigus vulgaris patient is:*
a. 1-2 g/kg/daily hydrocortisone.
b. 50- 100 mg hydrocortisone.
c. 1-2 mg hydrocortisone.
d. 10 mg hydrocortisone.
16. *What is the treatment of patient with systemic candidiasis, who is on long term antibiotic cause?*
a. Amphotrecin B
b. Fluconazol
c. Nystatin
d. None of the above
17. *Xylitol is sugar substitute which help in:*
a. Decrease caries.
b. Increase caries.
c. Increase taste sensation
d. Decrease taste sensation
18. *Patient with complete denture comes to your clinic, complaints about his dry mouth, the proper medicine is?*
a. Anti diabetic medicine.
b. Cholinergic.
c. Anticholinergic
d. Salivary subsitutes
19. *Acyclovir dose for treatments of herpes simplex:*
a. 200 mg / 5 times a day
b. 200 mg / 4 times a day
c. 400 mg / 4 times a day
d. 800 mg / 4 times a day
20. *Corticosteroids are useful in treatment of TMJ arthritis because they have:*
a. An analgesic effect.
b. An anti inflammatory effect
c. Inhibitory effect on synovial membranes.
d. Analgesic and anti inflammatory effect
21. *Trigeminal neuralgia treated by carbomizapine, the max dose per day divided in dosesis:*
a. 200 mg
b. 500 mg
c. 1000 mg
d. 1200 mg
22. *One of the following is non caloric sweetener:*
a. Palatinit.
b. Sorbitol.
c. Matitol.
d. Sucralose.

2. Pharmacology

37. *Abdominal secretions has reduced by:*
a. Anticholinergic drugs
b. Cholinergic drugs
c. Calcium channel blockers
d. All the above
38. *Prevention of migraine the following drugs are used except:*
a. Ergotamine
b. NSAIDs
c. Propanolol
d. Succinyl choline
39. *To control the migraine attack which of the following drug will be give?*
a. Propanalol
b. Ergotamine
c. NSAIDs
d. Paracetamol
40. *Xylithol chewing gum used for:*
a. Reduce caries
b. TMJ problem
c. Increase salivary secretion
d. All the above
41. *Following is not an adverse effect of ibuprofen?*
a. Hematemesis.
b. Renal impairment
c. Agranulocytosis.
d. Gastrointestinal disturbances
42. *Which of the following is the main disadvantage of chlorhexidine mouthwash:*
a. Staining of the teeth.
b. Burning sensation.
c. Altered taste.
d. Cause allergy
43. *Epliptic patient should not take which drug:*
a. Aspirin
b. Paracetamol
c. Pencillin
d. Metronidazole
44. *If the patient who is on NSAIDs consumes alcohol than there is:*
a. Increase risk of bleeding.
b. Increase risk of ulceration.
c. Decrease effect of NSAIDs.
d. Increase risk of hypotension.
45. *Antibiotic of choice in a patient who is resistant to penicillin:*
a. Erythromycin
b. Clindamycin
c. Metronidazole
d. All the above
46. *Patient on long term antibiotic came with systemic candida:*
a. Amphotrecin B
b. Fluconazol
c. Nystatin
d. All the above
47. *Patient with systemic candidiasis, best treated by:*
a. Amphotericin B
b. Flucanzol
c. Nystatin
d. All the above
48. *Patient with simple herpes treated by acyclovir. The dose should be given is:*
a. 400 mg/ three times per day.
b. 600 mg/three times per day
c. 200 mg/ five times per day
d. 800 mg/ three times per day.
49. *Which drug is not used in migranous neuralgia?*
a. NSAIDs
b. Ethropine
c. Antibiotic
d. All the above
50. *Main disadvantage of chlorhexidine:*
a. Staining.
b. Burning sensation.
c. Altered taste.
d. All the above
51. *Which of the following drugs is completely effective in eliminating angina episode:*
a. Propranolol.
b. Nifedipine.
c. Diltiazem.
d. Transdermal nitroglycerin.
52. *An bio inhibit cell biosynthesis:*
a. Penicillin
b. Tetracycline
c. Cyclosporine

53. *Propofol drug uses:*
a. Slow the activity of brain b. Bronchodilator
 c. Control lacrimal d. Vasa construction
54. *Implant patient has moderate pain postoperatively; you prescribe opioid*
 a. Acetaminophen 625 mg + 30 mg codeine
c. Ibuprofen 200 + 60 mg hydrocodone b. Ibuprofen 400
55. *Maximum dose of adrenalin for patient on anti-depressant drugs:*
a. 0.04-0.05 b. 0.07-0.09
 c. 0.1 d. 0.4-0.5
56. *In revascularization case, what length of time it will take to leave triple antibiotic + what is L.A used + what material is used for blood clot?*
a. 3 week, 3% mepivacain without epinephrine, MTA
 b. 2 week, 2% lidocaine with 1:100000 epinephrine, GIC
 c. 2 week, 2% arzocaine with epinephrine, composite
57. *Patients should not be dispatched home immediately after procedure under diazepam sedation because:*
 a. Produces convulsions after 30-40 min. b. Ataxia and CNS depression
c. Diazepam is redistributed in 30-45 min. d. None of the above
58. *Where does the breakdown of lidocaine occurs?*
 a. Kidneys b. Liver.
 c. Plasma membrane d. Lungs
59. *Which of the following materials is not a hemostatic agent?*
 a. Oxidized cellulose b. Gelvon c. Zinc oxide. d. None of the above
60. *Patient taken heparins he should do surgery after:*
 a. 1 Hr b. 2 Hr c. 4 Hr d. 6 Hr.
61. *For a patient that is on a corticosteroid therapy, upon oral surgery, the patient is given:*
 a. 50 - 100 mg hydrocortisone. b. 400 - 600 mg prednisolone
 c. 100 - 200 mg prednisolone d. 100 - 200 mg hydrocortisone.
62. *The longest acting, most potent and most toxic LA is:*
 a. Lidocaine. b. Dibucaine. c. Bupivacaine. d. Tetracaine.
63. *Antibiotics are most used in cases of:*
 a. Acute localized lesion b. Diffuse, highly progressing lesion.
 c. Both d. None of the above
64. *Ester type of local anesthesia secreted by:*
 a. Liver only b. Kidney c. Lung d. All the above
65. *Where does the breakdown of ester type LA occurs?*
 a. Kidneys b. Liver c. Lung d. Plasma and liver
66. *Aplastic anemia caused by:*
 a. Tetracycline. b. Penicillin. c. Erythromycin. d. Sulfonamide.

2. Pharmacology

67. **Maximum dose of xylocaine without adrenaline that can be given in 60 kg adults is:**
a. 500 mg. b. 300 mg. c. 400 mg. d. 600 mg.
68. **Patient has anaphylactic shock after taking penicillin. You have to give him:**
a. 0.5 mg epinephrine of 1/10000 intra venous. b. Adrenaline 1/1000 intra muscular.
c. 200 mg hydrocortisone intravenous. d. None of the above
69. **Medicine for candidiasis associated with prolonged antibiotic therapy:**
a. Sulphonates b. Amphotericin c. Fluconazole d. nystatin
1. a+b 2. b+c 3. b+d 4. a+d
70. **Sedation with laughing gas will interfere with:**
a. Vit A b. Vit B₁₂ c. B₆ d. Vit D
71. **Local anesthetic, which does not cause vasodilation:**
a. Lignocaine. b. Cocaine. c. Bupivacaine. d. Tetracaine.
72. **Nitrous oxide affects the following:**
a. Calcium b. Vitamin B₁₂ c. Phosphorus d. RBC
73. **Ester type of local anesthesia metabolized by:**
a. Liver only b. Kidney c. Lung d. Plasma.
74. **The following antibiotic is a first line treatment of Mycobacterium avium complex infection in AIDS patients:**
a. Cindamycin b. Clarithromycin c. Roxithromycin d. Erythromycin
75. **What is the amount of xylocain in mg, in 1.8 ml of LA?**
a. 2 mg/ml b. 20 mg/ml c. 1.8 mg/ml d. 3.6 mg
76. **Ester group is not found in which LA?**
a. Novocaine. b. Orocaine. c. Duocaine. d. Carbocaine.
77. **LA mechanism of action is:**
a. Increase the threshold b. Decrease the threshold
c. Same threshold d. Increase threshold only in amide type
78. **The maximum dose of lignocaine without adrenaline that can be admitted to a patient is:**
a. 4 mg / kg body wt. b. 5 mg / kg body wt.
c. 7 mg / kg body wt. d. 9 mg / kg body wt.
79. **In order to decrease the gastric secretion:**
a. Histamine A antigen equivalent. b. Histamine B antigen equivalent.
c. Anticholenergic. d. Adrenal steroids.
80. **Bronchial asthma epinephrine concentration subcutaneously:**
a. 1/100 b. 1/1000 c. 1/10000 d. 1/100000
81. **Slowest L.A action:**
a. Bupivacaine b. Mepivcaine c. Prolicaine
82. **Prevent platelet accumulation:**
a. Factor X b. Ca c. Aspirin

Section II: Topicwise Questions / Answers

83. *First choice antibiotic for pregnant women:*
a. Ampicillin b. Tetracycline c. Cephalexin d. Metronidazole
84. *Which contraindicated with sickle cell anemia?*
a. Aspirin b. Acetaminophen c. Opioid and pethidine
85. *First sign to show if there is lidocaine toxicity:*
a. Bradycardia b. Tachycardia c. Cardiac fibrillation
86. *What is the maximum of 2% lidocaine with 1:100000 epinephrine 80 kg pt?*
a. 400 mg b. 560 mg c. 360 mg d. 600 mg
87. *Child, 3 year old, 15 kg, what is the maximum carpule (local anesthesia) can you give him:*
a. 1-2 carpules b. 2-3 carpules c. 3-4 carpules d. 4-5 carpules
88. *During injection of diazepam for patient has anxiety from dental treatment, patient complains from burning sensation. What is the cause?*
a. Large size diame needle b. Present of methylen in the solution
c. Present of saline in the solution

EXPLANATION

1. **Answer: d**

Reference: Burket's Oral Medicine, 10th ed, page 381

2. **Answer: a**

3. **Answer: a**

Reference: K.D.Tripathi's Essentials of Medical Pharmacology

Atropine dilates the pupils, increases heart rate, and reduces salivation and other secretions.

4. **Answer: a**

Reference:: K.D.Tripathi's Essentials of Medical Pharmacology, 5th page 663

5. **Answer: a**

Reference: K.D.Tripathi's Essentials of Medical Pharmacology, page 561

6. **Answer: a**

Reference: K.D.Tripathi's Essentials of Medical Pharmacology, 5th ed, page 12

7. **Answer: a**

Reference: Tyldesley's Oral Medicine, 5th ed, page 132

Very high dosages are used initially to suppress bulla formation (of the order of 1 mg/kg prednisolone daily), but this may often be slowly reduced to a maintenance dose of 15 mg daily or thereabouts.

8. **Answer: b**

The absorption of tetracycline:

From the gastrointestinal tract is impaired by the concomitant administration of di and trivalent cations such as iron, calcium, aluminium, magnesium, bismuth and zinc salts of medicinal products containing these cations and tetracycline should be maximally separated by at least two to three hours.

The following should be avoided when taking tetracycline: antacids, bismuth containing ulcer-healing drugs, drugs such as quinapril tablets which contain magnesium carbonate and didanosine which contains calcium and magnesium excipients.

Absorption of tetracycline is impaired by food, milk, and milk products.

Since tetracycline has been shown to depress plasma prothrombin activity, patients who are on anticoagulant therapy may require a downward adjustment of their anticoagulant dosage. Tetracycline may prolong the action of coumarin anticoagulants.

- Plasma-atovaquone concentration is reduced by tetracycline.
- There is a possible increased risk of benign intracranial hypertension with tetracyclines and retinoids (acitretin, isotretinoin, tretinoin). Concomitant use should be avoided.
- Antidiarrhoeal preparations such as kaolin-pectin and bismuth subsalicylate hinder absorption of tetracyclines.
- Combination of tetracyclines with diuretics may be detrimental to renal function and may aggravate nephrotoxicity by volume depletion.
- Since bacteriostatic drugs may interfere with the bactericidal action of penicillin, it is advisable to avoid giving tetracycline in conjunction with penicillin.

Section II: Topicwise Questions / Answers

- A few cases of pregnancy or breakthrough bleeding have been attributed to the concurrent use of tetracycline with oral contraceptives and alternative contraceptive advice should be sought where necessary.
- There have been reports of nephrotoxicity (increased blood urea nitrogen and serum creatinine) and death in some cases when tetracycline therapy has been combined with methoxyflurane.
- Tetracycline may increase the hypoglycemic effects of insulin and sulphonylureas in patients with diabetes mellitus.
- The absorption of tetracycline may be reduced by the concomitant administration of sucralfate. Separating administration should be considered.
- Tetracycline may cause an increase in serum lithium levels.
- Tetracycline may cause an increase in serum digoxin levels.
- Tetracycline may cause an increase the risk of methotrexate toxicity. Regular monitoring of toxicity is necessary when taken concurrently.
- Absorption of tetracycline is impaired by strontium ranelate (manufacturer of strontium ranelate advises avoid concomitant use).
- Absorption of tetracycline is possibly reduced by colestipol and colestyramine.
- Increased risk of ergotism when tetracycline given with ergotamine and methysergide.

Pregnancy and lactation

Not to be used in pregnancy unless essential to the patient's welfare. Tetracyclines cross the placenta and may have toxic effects on foetal tissues, particularly on skeletal development,

If this drug is used during pregnancy, or if the patient becomes pregnant while taking this drug, the patient should be appraised of the potential hazard to the fetus. Tetracyclines are also excreted in breast milk and are therefore contraindicated in nursing mothers.

Use in newborns, infants and children: All tetracyclines form a stable calcium complex in any bone-forming tissue.

A decrease in fibula growth rate has been observed in premature infants given oral tetracycline in doses of 25 mg/kg every 6 hours. This reaction was reversed when drug was discontinued.

9. **Answer: b**

Reference: Carranza's Clinical Periodontology page 285

Cardiovascular medications (calcium channel blockers) may reduce salivary flow

10. **Answer: d**

Reference: Tyldesley's Oral Medicine, 5th ed page 132

11. **Answer: b**

12. **Answer: c**

Reference: Harrison's Principles of Internal Medicine

Ketosis-prone diabetes - severe diabetes mellitus with an early onset

13. **Answer: b**

14. **Answer: b**

Reference: Carranza's Clinical Periodontology, page 285 "Cause gingival overgrowth"

15. **Answer: b**

Reference: Tyldesley's Oral Medicine, 5th ed, page 132

2. Pharmacology

Very high dosages are used initially to suppress bulla formation (of the order of 1 mg/kg prednisolone daily), but this may often be slowly reduced to a maintenance dose of 15 mg daily or thereabouts

16. **Answer: b**

Reference: Oxford Handbook of Clinical Dentistry, 4th ed, page 438-439

Fluconazole 50 mg OD is the systemic drug of choice.

17. **Answer: a**

18. **Answer: b**

19. **Answer: c**

In case of immunodeficiency double the dose to 800 mg.

20. **Answer: b**

Reference: Shafer's Textbook of Oral Pathology, 5th ed, page 1019

21. **Answer: d**

Reference: Carbamazepine Dosage – Drugs.com

Usual Adult Dose for Trigeminal Neuralgia

Initial dose: 100 mg orally twice a day (immediate or extended release) or 50 mg orally 4 times a day (suspension).

May increase by up to 200 mg/day using increments of 100 mg every 12 hours (immediate or extended release), or 50 mg four times a day. (suspension), only as needed to achieve freedom from pain. Do not exceed 1200 mg/ day.

Maintenance dose: 400 to 800 mg/day.

Some patients may be maintained on as little as 200 mg/day while others may require as much as 1200 mg/day. At least once every 3 months throughout the treatment period, attempts should be made to reduce the dose to the minimum effective level or to discontinue the drug

22. **Answer: d**

Reference: Damles' Textbook of Pediatric Dentistry, page 44

23. **Answer: a**

Reference: Oxford Handbook of Clinical Dentistry, 4th ed, page 36

24. **Answer: d**

25. **Answer: a**

Reference: Glickman 10 ed, page 339

26. **Answer: C**

Reference: Damles' Textbook of Pediatric Dentistry, page 466

27. **Answer: b**

28. **Answer: d**

29. **Answer: d**

30. **Answer: c**

Reference: Tyldesley's Oral Medicine, 5th ed, page 132

31. **Answer: c**

Reference: K.D.Tripathi's Essentials of Medical Pharmacology, 5th ed., page 654

32. **Answer: d**

33. **Answer: c**

34. **Answer: c**

(Anticonvulsants (such as phenytoin, phenobarbital, lamotrigine, valproate, vigabatrin, ethosuximide, topiramate and primidone) [calcium channel blockers, such as nifedipine, amlodipine, and verapamil. The dihydropyridine derivative isradipidine can replace nifedipine and does not induce gingival overgrowth. cyclosporine, an immunosuppressant.

Of all cases of DIGO, about 50% are attributed to phenytoin, 30% to cyclosporins and the remaining 10-20% to calcium channel blockers.)

35. **Answer: d**

36. **Answer: a**

Chlorexidine: it has both bactericidal and bacteriostatic *mechanisms of action*, the *mechanism of action* being membrane disruption

37. **Answer: a**

Reference: Carranza's Clinical Periodontology, page 285

38. **Answer: d**

Preventive drugs for migraine is propranolol and amitriptyline.

39. **Answer: b**

Drug of choice for migraine is ergotamine.

40. **Answer: a**

41. **Answer: b**

Reference: Damle's Textbook of Pediatric Dentistry, page 406

42. **Answer: a**

Reference: Oxford Handbook of Clinical Dentistry, 4th ed. page 36, 448

43. **Answer: d**

Drugs used in dentistry that can increase anticonvulsant activity, leading to overdose • aspirin and other NSAIDs.

Drug problems in epilepsy: Drugs that can be epileptogenic and therefore are contraindicated • alcohol • chlorpromazine • enflurane • flumazenil • fluoxetine • ketamine • lidocaine (large doses) • metronidazole

44. **Answer: b**

Reference: Malamed's Medical Emergencies in the Dental Office, page 34

45. **Answer: a**

46. **Answer: b**

Reference: Oxford Handbook of Clinical Dentistry, 4th ed, page 438-439

47. **Answer: a**

48. **Answer: d**

49. **Answer: b**

50. **Answer: a**

Reference: Oxford Handbook of Clinical Dentistry, 4th ed, page-36,448

chlorohexidine has several disadvantages. One of the most important disadvantages is that if a patient rinses his mouth with chlorohexidine compositions regularly, his teeth and tongue obtain a brownish color. This is off course a major disadvantage. Another disadvantage of chlorohexidine is that it has no significant anti-bacterial effect on gram positive bacteria at relatively low concentrations. This means that gram positive bacteria will not be effected by the rinse composition and may thus still cause periodontitis or produce the volatile sulphur compounds that cause the malodour.

51. **Answer: c**

52. **Answer: a**

53. **Answer: a**

54. **Answer: a**

55. **Answer: a**

56. **Answer: a**

57. **Answer: c**

Reference: Damles' Textbook of Pediatric Dentistry, page 395

58. **Answer: b**

Reference: Monheim's Local Anesthesia and Pain control in General Practice

lidocaine is amino amide type local anesthesia

Amide type local anesthesia – liver

Ester type local anesthesia – Plasma + Liver

59. **Answer: c**

60. **Answer: d**

61. **Answer: d**

62. **Answer: b**

Reference: K.D.Tripathi's Essentials of Medical Pharmacology, 5th ed, page 326

63. **Answer: b**

Reference: Peterson's Principles of Oral and Maxillofacial Surgery

64. **Answer: b**

Reference: Peterson's Principles of Oral and Maxillofacial Surgery

Cholinesterase is produced by the liver; by breaking ester linkages it inactivates drugs such as succinylcholine and ester-type local anesthetics. The hepatic microsomal enzyme system converts lipid soluble drugs into more water soluble ones that can be excreted by the kidney.

65. **Answer: d**

66. **Answer: d**

Aplastic anemia is also sometimes associated with exposure to toxins such as benzene, or with the use of certain drugs, including chloramphenicol, carbamazepine, felbamate, phenytoin, quinine, and phenylbutazone. Many drugs are associated with aplasia mainly according to case reports but at a very low probability. As an

Section II: Topicwise Questions / Answers

example, chloramphenicol treatment is followed by aplasia in less than 1 in 40,000 treatment courses, and carbamazepine aplasia is even more rare.

67. **Answer: b**

Reference: Monheim's Local Anesthesia and Pain Control in General Practice, 7th ed, page 111

68. **Answer: b**

Reference: Harrison's Principles of Internal Medicine

Anaphylaxis is always an emergency. It requires an immediate injection of 0.1 to 0.5 ml of epinephrine 1:1,000 aqueous solution, repeated every 5 to 20 minutes as necessary. • If the patient is in the early stages of anaphylaxis and hasn't yet lost consciousness and is still normotensive, give epinephrine I.M. or subcutaneously (S.C.) helping it move into the circulation faster by massaging the injection site. For severe reactions, when the patient has lost consciousness and is hypotensive, give epinephrine I.V

69. **Answer: 3**

70. **Answer: b**

71. **Answer: b**

Reference: K.D.Tripathi's Essentials of Medical Pharmacology, 5th ed, page 325

72. **Answer: b**

Reference: Oxford Handbook of Clinical Dentistry 4th ed, page 646

Reference: Ganong's Review of Medical Physiology 22th ed, page 496

73. **Answer: d**

Reference: Dental Decks, 2nd edition page 2376

74. **Answer: d**

Reference: K.D.Tripathi's Essentials of Medical Pharmacology, 5th ed page 689

75. **Answer: d**

76. **Answer: d**

Reference: Monheim's Local Anesthesia and Pain Control in General Practice, page 125

77. **Answer: a**

78. **Answer: a**

Reference: Monheim's Local Anesthesia and Pain Control in General Practice 7th ed, page 148

79. **Answer: c**

80. **Answer: b**

Reference: Oxford Handbook of Clinical Dentistry, 4th ed page 578

If the reaction is immediate (less than 1 hour) and limited to the skin, 50 mg of diphenhydramine should be given immediately either intravenously or intramuscularly. The patient should be monitored and emergency services contacted to transport the patient to the emergency department. If other symptoms of allergic reaction occur, such as conjunctivitis, rhinitis, bronchial constriction, or angioedema, 0.3 cc of aqueous 1/1000 epinephrine should be given by subcutaneous or intramuscular injection. The patient should be monitored until emergency services arrive. If the patient becomes hypotensive, an intravenous line should be started with either Ringer's lactate or 5% dextrose/water

81. **Answer: a**

Bupivacaine – the slowest, procaine, mepivacaine – the fastest

2. Pharmacology

82. **Answer: c**

83. **Answer: a**

84. **Answer: a**

Control of acute pain of sickle cell anemia. Pain control is best achieved with opioids. Morphine is the drug of choice.

85. **Answer: b**

86. **Answer: b**

In 1 cartridge contain 1.8 ml (1:100000 epinephrine – 0.018 mg, 2% lidocaine = 36 mg)

Maximum dose of epinephrine to healthy patient – 0.2 /visit

Maximum dose of lidocaine with epinephrine – 7 mg/kg

Maximum dose of lidocaine without epinephrine – 4.4 mg/kg

No of cartridges in one visit = max dose of epinephrine in 1 visit / content in one cartridge ($0.2/0.018=11$)

Max dose of lidocaine with epi = dose of lidocaine X patient weight ($7 \times 80= 560$ mg)

Max no of cartridges= max dose of lidocaine / content in 1 cartridge ($560/36=15$)

Max dose of lidocaine without epi = dose of lidocaine X patient weight ($4.4 \times 80= 352$ mg)

Max no of cartridges= max dose of lidocaine / content in 1 cartridge ($352/36=9.7$, approx. 9-10)

87. **Answer: b**

Max dose of lidocaine with epi = dose of lidocaine X patient weight ($7 \times 15= 105$ mg)



3. Infection Control in Dentistry

1. *Your dental patient suffers from tuberculous lung. What you have to do?*
 - a. Treat patient wearing dental mask
 - b. Postpone dental treatment
 - c. Treat patient. & take all the protection measures
 - d. avoid surgical procedures
2. *The most common location of percutaneous injury among dentist is:*
 - a. Hand.
 - b. Face.
 - c. Elbow.
 - d. Arm.
3. *After patient with hepatitis-B left the dental chair the assistant asks you how to disinfect the dental unit. What will you suggest*
 - a. Iodine
 - b. 100% dettol
 - c. Hypochloride .
 - d. All the above
4. *A patient is hepatitis positive and your assistant does not know how to activate the surgery. He asks you what the disinfecting solutions that should be used are.*
 - a. Iodophores
 - b. Sodium hypochlorite and iodoform
 - c. Ethylene oxide
 - d. Formalin
 - e. Alcohol
5. *Hepatitis patient has received needle prick, what you will do?*
 - a. Wash and scrub,
 - b. Wash under running water and put a waterproof bandage,
 - c. Blood testing for virus
 - d. Apply pressure on wound to stop bleeding
6. *Discarded medicine is collected in following colored bag:*
 - a. Yellow.
 - b. Red.
 - c. Blue.
 - d. Black.
7. *What is the procedure for sterilization in dental office?*
 - a. Autoclave
 - b. Flash sterilization
 - c. Chemiclave
 - d. All the above
8. *What is most important in dental office?*
 - a. Availability of all treatment
 - b. Quality treatment
 - c. Infection control
 - d. Good hospitality
9. *Saliva ejectors are used for:*
 - a. Saliva ejection
 - b. Control the tongue movements
 - c. Retraction
 - d. All the above.
10. *Saliva ejector is placed:*
 - a. At the side of working.
 - b. Under the tongue.
 - c. Opposite the working side.
 - d. b + c.

3. Infection Control in Dentistry

11. **HVE is placed: HVE is: High volume evacuator:**
- a. At the side of working.
 - b. Under the tongue.
 - c. Opposite the working side.
 - d. b+c.
12. **Grasping the HVE is by:**
- a. Thumb to nose grasp.
 - b. Pen grasp.
 - c. a+b.
 - d. None.
13. **At the beginning of the operation day in the clinic you should start water air spray for which micro organism?**
- a. Streptococcus salivaris and Pseudomonas aeruginosa
 - b. St. mutans
 - c. St. auries
 - d. E. coli
14. **Dentifrices contain amount of chlorohexidine:**
- a. 12%
 - b. 1.2%
 - c. 0.12%
15. **Early in the morning dentist should open the air water spray for 3 min to avoid which bacteria?**
- a. Pseudomonas aurignossa
 - b. St.Arucs
 - c. E. coli
 - d. Staph.salivaris
16. **What is the fluoride concentration in fluoride dentifrices?**
- a. 1100
 - b. 1000
 - c. 1200
 - d. 1300
17. **Asking about disinfectant of dental chair after HBV .**
- a. Iodophor&hypo chloride
 - b. Formaldehyde
 - c. Ethylene oxide gas
 - d. 100/ ethyl alcohol/detox
18. **Clean instrument before entering the sterilization why?**
- a. It helps to kill bacteria
 - b. Speed sterilization process
 - c. For integrity of instrument
19. **To clean instrument before sterilization we use:**
- a. Chemical solution.
 - b. By manual
 - c. All the above
20. **How to make surgical mask effect?**
- a. Put it in disinfectant
 - b. Change it between patient
 - c. Hold it from periphery
21. **Disadvantage of plastic reusable syringe is:**
- a. Distortion if autoclaved
 - b. Provide single hand aspiration
 - c. Light weight
22. **What is considered as universal precaution?**
- a. Considered all blood and body fluid harmful
 - b. Sterilization of critical instrument
 - c. Wearing mask
 - d. Wearing hand gloves
23. **From PPE:**
- a. Uniform
 - b. Mask

Section II: Topicwise Questions / Answers

24. *Needle stick injury, best reaction is:*
- a. Review patient history
 - b. Wash with water and soap
 - c. Record immediately
25. *Water supply dental unit (air water system) sterilization:*
- a. 10- 20 sec between patients
 - b. 20- 30 sec between patients.
 - c. 30- 40 sec between patients
 - d. 40- 50 sec between patients
26. *Surgeon wanted to sterilize a tray made from heat resistance plastic tray, how to disinfect according to infection control guide:*
- a. Dry heat oven
 - b. Moist heat
 - c. 2% Glutaraldehyde
 - d. Chemical
27. *Bacteria in community communicate with other bacteria with process called:*
- a. Quorum sensing
 - b. Bacteriazation
 - c. Spreading
 - d. Aerosal
28. *When effective time, what is the conc of ethanol alcohol to be affect on bacteria”*
- a. 60
 - b. 50
 - c. 70
 - d. 80
29. *What are the autoclaves used in dental office?*
- a. Autoclave system A
 - b. Autoclave system B
 - c. Autoclave system C
 - d. Autoclave system D
30. *Patient infected by anthrax after examination doctor should disinfect with:*
- a. 12% chlorohixiden
 - b. Antibacterial hand scrub
 - c. Non antimicrobial soap
31. *Patient has a bacterial disease after examination the doctor has to wash his hand using soap:*
- a. With alcohol
 - b. Non alcoholic
 - c. Plain soap
32. *Chemical process indicator:*
- a. Steam sterilized
 - b. Sterile
 - c. Clean
33. *The working surfaces in operation theatre should be disinfected especially for HIV, by using:*
- a. Savlon
 - b. Gamma radiation
 - c. Hypochlorite solution
 - d. UV light
34. *After the usage of the BP blade and needle tips, both should be disposed by:*
- a. Discharged paper box.
 - b. Designed sharp instrument special container.
 - c. Disinfectant solution then
 - d. Yellow container for infectious waste
35. *Which of the following is used for conditioning of resected root end?*
- a. Citric acid.
 - b. EDTA.
 - c. Phosphoric acid.
 - d. H₂O₂.
36. *All of the following are regard to dentist, who has needle brick of HBV patient during the dental procedure. except:*
- a. Allow wound to bleed don't scrub.
 - b. Wash with water then put plaster.
 - c. Consult immunological unit.
 - d. Pressure on the wound to stop bleeding

51. **Protocol for disinfection:**
- Inspection, cleaning, sterilization, storage
 - Initial inspection, cleaning, inspection, sterilization, storage
 - Cleaning, sterilization, storage
 - Sterilization, storage
52. **At the beginning of the operation day in the clinic, you should start the water/air spray for three minutes in order to get rid of which type of microorganisms:**
- Streptococcus mutans.
 - Streptococcus salivarius.
 - Staphylococcus aureus
 - Lactobacillus
53. **Which of the following organisms will be killed during the process of sterilization?**
- Bacteria and virus
 - Bacteria, virus, fungus and protozoa
 - Bacteria and fungus
 - Bacteria only
54. **What type of autoclave is used?**
- Hot oven autoclave
 - Class b autoclave
 - Class s autoclave
 - Class d autoclave
55. **Regarding instrument sterilization, protocol for CSSD of hospital is:**
- Sterilization, storage
 - Inspection, cleaning, sterilization, storage
 - Cleaning, sterilization, storage
 - Initial inspection, cleaning, inspection, sterilization, storage
56. **Reason to refresh the saliva ejectors to eradicate:**
- Pseudomonas aeruginosa
 - Spirochetes
 - Actinomyces
 - E. coli
57. **Most convenient and effective form of sterilization of dental instruments:**
- Boiling
 - Autoclave.
 - Hot air oven
 - Chemiclave
58. **Autoclave relative to 100°F in dry air oven:**
- The same time
 - Slightly higher time
 - Considerable higher time
 - Less time.
59. **Chemiclave uses a solution of:**
- 72% ethanol and 23% formaldehyde.
 - 72% ethanol and 0.23% formaldehyde.
 - 7.2% ethanol and 23% formaldehyde.
 - 7.2% ethanol and 2.3% formaldehyde.
60. **Mechanism of autoclave depending on:**
- Dry heat
 - Steam heat
 - Chemicals
 - Hot water
61. **Autoclave relative to hot air oven:**
- The same time
 - Less time
 - More time
 - Considerable higher time
62. **Why the moisture heat sterilization is better than hot air oven?**
- Makes the instruments less rusty and blunt
 - Needs more time and affects the proteins of the cell membrane
 - Needs less time and affects the proteins of the cell membrane
 - All the above

3. Infection Control in Dentistry

63. *Hot oven relative to to autoclave:*
- a. The same time
 - b. Slightly higher time
 - c. Considerable higher time
 - d. Lower time
64. *Which of the following tests is used for differentiate between Streptococcus?*
- a. Fermentation test
 - b. Catalase test
 - c. Amylase test
 - d. Sugar test
65. *The stock tray with handle solder at 175 degree will be best sterilize by.*
- a. Autoclave
 - b. Heat sterilization
 - c. Chemical sterilization
 - d. Ultraviolet chamber
66. *Which of the following is true about autoclave?*
- a. Autoclave prevents rusting of instruments
 - b. Autoclave is a cold temperature treatment
 - c. In autoclave heat is superheated
 - d. Autoclave took long duration
67. *Hot oven relative to autoclave:*
- a. The same time
 - b. Slightly higher time
 - c. Considerable higher time
 - d. Lower time
68. *Radial Walker test is*
- a. For disinfectant
 - b. For antibiotics
 - c. For dry heat sterilization
 - d. For moist heat sterilization
69. *Moist heat sterilization compared to dry heat sterilization works mainly on:*
- a. Kills bacteria by dissolving of cell wall
 - b. Coagulation and denaturation of protein
 - c. Corrosion products
 - d. Protein degeneration and oxidative damage
70. *Giving sufficient time the degree of ethanol alcohol disinfection:*
- a. 50%
 - b. 60%
 - c/ 70%
 - d. 80%
71. *Test for determinig the efficiency of sterilizing agent is:*
- a Fungi
 - b. Virus
 - c. Bacteria
 - d. Bacterial spores
72. *Sterilization means killing of:*
- a. Virus
 - b. Fungi
 - c. Bacteria
 - d. Virus, fungi, bacteria, bacteria spores
 - e. Virus, fungi, bacteria
73. *Autoclave relative to 100 degree temperature, in the dry oven:*
- a. The same time.
 - b. Slightly higher time.
 - c. Considerable higher time.
 - d. Less time.
74. *Which takes longer time in sterilization?*
- a. Dry heat
 - b. Moist heat
 - c. Chemiclave
 - d. None of the above

Section II: Topicwise Questions / Answers

75. *Staphylococcus aureus* are killed if exposure to moist heat at 60 degree C for:
- a. 20 minutes.
 - b. 30 minutes.
 - c. 50 minutes.
 - d. 60 minutes.
76. *Patient infected by anthrax after examination, doctor should disinfect with:*
- a. 12% chlorhexidine
 - b. Antibacterial hand scrub
 - c. Non antimicrobial soap
 - d. Running water hand wash
77. *Killing bacteria is:*
- a. Bacteriostatic
 - b. Bactericidal.
 - c. Sterilization
 - d. None of the above
78. *For autoclave sterilization, burrs can be protected by keeping them submerged in:*
- a. 2% Sodium nitrite.
 - b. 5.26% Sodium hypochlorite.
 - c. 2% Chlorhexidine.
 - d. 10.2% Sodium nitrates.



EXPLANATION

1. Answer: c
2. Answer: a
3. Answer: c
4. Answer: b
5. Answer: d
6. Answer: c

Reference: Damles' Textbook of Pediatric Dentistry, page 201

7. Answer: d

Reference: http://www.ada.org/sections/professionalResources/pdfs/cdc_sterilization.pdf

8. Answer: c
9. Answer: d
10. Answer: d
11. Answer: a
12. Answer: c
13. Answer: a
14. Answer: c

Normal chlorhexidine percentage must be 0.1-0.2%

15. Answer: a
16. Answer: a
17. Answer: a
18. Answer: a
19. Answer: c
20. Answer: b
21. Answer: a
22. Answer: a
23. Answer: b
24. Answer: b
25. Answer: b
26. Answer: b
27. Answer: a
28. Answer: c
29. Answer: b
30. Answer: b
31. Answer: a

Section II: Topicwise Questions / Answers

32. **Answer: a**

33. **Answer: c**

34. **Answer: b**

35. **Answer: b**

36. **Answer: d**

37. **Answer: c**

38. **Answer: d**

39. **Answer: c**

40. **Answer: a**

41. **Answer: b**

In autoclave the steam heat is producing under pressure. This will break the protein cell membrane of all microorganisms

42. **Answer: c**

43. **Answer: b**

44. **Answer: a**

45. **Answer: d**

46. **Answer: d**

Antiseptic soap, sometimes called antibacterial soap or anti-fungal soap, is regular soap in liquid or solid form that contains some kind of ingredient that reduces the chance of infection when applied to the skin. These products also have antimicrobial properties, meaning they kill or inhibit the growth of microbes like bacteria, virus, or fungi. Alcohol, triclosan, and tetrasodium EDTA are three antiseptics commonly used in soap, and they are all examples of antibacterial antiseptics, meaning they are proven to be effective against bacteria.

47. **Answer: a**

48. **Answer: d**

49. **Answer: b**

50. **Answer: d**

51. **Answer: b**

52. **Answer: b**

Dental high-speed turbines and handpieces can take up and expel microorganisms during operation and thus need regular sterilization. This study established a method for validating devices used to sterilize high-speed turbines and handpieces. The air and water channels and turbine chambers were contaminated with suspensions of *Streptococcus salivarius* orendospores of *Bacillus stearothermophilus*. The effect of flushing and/or autoclaving performed by a new device combining both procedures was evaluated by counting the number of viable bacteria recovered from these devices. Further, the effect on clinically used handpieces was evaluated. In an initial experiment, the device partially reduced *S. salivarius*, and the endospores survived. In a second experiment

53. **Answer: b**

54. **Answer: b**

55. **Answer: d**

3. Infection Control in Dentistry

56. **Answer: a**

The high volume suction line deposits on the inner wall of the evacuation line are mainly composed of heterogeneous microcolonies (arrows) composed principally of bacteria and extensive polysaccharide material and tissue debris. The majority of recovered bacteria are *Pseudomonas* species and staphylococci. The presence of recognizable cells and tissue elements in these biofilms shows that human material can persist in these systems for an extended period of time and can even be trapped within biofilms. Since some bloodborne pathogens can survive for a long time in the environment, these systems must be cleaned and disinfected after each patient.

57. **Answer: b**

58. **Answer: d**

59. **Answer: b**

Reference: Ingle's Endodontics, page 139

60. **Answer: b**

Mechanism of autoclave:

Autoclave uses saturated steam under pressure

Saturated steam enters the top of the chamber by a steam pressure control valve. As the steam enters, it pushes the air out through a trap in the drain line. Once all the air is evacuated, the trap closes. Steam continues to fill the autoclave chamber until a preset temperature and pressure is reached. Common autoclave operating conditions are 121 °C and 15 pounds per square inch gauge pressure (psig) for 15 to 20 min.

The sterilization procedure consists of three phases. These are the autoclave heat-up time, the contact time, and the cool-down time.

For large loads, a rule of thumb is that if a space greater than six inches is between each item, the run time can be set for the weight of the heaviest item; however, if the items are less than six inches apart, they are considered to be one

Item Weight (Lbs.)	Sterilization Time (Min.)
<5	30
5 – 15	60
>15	90

a. Sterilization Times Required for Given Weights of Solid Materials

61. **Answer: b**

62. **Answer: c**

63. **Answer: c**

(Hot dry oven : 160°C in 2 hours, 200°C in 1 hour.

Autoclave : 127°C in 15-25 minutes, 134°C 3-5 minutes.)

64. **Answer: a**

Fermentation – differential between types of streptococi

Catalase – streptococi activity

65. **Answer: a**

66. **Answer: c**

67. **Answer: c**

Section II: Topicwise Questions / Answers

68. **Answer: a**

69. **Answer: b**

70. **Answer: c**

Reference: http://www.cdc.gov/hicpac/disinfection_sterilization/6_0disinfection.html

71. **Answer: d**

72. **Answer: d**

73. **Answer: d**

74. **Answer: a**

75. **Answer: d**

Reference: Ananthanarayanan and Paniker's Textbook of Microbiology, page 26

76. **Answer: a**

77. **Answer: b**

78. **Answer: a**

Reference: Sturdevant's Art and Science of Operative Dentistry, page 372