CHRISTIAN MEDICAL AND DENTAL ASSOCIATION OF NIGERIA – STUDENTS' ARM (CMDA NIGERIA-STUDENTS)

UNIVERSITY OF ILORIN TEACHING HOSPITAL CHAPTER

400level Intro-A Pharmacology Mock, Jan. 2017

SECTION A T/F

1. Competitive antagonists reduce the potency of a drug
2. Noncompetitve antagonists reduce the efficacy of a drug
3. Partial agonists produce maximal efficacy
4. The lower the blood concentration of a drug, the higher the volume of distribution
5. Steady state concentration is inversely proportional to maintenance dose
6. Vesamicol is a drug that can block choline acetyltransferase
7. Acetylcholinesterase splits ACh into choline & Acetyl Co-A
8. Acetylcholinesterase can be found in red blood cells
9. Norepinephrine can be converted to epinephrine in certain areas of the brain
10. Reserpine causes depletion of transmitter stores
11. Metyrosine inhibits the enzyme tyrosine dehydrogenase
12. Loading dose does not depend on the elimination of a drug
13. Active transport is saturable, nonselective and inhibitable
14. Facilitated diffusion does not require energy
15. Methacholine has reduced potency at nicotinic receptors
16. Lobeline is well absorbed from most sites of administration
17. Most basic drugs are absorbed in the stomach
18. Subcutaneous route is safer than intravenous route of drug administration
19. Parasympathetic innervation of the ventricles is much less extensive than that of the atria
20. Parathion and malathion are echothiophates
21. Parasympathetic stimulation of GI sphincters leads to their relaxation
22. Cytochrome P450 isozymes are present in the golgi bodies of cells
23. Hydroxylation is an example of phase 1 biotransformation reaction
24. IV Pilocarpine may cause hypertension after a brief initial hypotensive response
25. Echothiophate is not well absorbed from the skin and gut
26. Pralidoxime is a cholinesterase regenerator after aging has occurred
27. Carbamates are reversible cholinesterase regenerator
28. Cevimeline is an indirect-acting muscarinic agonist for treatment of Sjogren's syndrome
29. Varenicline is effective for smoking cessation
30. Edrophonium does not enter the CNS
31. Scopolamine can be administered via the transdermal route
32. Scopolamine is fully distributed to the CNS
33. Atropine causes an irreversible blockade at muscarinic receptors
34. Salivary glands are the least sensitive to the effects of atropine
35. Phenytoin is a drug that undergoes zero order elimination
36. The therapeutic index cannot be determined from the quantal dose response curve
37. Ionization of drugs increases their lipid solubility
38. Hepatic disease increases the clearance of drug
39. Pralidoxime is not recommended for the reversal of inhibiton of acetylcholinesterase by carbamate inhibitors
40. Infants are less sensitive to the hyperthermic effects of atropine
41. Catecholamines are not active orally
42. Spironolactone is an example of suicide inhibitors
43. Midodrine can be used to ameliorate orthostatic hypotension
44. Clonidine can produce symptoms of dry mouth
45. Hypoglycemia is not a common complication of insulin therapy
46. Hypernatremia is an adverse effect of the drug chlorpropamide
47. Glyburide is a more potent agent than tolbutamide
48. Sedation is a side effect of α_2-selective agonists
49. Desglymidodrine is the prodrug of midodrine
50. Metformin does not bind to plasma proteins
51. Gastrointestinal toxicities of metformin are not dose related
52. Apraclonidine is approved for treating glaucoma
53. Phenylephrine forms a reactive ethyleneimonium intermediate
54. Alpha-receptor antagonists cause reflex tachycardia
55. Phenoxybenzamine exhibit blockade of histamine receptors
56. The major use of phenoxybenzamine is in the treatment of orthostastic hypotension
57. Terazosin is extensively metabolized in the kidney
58. Doxazosin has a longer half-life than prazosin
59. Ergotamine cause α-receptor blockade via partial agonism
60. Timolol is a β_2-selective drug with no partial agonist activity
61. Pheochromocytoma can be treated with α-methyltyrosine
62. Tachycardia is the most common adverse effect of β-blockers
63. Acarbose does not have significant effect on lactase & sucrase
64. GLP-1 suppresses insulin secretion & delays gastric emptying
65. The half-life of circulating insulin is 3 to 5 minutes
66. Canagliflozin increases the threshold for glycosuria
67. Metformin does not provoke hypoglycemia
68. Hypoglycemia is the major adverse effect of pramlintide
69. Pioglitazone does not exhibit PPAR-α activity
70. Insulin detemir is a long-acting insulin analog
71. K^+ are reabsorbed via paracellular pathways in the PCT
72. The water permeability of the DCT is very high
73. Thiazides block the $Na^+/K^+/2Cl^-$ cotransporter
74. Carbonic anhydrase inhibitors are not orally active
75. Acetazolamide causes metabolic acidosis
76. Acetazolamide decreases the pH of the CSF
77. Acetazolamide reduces renal potassium wasting
78. Ethacrynic acid is a sulfonamide derivative
79. Half-life of loop diuretics depend on hepatic metabolism
80. Loop diuretics inhibit the $Na^+/K^+/2Cl^-$ cotransporter
81. Furosemide causes hyperkalemic metabolic alkalosis
82. Furosemide can precipitate the attack of gout
83. Chlorothiazide is the only thiazide that is orally available
84. Thiazides block the Na^+/Cl^- transporter
85. Thiazides enhance Ca^{2+} reabsorption
86. Aldosterone antagonists cause metabolic alkalosis
87. Amiloride is not metabolized
88. Spironolactone has a rapid onset of action
89. Combination of triamterene with indomethacin can cause acute renal failure
90. ADH antagonist can cause central diabetes insipidus
91. Demeclocycline should be avoided in patients with liver disease
92. TRH can stimulate prolactin release
93. FSH acts through a G protein-coupled receptor
94. Growth hormone can cause mild hyperinsulinemia
95. Recombinant human IGF-I may cause hyperglycemia
96. Clonidine increases GHRH levels
97. Mecasermin contains rhIGFBP-3
98. Mecasermin cannot be administered subcutaneously
99. Hyperglycemia is an adverse effect of mecasermin
100. Pegvisomant is a growth hormone receptor agonist

101. Somatostatin also inhibits the release of TSH
102. Octreotide can reduce insulin secretion
103. Vit-B12 deficiency may occur with long-term use of octreotide
104. Toxicity of gonadorelin include flushing & headache
105. Large doses of iodine inhibit iodide organification
106. Dopamine antagonists suppress prolactin release
107. Oxytocin reduces the frequency and increase the force of uterine contractions
108. Oral conivaptan has affinity for both V_{1A} & V_2 receptors
109. Thyroxine is absorbed best in the duodenum and ileum
110. 5'-deiodinase converts T_4 to T_3
111. Goitrogens increase TSH level and cause goiter
112. Propylthiouracil is more potent than methimazole
113. Propylthiouracil is preferable in pregnancy
114. Propranolol may inhibit T_3 levels
115. Glucocorticoids increase serum glucose levels
116. Aminogluethimide increases the half-life of dexamethasone
117. Triamcinolone is a long-acting glucocorticoid
118. Metyrapone can be administered to pregnant women with Cushing's syndrome
119. Progestins can antagonize estrogen's effects on LDL and HDL
120. Estrogen therapy is associated with an increased risk of endometrial carcinoma
121. Diethylstilbestrol should be avoided during pregnancy
122. Protonated form of a weak acid is the neutral, lipid-soluble form
123. Weak bases are excreted faster in alkaline urine
124. Enzymes can serve as drug receptor
125. IP3 is responsible for activation of protein kinase C
126. IP3 is inactivated by dephosphorylation
127. The two major sites of drug elimination are the liver and lungs
128. Hydrophilic drugs have a high rate of absorption
129. About 50% of a drug administered per-rectum bypasses the liver
130. Hepatic disease prolongs the half-life of many drugs

SECTION B - MATCHING QUESTIONS

Choose the drug/statement from column B that correlates best with the statement in column A

I

COLUMN A

a. A non-selective adrenoceptor blocker with partial agonist activity
b. Direct acting cholinomimetic that is lipid soluble and is favoured in the treatment of glaucoma
c. Drug of choice in the treatment of anaphylactic shock
d. A drug that prevents storage of acetylcholine in its vesicle
e. Used to suppress premature labour
f. Can reduce the binding of aldosterone to its receptor
g. Osmotic agent used to reduce intracranial pressure
h. Used for the treatment of edema associated with heart failure
i. Used to treat nephrolithiasis
j. Causes hyperchloremic metabolic acidosis

COLUMN B

1. Prazosin
2. Ritodrine
3. Vesamicol
4. Norepinephrine
5. Spironolactone
6. Acetazolamide
7. Butoxamine
8. Isoproterenol
9. Labetalol
10. Furosemide
11. Reserpine
12. Metyrosine
13. Pilocarpine
14. Mannitol
15. Ethacrynic acid
16. Epinephrine
17. Propranolol
18. Hydrochlorothiazide
19. Physostigmine
20. Amiloride

II

COLUMN A

a. A post-coital contraceptive used to terminate pregnancy
b. Drug of choice for endometriosis
c. Orally active drug used to treat metastatic prostate cancer
d. Orally active semi-synthetic estrogen used in oral contraceptives
e. Antiestrogen used to induce ovulation
f. Main stimulant of estrogen release
g. Long acting progesterone implant
h. Drug of choice for maintenance therapy of hypothyroid patients
i. Inhibits 5α-reductase
j. Dopamine agonist that suppresses prolactin release

COLUMN B

1. Dinoprostone
2. Propylthiouracil
3. LH
4. Gonadorelin
5. Thyroxine
6. Finasteride
7. Somatotropin
8. Degarelix
9. Clomiphene
10. Oxytocin
11. Epinephrine
12. Methimazole
13. Androgens
14. Quinagolide
15. FSH
16. Bicalutamide
17. Danazol
18. Levonorgestrel
19. Atosiban
20. Mifepristone

III

COLUMN A

a. Phase I clinical trials
b. Phase IV clinical trials
c. Sodium-glucose co-transporter-2 inhibitor
d. Fastest route of absorption
e. CYP450 inhibitor
f. CYP450 inducer
g. A phase I metabolic reaction
h. Elimination of constant amount of drug per unit time
i. A measure of how well a drug produces response
j. Most common adverse effect of inhaled insulin

COLUMN B

1. Glucoronidation
2. Post-marketing surveillance
3. Closed/double blind
4. Intravenous
5. First-order elimination
6. Zero-order elimination
7. Ketoconazole
8. Acetaminophen
9. Phenytoin
10. Open/non blind
11. N-dealkylation
12. Partial agonism
13. Affinity
14. Cough
15. Efficacy
16. Hypoglycemia
17. Clearance
18. Inhalation
19. Exenatide
20. Canagliflozin