

FINAL COLLECTED QUESTIONS OF PHARMACOLOGY 018

1-Which one of the following is not affected by the compensatory baroreflex activation?

- A. The inotropic action.
- B. The chronotropic action.
- C. The positive dromotropic action.
- D. The cardiac output.
- E. The refractory period

2-High IV infusion rate of dopamine may cause all the following effects; EXCEPT:

- A. Vasodilation of renal vessels.
- B. Vasoconstriction effect.
- C. Positive dromotropic effect.
- D. Positive chronotropic effect.
- E. Positive Inotropic effect.

3-The drug used to produce sedation in initially intubated and mechanically ventilated patients during treatment in an intensive care setting, is:

- A. Clonidine.
- B. Guanfacine.
- C. Dexmedetomidine.
- D. Atomoxetine.
- E. Oxymetazoline.

4-The D1-receptor agonist used in the IV treatment of severe hypertension is:

- A. Terbutaline.
- B. Dobutamine.
- C. Methyldopa.
- D. Methoxamine.
- E. Fenoldopam.

5. When taken in large doses, one of the following vasoconstrictor drugs, may cause hypotension, because of a central clonidine -like effect. The drug is:

- A. Methoxamine.
- B. Guanfacine
- C. Oxymetazoline
- D. Phenylephrine
- E. Pseudoephedrine

6. A nonselective beta blocker/alpha-1 blocker and a calcium channel blocker, is:

- A. Labetalol
- B. Carvedilol
- C. Nebivolol
- D. Bisoprolol
- E. Metoprolol

For Questions 7- 11 Match the following drugs with their clinical uses.

- | | |
|--------------------|---|
| 7. Modafinil | A. Prevention of premature labor. |
| 8. Pseudoephedrine | B. Management of thyroid storm. |
| 9. Ritodrine | C. Treatment of narcolepsy. |
| 10. Trimethaphan | D. Nasal decongestant. |
| 11. Propranolol | E. Treatment of hypertensive emergencies. |

12-The beta blocker with the least effect on carbohydrate metabolism, is:

- A. Sotalol
- B. Timolol
- C. Propranolol
- D. Nebivolol
- E. Nadolol

13-The beta blocker that is not expected to cause an acute increase in total peripheral resistance is:

- A. Propranolol
- B. Atenolol
- C. Labetalol
- D. Bisoprolol
- E. Nadolol

14. The beta blocker that is less likely to cause bradycardia, is:

- A. Pindolol
- B. Carvedilol
- C. Timolol
- D. Sotalol
- E. Bisoprolol

15. The rate limiting step in the biosynthesis of NE is the:

- A. transport of tyrosine across the neuronal membrane.
- B. hydroxylation of tyrosine.
- C. decarboxylation of DOPA.
- D. hydroxylation of DOPA into dopamine.
- E. transport of dopamine by VMAT into the vesicles.

16. The muscarinic receptors on airway passages that promote bronchoconstriction are:

- A. M1 receptors.
- B. M2 receptors.
- C. M3 receptors.
- D. M4 receptors.
- E. M5 receptors.

17. Bioavailability is:

- A. The proportion of the administered dose of a drug which reaches the circulation
- B. The proportion of the dose of a drug which is absorbed from GIT
- C. The proportion of the dose of a drug which is free in plasma and not bound to plasma proteins
- D. Only important for the drugs which have a narrow safety margin.
- E. The proportion of a dose of the drug which is metabolized on its first passage in the liver

18. A drug that blocks the receptors of epinephrine without activating them:

- A. Partial agonist
- B. Physiologic antagonist
- C. Pharmacologic antagonist
- D. Chemical antagonist

E. Inverse antagonist

19. You noticed a decrease in the responsiveness of a drug with continued drug administration. Which of the following best describes this observation?

- A. Anaphylaxis
- B. Drug toxicity
- C. Drug tolerance
- D. Pharmacodynamics
- E. Pharmacokinetics

20. Therapeutic index is a measure of:

- A. Drug potency.
- B. Drug efficacy.
- C. Drug affinity to the receptor.
- D. Drug safety.
- E. Extent of drug metabolism.

21. Which of the following statements is incorrect?

- A. Empiric therapy is the treatment of an infection before specific culture information has been reported or obtained
- B. Prophylactic therapy is the treatment with antibiotic to prevent an infection
- C. Definitive therapy is the use of the most effective, least toxic, narrowest spectrum, and most cost effective agent
- D. Bacteriostatic means that the drug arrests the growth of bacteria at serum level achievable in the patient
- E. In general and as compared to bactericidal antimicrobials, bacteriostatic agents have narrow spectrum of activity

22. Which of the following statements is correct?

- A. If the patient is taking an antibiotic, it's OK to stop taking the medicine once he or she starts feeling better
- B. Keeping extra antibiotics around is a good idea in case the patient needs them at a future date
- C. Antibiotics kill only the bad bacteria that cause your illness
- D. The most narrow-spectrum antibiotics appropriate to the infection should be administered
- E. None of the above

23. The following antibiotics-chemotherapeutic agents are primarily bactericidal:

- A. Sulfonamides
- B. Aminoglycosides
- C. Tetracyclines
- D. Chloramphenicol
- E. Clarithromycin

24. The following statement about antimicrobial drugs is wrong:

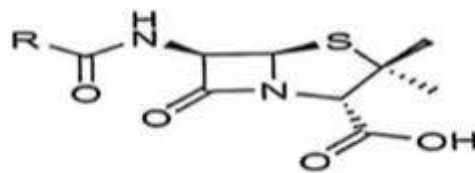
- A. When bacteriological services are not available, the choice of antibacterial drug may best be a single narrow spectrum one
- B. Combinations of antibacterials are sometimes useful to potentiate drug action e.g. penicillin + gentamicin
- C. Combinations of antibacterials are useful to prevent or delay development of resistance e.g. tuberculosis
- D. Chemoprophylaxis is justified to prevent recurrent attacks of rheumatic fever and in epidemics of meningococcal meningitis
- E. Bacterial resistance to antimicrobials can arise when naturally sensitive strains are eliminated, allowing naturally resistant organisms to proliferate

25. Drugs to avoid in G6PD deficient patients include:

- A. Nitrofurantoin
- B. Amoxicillin
- C. Sulfamethoxazole
- D. A and C
- E. All of the above

26. The basic backbone structure in the adjacent picture is for:

- A. A B-lactam antibiotic
- B. An aminoglycoside
- C. A tetracycline
- D. A 4-quinolone derivative
- E. A macrolide antibiotic



27. A 6 year old male child developed fever and generalized weakness. On examination of his throat, white follicles were observed, a swab was taken and bacteriological examination revealed Strep.hemolytic type A microbes. The first drug of choice to start the patient on would be:

- A. Phenoxy methylpenicillin= Penicillin V
- B. Amoxicillin
- C. Clarithromycin
- D. Cefaclor
- E. Erythromycin

28. If the patient described in the above question (7) is allergic to penicillins then he should be best managed by administration of:

- A. Phenoxy methylpenicillin= Penicillin V
- B. Amoxicillin
- C. Clarithromycin
- D. Cefaclor
- E. Erythromycin

29. Which of the following antibacterial agents has the widest antibacterial spectrum?

- A. Cefuroxime
- B. Imipenem
- C. Aztreonam
- D. Vancomycin
- E. Amoxicillin

30. Which of the following statements is correct?

- A. All oral penicillins are best given with food
- B. Vancomycin is only given intravenously
- C. Penicillin G can be given orally
- D. Penicillin V is more potent than penicillin G
- E. Cardiotoxicity is a characteristic side effect to quinolones

31. Which of the following cell wall inhibitors has no action against Gram-positive organisms or anaerobes?

- A. Amoxicillin
- B. Aztreonam
- C. Vancomycin
- D. Imipenem
- E. Cefazolin

32. Which of the following antibiotics has the greatest activity against Pseudomonal infections?

- A. Mezlocillin
- B. Piperacillin
- C. Ticarcillin
- D. Carbinicillin
- E. Amoxicillin

33. Which of the following cephalosporins has a broader G+ve spectrum of activity than all other cephalosporins:

- A. Cefoxitin
- B. Cefoperazone
- C. Cefepime
- D. Cefalexin
- E. Ceftaroline

34. Which of the following is a 3rd generation cephalosporin that has the best activity against *P. aeruginosa* infections:

- A. Cefixime
- B. Cephmandole
- C. Cefalexin
- D. Cefoperazone
- E. Cefepime

35. All of the following cephalosporins are excreted by the kidneys; EXCEPT:

- A. Cefoperazone
- B. Ceftriaxone
- C. Cefoxitin

D. Cefotetan

E. Cefaclor

36. Cilastatin is given with Imipenem in order to:

A. Improve absorption of Imipenem

B. Decrease the side effects of Imipenem

C. Improve Imipenem antibacterial spectrum

D. Protect Imipenem from fast metabolism

E. Have all of the above

37. All of the statements regarding clavulanic acid are true, EXCEPT:

A. It is an irreversible lactemase inhibitor

B. It is structurally related to penicillins

C. It is effective orally

D. It is often combined with ciprofloxacin to treat infections caused by beta-lactemase producing strains of *H. influenzae*

E. Alone, it has no antibacterial activity

38. Amoxicillin is combined with clavulnic acid in order to:

A. Improve absorption of amoxicillin

B. Decrease the side effects of amoxicillin

C. Improve the antibacterial activity of amoxicillin

D. Prolong amoxicillin half life.

E. Have all of the above

39. A bacterial cell wall inhibitor, only used topically because of its systemic toxicity:

A. Neomycin

B. Polymixin E = Colistin

C. Bacitracin

D. Iodine

E. Sulfacetamide

40. The following drug is effective in treatment of meningitis caused by *Haemophyllus influenzae* if administered orally:

A. Penicillin G

B. Gentamicin

C. Chloramphenicol

D. Ticarcillin

E. Cefepime

41. Pseudomembranous colitis has been reported following the use of:

- A. Penicillin G
- B. Penicillin V
- C. Flucloxacillin
- D. Cephalexin
- E. Clindamycin

42. The following antimicrobial may result in facial flushing, hypotension and tachycardia after rapid I.V. injection:

- A. Vancomycin
- B. Methicillin
- C. Gentamicin
- D. Cephalothin
- E. Cephmandole

43. All of the following are true regarding aminoglycosides; EXCEPT:

- A. They inhibit bacterial protein synthesis
- B. They are bactericidal
- C. They do not penetrate the BBB easily
- D. Dose adjustment is not necessary in patients with renal impairment
- E. They are ineffective orally in the management of meningitis

44. A patient is being treated with an antibacterial agent for an acute uncomplicated urinary tract infection. A significant inflammatory reaction of the skin and mucous membranes developed in the patient after using the drug. The mechanism of action of the antibacterial agent causing this condition is:

- A. Inactivation of transpeptidase
- B. Interference with mRNA and ribosomal function
- C. Prevention of the incorporation of PABA into folic acid
- D. Inhibition of bacterial gyrase
- E. Interference with the integrity of bacterial plasma membrane

45. Among the following antibiotics or chemotherapeutic agents, choose the one which best crosses the blood brain barrier:

- A. Penicillin
- B. Cephalosporins

- C. Chloramphenicol
- D. Sulfa drugs
- E. Macrolides

46. Which of the following groups of antibiotics are considered drugs of choice to treat *Mycoplasma pneumoniae*

- A. Penicillins
- B. Tetracyclines
- C. Sulfonamides
- D. Macrolides
- E. Quinolones

47. The combination of Trimethoprim and Sulfamethoxazole is especially useful because:

- A. Each drug targets different types of microorganisms
- B. Trimethoprim prevents crystallization of sulfamethoxazole in renal tubules
- C. The probability of drug resistance is greatly diminished
- D. Trimethoprim inhibits metabolism of sulfamethoxazole, and so will produce a synergistic effect
- E. The two drugs inhibit two different enzymes necessary for microbial folate synthesis

48. The rationale of combining Trimethoprim with Sulfamethoxazole in pharmaceutical preparations like for example Septrin® but not other Sulfa drugs is mainly due to the fact that Sulfamethoxazole:

- A. Is more efficacious than other Sulfas
- B. Is more potent and has good urine solubility than other Sulfas
- C. Is cheaper than other Sulfas
- D. Has similar $t_{1/2}$ to Trimethoprim
- E. all of the above properties

49. Which of the following antibiotics has (have) good activity against *Helicobacter pylori*:

- A. Amoxicillin
- B. Tetracyclines
- C. Clarithromycin
- D. A and C
- E. All of the above

50. Bacterial resistance has been reported to be rare with the use of which of the following antibiotics (due to multiple sites of action)?

- A. Chloramphenicol
- B. Nitrofurantoin
- C. Clindamycin
- D. Nalidixic acid
- E. Cefalexin

☀️ANSWERS :

1	A	11	B	21	E	31	B	41	E
2	A	12	D	22	D	32	B	42	A
3	C	13	C	23	B	33	E	43	D
4	E	14	A	24	A	34	D	44	C
5	C	15	B	25	D	35	B	45	C
6	B	16	C	26	A	36	D	46	B
7	C	17	A	27	A	37	D	47	E
8	D	18	C	28	E	38	C	48	D
9	A	19	C	29	B	39	C	49	D
10	E	20	D	30	E	40	C	50	B

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من عامل الله باليقين عامله بالمعجزات، اللهم لطفاً يحلُّ
على تفاصيل أيماننا فيغير مساراتها للأفضل .. 🙏☀️