

CHEMO

- (1) Write down the advantages and disadvantages of combination of various antibiotics with examples.
- (2) A 22 years old male patient is suffering from gonorrhoea for which he is prescribed penicillin G. Describe its antibacterial spectrum and adverse effects
- (3) Explain the basis for the concomitant use of penicillin and clavulanic acid.
- (4) Enumerate four drugs used for the treatment of infections caused by Methicillin resistant staphylococcus aureus (MRSA).
- (5) Classify Cephalosporins according to generations
- (6) A 5 years old boy presented with paroxysmal bout of non productive cough with a characteristic whoop for 5 days. He was prescribed a macrolide. What is MOA of this group of agents. Name two other group of drugs that bind to same target site
- (7) Give mechanism of action and adverse effects of ciprofloxacin
- (8) Enumerate Aminoglycosides. What are the basis of once daily dosing of this group of agents?
- (9) Write down the antibacterial spectrum of tetracyclines.
- (10) A 20 years old male is having an ulcer on his leg due to some fungus. What are various types of azoles which can be used against it
- (11) Write down the clinical uses and adverse effects of amphotericin B.
- (12) What are the advantages of using liposomal formulation of amphotericin B
- (13) Classify fluoroquinolones.
- (14) Write down the uses and adverse effects of Ciprofloxacin
- (15) What is cotrimoxazole? Write down its MOA and uses
- (16) A 30 years old lady came to medical OPD with H/o productive cough, low grade fever, anorexia and weight loss for the last 8 weeks. She was diagnosed as a case of pulmonary TB and was put on anti tubercular therapy (4 drugs)
- (17) Explain the basis of multi drug therapy for TB.
- (18) Write down four first line drugs in this case and their duration
- (19) What are the uses of Fluconazole?
- (20) Enumerate anti fungal which inhibit cell wall synthesis
- (21) What is HAART? Enumerate drugs used in this therapy
- (22) Write the MOA and uses of Interferons.
- (23) Write down the mechanism of action and side effects of aminoglycosides?
- (24) What are the side effects of Tetracyclines?
- (25) Antibacterial spectrum of Macrolides?
- (26) What are the different mechanisms of resistance against Penicillins?
- (27) Classify cephalosporins. How do they differ in antibacterial coverage
- (28) Classify Penicillins and their MOA ?
- (30) Write down uses of Cephalosporins?
- (31) Name B-lactamase inhibitors? Explain their Mechanism of Action.
- (33) Enumerate Aminoglycosides. Give Mechanism of Action & Adverse Effects of Aminoglycosides.
- (34) Classify Quinolones? Enumerate their Adverse Effects
- (36) Give bacterial spectrum of Macrolides?
- (37) Describe Adverse Effects of Chloramphenicol & Sulfonamides?
- (38) Enumerate anti cancer drugs that act as spindle poisons. What is their MOA
- (39) General A/E of anticancer drug - Methotrexate as anti cancer also write its uses & A/E
- (40) Uses and adverse effect of metronidazole. A/E of rifampicin
- (41) MOA of nystatin
- (42) Clinical uses cyclophosphamide and its toxic effect
- (43) MOA of alkylating agent
- (44) Classify anti microbial according to their MOA
- (45) What is Methotrexate? Explain MOA of Methotrexate. What is leucovorin rescue?
- (46) Write down the main toxicities of methotrexates and drug option to minimize them
- (47) Give Clinical uses and A/E effects of Chloroquine.

- e. Rifampicin *
 - f. Methotrexate *
 - g. Tetracyclines *
 - h. Cotrimoxazole
 - i. Amphotericin B
 - j. Ethambutol anti TB drug
 - k. Vinca alkaloids
 - l. Albendazole
4. Explain reason for:
 - a. Hemolysis occurring with Primaquine in G6PD deficient patient
 - b. Antagonism between Amphotericin-B and Fluconazole
 - c. Rescue therapy given with Methotrexate
 - d. Selectivity of action of Metronidazole for anaerobes
 5. Explain rationale for:
 - a. Combining Trimethoprim with sulfamethoxazole
 - b. Use of Cefazolin for surgical prophylaxis
 - c. Use of Benzathine penicillin for prophylaxis of rheumatic fever
 - d. Use of pyridoxine supplements with Isoniazid regimen
 6. Classify cephalosporins ****
 7. Name 1st line anti TB drugs ***** Give atleast one typical adverse effect of each
 8. Advantages of Isoniazid
 9. Describe Penicillin hypersensitivity and management of acute allergy *
 10. Drug treatment of chloroquine-resistant malaria*
 11. Name the drugs used in treatment of superficial fungal infections. Briefly describe their mechanism*
 12. Classify anti fungal drugs. Write a short note on Azole Anti-fungals
 13. Spectrum of activity of Fluconazole and Amphotericin B. Adverse effects of Azole anti-fungals
 14. Write short notes on:
 - a. MOA and resistance against Aminoglycosides and PK profile *
 - b. MOA and toxicity of Methotrexate ****
 - c. MOA and topical use of Miconazole
 15. Therapeutic classification of Anti helminthics. Agents effective against Nematodes and A.duodenale
 16. Tabulate differences between Aminoglycosides and Penicillins as a group
 17. Classify penicillins ***. Penicillin G is drug of choice for which infection
 18. Classify Fluoroquinolones. Ciprofloxacin is drug of choice for which infection
 19. Therapeutic classification of Anti-Malarials *
 20. Enumerate the drugs used in Hepatitis C infection. Give MOA of any one of them *
 21. Classification and MOA of Alkylating agents
 22. Enumerate the drugs of first choice and 2-3 A/Es of drugs used in:
 - a. Asymptomatic carrier state of E.hystolytica
 - b. Tinea saginata infection
 - c. Vaginal trichomoniasis
 - d. Herpes simplex infection in immunocompromised
 - e. Relapsing malaria by P.vivax
 23. Drugs for treatment of B.fragilis infection

CHEMOTHERAPY

1. Mechanism of action of :

- a. Acyclovir ***
- b. Metronidazole ***
- c. Chloroquine ***
- d. Vinblastin and vincristine anti-cancer (vinca alkaloids) **
- e. Fluoroquinolones **
- f. Cotrimoxazole *
- g. Rifampicin *
- h. Penicillins and other beta lactam anti biotics *
- i. Isoniazid
- j. Mebendazole
- k. Griseofulvin
- l. Clarithromycin
- m. vancomycin
- n. Ciprofloxacin
- o. Gentamicin
- p. Amphotericin-B as antifungal
- q. Albendazole
- r. Fluconazole

2. Therapeutic uses of :

- a. Metronidazole *****
- b. Rifampicin *****
- c. Chloroquine *****
- d. Cotrimoxazole ****
- e. Amphotericin B **
- f. Macrolides ** (also benefits of newer semi synthetic macrolides over erythromycin)
- g. Fluoroquinolones (ciprofloxacin) **
- h. Aminoglycosides *
- i. Acyclovir **
- j. 3rd generation cephalosporins *
- k. Interferons*
- l. Cephoperazone
- m. Gentamicin
- n. Doxycycline
- o. Fluconazole
- p. Vinca alkaloids *
- q. Methotrexate

3. Adverse effects of:

- a. Aminoglycosides *****
- b. Quinolones **
- c. Chloroquine *
- d. Metronidazole *

→ Antimalarial Classification

• Chloroquine (Mechanism, Adverse Effect)

→ Amabiasis Drug Classification

Quinine (Adverse Effect)

Mechanism
Clinical use
Adverse Effect.

→ Cancer Chemoh

(Classification)
Important

Table
Acute Adverse Effect (Complete)
Chronic Adverse Effect.

Chemotherapy imp questions

→ Classifications
 ↙ protein synthesis inhibitor
 ↘ Cell wall inhibitor.
 ↘ penicillin → MOA
 Adverse effects.

↓

Cephalosporins.

→ vancomycin
 ↙ MOA
 ↘ Clinical uses.
 Adverse effects.

→ Macrolides.

↓
MOA.

- Tetracycline
 ↙ Adverse.
 ↘ Clinical uses.

- Aminoglycosides → full chap imp. (PAE).

- Sulfonamides (Classification). Adverse effect
↓
uses.

• Trimethoprim.

- Cotrimazol : combination Sulfamathoxil trimethoprim
- Anti TB classification Mechanism Adverse Effect
isonazide
rifampine
- Antifungus classification Amphotericin (Adverse Effect Clinical use)
(Topical) Mechanism (Ketocho, terphenol)
(oral)
- Antiviral Classification (mini-) complete
- Rationale for combination antimicrobial therapy
(Clinical uses of Antimicrobial agent)