

ANTIBIOTICS

Essay

1. 40 yr old female admitted with c/o fever with chills and right loin pain since 5 days. She is known diabetic. Urine microscopy shows plenty of pus cells & GN bacilli. S. Cr moderately elevated. USS shows a/c pyelonephritis (May 22) 2+2+1+1
 - a. List 4 groups of drugs with eg used against GN organisms
 - b. Explain MOA & 2 ADR of each group
 - c. MOA of FQ
 - d. Antibiotics to be avoided in this patient
2. Classify beta lactam antibiotics. Explain the MOA, ADR, uses of ceftriaxone [2 +2+1+1] [July 18]
3. Classify cephalosporins. Explain the MOA, ADR, uses of third generation cephalosporins [2 +2+2] [Feb 17] (CBME 23 Jan)
4. List aminoglycoside antibiotics. Mention its four common properties and two adverse effects. [sep 15]
5. Classify cephalosporins. Describe the MOA and clinical uses of ceftriaxone. Which drug can be combined with amoxicillin to treat infection caused by beta lactamase producing staph aureus. [2+1+2+1] [feb 16]
6. 50 yr old lady c/o throat pain and has been diagnosed to have streptococcal tonsillitis. [oct 16]
 - a. Name 2 appropriate drugs for it
 - b. Name 2 bactericidal and bacteriostatic drugs
 - c. MOA- penicillins
 - d. ADR- aminoglycosides [1+1+2+2]
7. Enumerate the antibiotics which act by inhibiting cell wall synthesis. Mention the detailed mechanism of action of any one of them on bacterial cell wall synthesis. Add a note on beta lactamase inhibitors (2+2+2=6) [mar 14]
8. Classification of fluoroquinolones. Describe the mechanism of action, therapeutic uses and adverse effects of sparfloxacin. (2+2+2=6) [sep 14]
9. Classify FQ. Explain MOA, uses & ADR of FQ (2 +1+2+1) (Feb 20)
10. Enumerate macrolide antibiotics. Describe briefly its mechanism of action and mention four uses. Add a note on linezolid. (1+2+1+2=6) [apr 13]
11. A 20 years old pregnant woman developed a mild upper respiratory tract infection .She was given cap. Tetracycline 250mg thrice daily for three days.
 - Comment on the treatment for a mild bacterial infection.
 - Comment on the use of tetracycline in pregnancy.
 - If it was a severe infection, what will be your choice of antibiotic in a pregnant woman.(2+2+2=6) [sep 13]
12. Classify penicillins. Explain MOA, uses and ADR of penicillin G.
13. Classify antimicrobial agents based on MOA. Add a note on superinfection

Short notes

1. Doxycycline (May 22)
2. Antibiotic resistance (July 19)
3. Clarithromycin (Feb 19)
4. Gatifloxacin [sep 15]
5. Azithromycin [apr14]
6. ADR- aminoglycosides [sep 14][feb16]
7. Ciprofloxacin [apr 13][feb 18]
8. 2nd generation cephalosporins & its uses [sep 13]
9. Newer macrolides
10. ADR – ciprofloxacin
11. Cotrimoxazole(Feb21) (May 22)
12. Rx of typhoid fever
13. Linezolid

Rationale/pharmacological basis

1. Metronidazole + Ceftriaxone for brain abscess (Feb 20)
2. Imipenem and cilastatin (Feb 21) (May 22)
3. combining beta lactamase inhibitors with beta lactam antibiotics [feb 17]
4. Amoxicillin clavulanic acid combination therapy (Feb19)
5. Ampicillin + probenacid in Rx of gonorrhea
6. Doxycycline given instead of tetracycline in patients with impaired renal failure
7. Ampicillin + Gentamycin for infective endocarditis

Choose the drug & Justify:

1. Chloramphenicol / Ceftriaxone in typhoid fever (Feb 20)
2. Ciprofloxacin / Amoxicillin in UTI in pregnancy
3. Ciprofloxacin/ Norfloxacin in UTI (Feb21)

Write briefly

1. Rationale- combination of trimethoprim with sulfamethoxazole [feb 18]
2. Specify the important spectrum of ciprofloxacin [feb 17]
3. MOA- clarithromycin [feb 17]
4. MOA- cotrimoxazole [sep 15][feb16]
5. What is postantibiotic effect. Mention one eg? [oct 16]
6. What are streptogramins. Mention one use [oct 16]
7. 2 differences between tetracycline & doxycycline [apr 13]
8. Mention antipseudomonal penicillins [sep 13]

9. Important spectrum of Vancomycin [sep 14]
10. MOA- ciprofloxacin [feb 15]

Name 2 drugs

1. Drugs effective against both gram positive & gram negative organisms (Feb 19)
2. Brucellosis [sep15]
3. Burns infected with pseudomonas aeruginosa [sep 15]
4. Antibiotics given only parenterally [oct 16]
5. Typhoid fever [oct 16][feb 17]
6. Flouroquinolones [apr 14]
7. Antipseudomonal drugs [apr 14]
8. Chemoprophylaxis of surgical site infection [apr 13]
9. Pseudomembraneous colitis [sep 13]
10. HIV infection [sep 13]
11. UTI [sep 14]
12. Gram negative septicemia [sep 14]
13. 4th gen cephalosporins
14. Penicillinase resistant penicillins
15. Macrolide used in Hpylori infections
16. Macrolide used in MAC infections
17. Least nephrotoxic aminoglycosides
18. Highly nephrotoxic antibiotics
19. Topical sulfonamides
20. Antibiotic which stimulate motilin receptors/ having prokinetic axn
21. Anaerobic infections (July18)
22. Tetracycline with highest phototoxicity
23. Cephalosporin causing disulfiram reaction
24. Tetracycline used in leprosy
25. Beta lactamase inhibitors
26. Effective against Bacteroides fragilis

CHEMOTHERAPY

Essay

1. 25 yr old lady reported to hospital with c/o low grade fever since 10 days and weakness, fatigue, cough & expectoration since 1 month. Sputum +ve for AFB & CXR showed fibrotic changes in left upper lobe (FEB 19) (2+2+2)
 - a. Rx regime to be followed in this patient
 - b. MOA & ADR of Rifampicin
 - c. What would you advise if the lady was pregnant

(CBME 23 Jan) (15 marks)

- a. Enumerate the drugs. Discuss the regimen for this pt
 - b. Mx of MDR TB
 - c. Mention the benefits of combination of anti TB drugs
2. Mr Ramu 40 years presented with h/o fever with chills for past 2 days & diagnosed as a case of plasmodium falciparum malaria.
 - a. Prescribe for acute attack of plasmodium falciparum malaria
 - b. MOA of any one antimalarial drug
 - c. List 2 drugs for chemoprophylaxis of malaria [2+2+2] [feb 17]
3. Read the clinical problem and answer the following questions: A 28 years old woman having two children wanted to follow a contraceptive method. Patient was advised to take oral contraceptive pills. She is a known case of pulmonary tuberculosis for which she is on Rifampicin 450mg. INH300mg and ethambutol 300mg per day. [sep 15]
 - a. • What are the expected complications.
 - b. • Why.
 - c. • What will you suggest (2+2+2=6)
4. 40 years old man who was on metronidazole for amoebic dysentery went to a cocktail party where he consumed alcohol. After some time, he started developing symptoms like flushing, burning sensation, throbbing head ache, dizziness, tightness in chest, vomiting. [mar 14]
 - a. What is the reason for his symptoms
 - b. What are the other uses of metronidazole
 - c. What are the adverse effects produced by metronidazole (2+2+2=6)
5. Classify anti malarial drugs. Mention the adverse effects and therapeutic uses of chloroquine. (2+2+2=6) [sep 13] (feb 24)
 - a. Classify drugs used in Rx of malaria.explain MOA, ADR & dose of any one drug which drug is used for radical cure of acute vivax malaria. [feb 15]
 - b. (Feb21) .classify . why are CQ and primaquine combined? MOA, ADR, uses of chloroquine. 4 drugs used in CQ resistant malaria.
6. 60 yr oldwoman with diabetescomplains of thickening and yellowish discolorationofright big toe. Diagnosed as onychomycosis of toe nail.what are the drugs usefulinthis patient. explaintheMOA &ADR of onedrug [2+2+2][feb 18]
7. Classify anti TB drugs. MOA & 2 ADR of any one drug. Advantages of combination chemotherapy in Rx of TB. Add a note on DOTS.
8. 28 yr old woman was admitted in hospl with severe respiratory infection and Kaposi's sarcoma.her husband was diagnosed with acquired immune deficiency syndrome 6 months ago. Patient was diagnosed to be HIV virus positive on ELISA.
 - a. Name 3 groups of drugs with one eg each effective in this case
 - b. What are the typical ADR of each group of drugs
 - c. Patient missed her periods and pregnancy tes was +ve. Name the drug which prevents vertical transmission of AIDS

- d. What is the recommended regimen for AIDS
- e. What is the chemoprophylaxis and management of pneumocystis jiroveci infection
- 9. 30yr old patient c/o anorexia, weight loss ,fever and cough since 6 months. O/E HIV status is positive, CD4 count 150 /ml and viral load is 20000 copies/ml
 - a. List antiretroviral drugs
 - b. MOA & ADR of Zidovudine
 - c. DOC for pneumocystis carini pneumonia in HIV patients
 - d. Name any 2 drug regimens used for HIV infection

Short notes

1. Acyclovir (CBME 23 Jan)
2. Pharmacotherapy of UTI (CBME 23 Jan)
3. Oseltamivir (July 19)
4. Artemisinin derivatives (July 19)
5. Treatment of multidrug resistant tuberculosis (July 18)
6. Amphotericin B [feb 17] (CBME 23 Jan)
7. Protease inhibitors in HIV [feb 17] (feb 19)
8. Rifampicin [oct 16]
9. Artemisinin based combination therapy [ACT] in malaria [oct 16]
10. Metronidazole [apr 13] [sep 13]
11. Ivermectin [sep 13] (Feb21)
12. Therapeutic uses and ADR of Rifampicin [sep 13]
13. Uses of chloroquine [feb 16]
14. Albendazole [feb 18] (CBME 23 Jan)
15. Broad spectrum anthelmintics
16. DEC
17. Fluconazole [feb 15]
18. Itraconazole (July18)
19. Lepra reaction [feb 15]
20. Chloroquine [feb 20]
21. Griseofulvin [Feb 20]
22. Quinine
23. Short course chemotherapy in TB
24. Zidovudine
25. Ketoconazole
26. Rx of filariasis
27. Topical antifungals
28. Protease inhibitors in HIV
29. Dapsone

Two uses & 2 ADR

1. Amphotericin B (Feb21)
2. Acyclovir (Feb21)
3. Levamisole (Feb21)
4. Mebendazole [feb 20]
5. Metronidazole (Feb 19)
6. Chloroquine (Feb 19)
7. **Clofazimine** (Jul 19)
8. INH (Jul 19)

Choose the drug & Justify :

1. Griseofulvin / Miconazole in Candida albicans (Feb 19)
2. 3rd / 4th gen CS for MRSA infection – wrong Q? (Jul 19)
3. Fluconazole/ ketoconazole for fungal meningitis (Jul 19)

Pharmacological basis:

1. primaquine in plasmodium vivax (May 22)
2. NH and pyridoxine (Feb21)
3. Multidrug therapy of tuberculosis [feb 20]
4. Sulphadoxine and pyrimethamine in malaria [Feb 20]

Write briefly

1. Low dose ritonavir (July 18)
2. Comment on the interactions produced by OCP and Rifampicin [feb 17]
3. Comment on the interaction between itraconazole & omeprazole [sep 15]
4. 2 differences between ketoconazole and fluconazole [oct 16]
5. 4 uses of metronidazole
6. Radical cure in plasmodium vivax infection [apr 14]
7. 2 uses & 2 ADR of fluconazole [sep 13]
8. Uses of azole antifungals [feb 16]
9. Uses of clofazimine [feb16]
10. MOA- oseltamivir [sep 13]
11. 4 ADR of rifampicin [apr 13]
12. MOA- acyclovir [apr 13]
13. Rx of MDR falciparum malaria [apr 13]
14. Rationale for combining furazolidone with metronidazole in amoebic dysentery
15. Rationale for the use of pyridoxine with INH
16. Management of lepra reaction
17. Uses of albendazole
18. Prevention of vertical transmission of HIV [feb 15]

Name 2 drugs

1. Antileprotic drugs (CBME 23 Jan)
2. Drugs for PMC (CBME 23 Jan)
3. Neuraminidase inhibitors (May 22)
4. Causing peripheral neuritis (July 18)
5. Herpesvirus infection (July 18)
6. Mycobacterium avium complex [feb 17]
7. Herpes zoster infection [feb 17]
8. Dermatophytosis [sep 15]
9. H1N1 viral infection [sep 15]
10. Intestinal amoebiasis [sep 15]
11. Extraintestinal amoebiasis [feb 15]
12. Amoebic liver abscess [feb 18]
13. Luminal amoebicides (May 22)
14. Rx of ascariasis [feb 15]
15. Treatment of onchocerciasis[feb16]
16. NNRTIs [feb16] [feb 20]
17. Rx of MDR TB [feb 16]
18. Hookworm infestation [sep 15][feb 18]
19. Roundworm infestation [oct 16] (Jul 19)
20. Chemoprophylaxis in tuberculosis [oct 16]
21. Antiretroviral drugs [oct 16] (CBME 23 Jan)
22. Protease inhibitors {feb 18}
23. Topical antifungals [apr14]
24. 1st line antitubercular agents [apr 14]
25. Systemic antifungal agents [apr 13]
26. Prevention of AIDS in newborn [apr 13]
27. Rx of amoebiasis [from 2 different groups] [apr 13][feb 17]
28. Lepa reactions [apr 13] (Jul 19)
29. Filariasis [sep 13][July18] (CBME 23 Jan)
30. Multibacillary leprosy [sep 13]
31. HIV infection [sep 13]
32. Anti TB drug causing optic neuritis
33. Rx of pneumocystis jiroveci infection [feb15]
34. Antiviral drug used to prevent CMV retinitis
35. Antifungal used for fungal meningitis
36. To prevent vertical transmission in HIV
37. Rx of scabies (Jul 19)
38. Rx of ascariasis
39. Chloroquine resistant malaria (July 18)
40. Radical cure of vivax malaria

41. Cerebral malaria

Cancer , Immunosuppressants, misc

Essay

1. Classify anticancer drugs. MOA, ADR & uses of methotrexate
2. Ramu, a 35 year old male is suffering from end stage kidney disease. His brother has come forward to donate his kidney for Ramu. What immunosuppressant drugs are required to inhibit rejection of transplanted kidney. Explain the mechanism of action and side effects of cyclosporine (2+2+2) (July 18)

Short notes

1. Mx of iron poisoning (CBME 23 Jan)
2. Alkylating agents (May 22)
3. Tacrolimus (Jul 19)
4. Methotrexate [oct 16][feb 16][feb 17] (Feb 19) (CBME 23 Jan)
5. Vinca alkaloids [apr 14][feb 20]
6. Cyclophosphamide [apr 13] (Feb 21)
7. Thalidomide [Feb 18]
8. Desferrioxamine [July 18]
9. Interferon
10. Cisplatin
11. Bleomycin
12. Anticancer antibiotics
13. Antimetabolites
14. 5 fluorouracil

Write briefly

1. PB – Desferrioxamine in iron poisoning (Feb 21)
2. Folic acid/ folinic acid in methotrexate poisoning (Feb 21)
3. Rationale for the use of folinic acid in methotrexate toxicity [sep 15]
4. Pharmacological basis for the combined use of drugs in cancer chemotherapy.[sep 15]
5. Antiseptics [apr 14]
6. What is an antiseptic. Mention 2 examples (July 18)
7. Why mesna is given simultaneously with cyclophosphamide [feb 18]
8. Penicillamine [feb 18]
9. PB – Penicillamine in Wilson's disease (Feb 19)
10. 2 uses of methotrexate [July 18]
11. 2 uses, 2 ADR- Calciopetriol [feb 20] Dimercaprol (May 22)

Name 2 drugs

1. Immunostimulants (CBME 23 Jan)
2. Immunosuppressants(Feb21)
3. Drugs for Psoriasis (Jul 19)
4. Vinca alkaloids in cancer chemotherapy (Feb 19)
5. Calcineurin inhibitors [apr 14]
6. Enzyme used in cancer chemotherapy
7. Antimetabolites
8. Cell cycle specific anticancer drugs[feb15]
9. Antimalignancy drugs producing gouty arthritis
10. *Monoclonal antibodies [feb 16]*
11. *Anticancer antibiotics [feb 16]*
12. *Chelating agents [feb 16]*
13. Acne vulgaris [feb 17]
14. Antitumour antibiotics [feb 18]
15. Live attenuated vaccines (July 18)
16. Anti seborrhoeic agents (Feb 19)