

*Totalization by topic:*  
**ANTIMICROBIAL ANTIPARAZITARY ANTIHELMINTHIC  
DRUGS**

**A. Self-training questions:**

- 1 Antiseptics and disinfectants: definition, classification by chemical structure, mechanisms of action.
- 2 Metal compounds. Mechanisms of action, effects, indications. Local action (astringent, irritating and cauterizing).
- 3 Halogen compounds. Classification. Chlorine drugs: mechanism of action, effects, indications, side effects. Iodine drugs: classification. mechanism of action, effects, indications, side effects.
- 4 Oxidants. Mechanism of action, effects, indications, side effects of hydrogen peroxide and potassium permanganate.
- 5 Detergents: classification. Anionic and cationic detergents: mechanism of action, effects, indications.
- 6 Aldehydes: mechanism of action, effects, indications.
- 7 Phenols: mechanism of action, effects, indications.
- 8 Colorants: classification, mechanism of action, the particularities of use.
- 9 Acids and bases. Volatile oils. The mechanism of action. Indications.
- 10 10. Bisguanides: mechanism of action, effects, indications.
- 11 Alcohol: mechanism of action, effects, indications.
- 12 Classification of antibiotics by chemical structure, mechanism of action, spectrum of action, type of antibacterial action.
- 13 Beta-lactam antibiotics. Classification. Penicillins: classification, spectrum and mechanism of action, indications, adverse reactions, pharmacokinetics.
- 14 Cephalosporins: classification, spectrum and mechanism of action, indications, adverse reactions, pharmacokinetics.
- 15 Carbapenems and monobactams: spectrum and mechanism of action, indications, side effects, pharmacokinetics.
- 16 Macrolides: classification, spectrum and mechanism of action, adverse reactions, pharmacokinetics.
- 17 Lincosamides: spectrum and mechanism of action, indications, adverse reactions, pharmacokinetics.
- 18 Aminoglycosides: classification, spectrum and mechanism of action, indications, adverse reactions, pharmacokinetics.
- 19 Tetracyclines: classification, spectrum and mechanism of action, indications, adverse reactions, pharmacokinetics. Particularities of use in children.
- 20 Amphenicol derivatives: spectrum and mechanism of action, indications, adverse reactions, pharmacokinetics. Particularities of use in children.
- 21 Glycopeptides: spectrum and mechanism of action, indications, dosing principle, adverse reactions, pharmacokinetics.
- 22 Polymyxins: spectrum and mechanism of action, indications, adverse reactions.
- 23 Bacterial resistance to antibiotics. Forms of resistance. Genetic and biochemical mechanisms of appearance and ways of fighting.
- 24 Principles of antibiotic association. Antagonism and synergism. Basic indications for antibiotic association.

- 25 Classification of sulfonamides, spectrum and mechanism of action, indications, contraindications and adverse reactions , pharmacokinetics
- 26 Combined sulfanilamides. Composition. Spectrum and mechanism of action. Indications, contraindications, side effects, pharmacokinetics.
- 27 Nitrofurantoin derivatives, spectrum and mechanism of action, indications and side effects.
- 28 Naphthylidene and quinolones derivatives. Non-fluorinated quinolones: spectrum and mechanism of action, indications, pharmacokinetic.
- 29 Fluoroquinolones: classification, spectrum and mechanism of action, indications, contraindications, side effects, pharmacokinetics.
- 30 Nitroimidazole derivatives. Classification, spectrum and mechanism of action, indications and side effect, pharmacokinetics.
- 31 Oxazolidinones: spectrum and mechanism of action, indications, side effects, pharmacokinetics.
- 32 8-Oxynquinoline derivatives. Classification. Spectrum and mechanism of action. Indications and side effects.
- 33 Quinoxaline derivatives. Spectrum and mechanism of action. Indications and side effect.
- 34 Classification of anti-tuberculosis drugs by origin and use. Mechanisms of action.
- 35 Ansamycin antibiotics as anti-tuberculosis drugs: spectrum and mechanism of action, indications, contraindications, side effects, pharmacokinetics.
- 36 Hydrazines as anti-tuberculosis: spectrum and mechanism of action, indications, contraindications, side effects, pharmacokinetics.
- 37 Anti-leprotic drugs: classification and mechanisms of action. 1.Classification of antiprotozoal drugs.
- 38 Classification of antiprotozoal drugs. Drugs used in malaria: classification, mechanisms of action, indications.
- 39 Drug used in amebiasis: classification, mechanisms of action, characteristic.
- 40 Drug used in trichomonadosis: classification, mechanisms of action, characteristic.
- 41 Drug used in lambliaosis: classification, mechanisms of action, characteristic.
- 42 Drug used in toxoplasmosis: classification, mechanisms of action, characteristic.
- 43 Drug used in trypanosomiasis: classification, mechanisms of action, characteristic.
- 44 Drug used in pneumocystodosis: classification, mechanisms of action, characteristic.
- 45 Classification of antyhelminthic drugs. Drug used in intestinal nematodes: mechanisms of action, indications, contraindications, adverse reactions, pharmacokinetics.
- 46 Dugs used in intestinal cestodes: mechanisms of action, indications, contraindications, side effects, pharmacokinetics.
- 47 Drug used in extra-intestinal helminthiasis: mechanisms of action, indications, side effects, pharmacokinetics.
- 48 Drugs used in the treatment of syphilis, leptospirosis and recurrent typhus: mechanisms of action, indications, adverse reactions.
- 49 Classification of antiviral drug according to the type of virus (clinical use).
- 50 Influenza antiviral drugs: classification, spectrum and mechanisms of action, indications, side effects.
- 51 Anti-herpetic antiviral drugs: classification, spectrum and mechanisms of action, indications, side effects.
- 52 Antiretroviral antiviral drugs: classification, spectrum and mechanisms of action, indications, side effects.

- 53 Antiviral drugs active against hepatitis B: classification, mechanisms of action, indications, side effects.
- 54 Antiviral drugs active against hepatitis C: classification, spectrum and mechanisms of action, indications, side effects.
- 55 Interferons: types, mechanism of action, pharmacological properties, indication, side effects. Interferon inducers (interferonogens). Recombinant interferons.
- 56 Antiviral drugs used in infections with adenoviruses, papillomaviruses, coronarviruses: mechanisms of action, indications, side effect.
- 57 Classification of antifungal drugs. Mechanisms of action.
- 58 Antimycotic antibiotics: spectrum and mechanism of action, indications, side effects, pharmacokinetics.
- 59 Imidazole derivatives: spectrum and mechanism of action, indications, side effects, pharmacokinetics.
- 60 Echinocandins as antifungal agents: spectrum and mechanism of action, indications, side effects, pharmacokinetics.

## **B. Independent work**

### **Questions on medical prescription.**

#### **To prescribe the following drugs in all possible medicinal forms:**

**Antiseptics:** Drug Name. 1. Nitrofuril. 2. Silver nitrate. 3. Zinc sulphate. 4. Chloramine B. 5. Iodine solution 5%. 6. Hydrogen peroxide solution. 7. Potassium permanganate. 8. Alcohol. 9. Boric acid. 10. Ammonia solution. 11. Green brilliant. 12. Chlorhexidine. 13. Cetylpyridinium. 14. Ethacridine lactate. 15. Hexamethylenetetramine.

**Antibiotics:** Drug Name. 1. Sodium benzylpenicillin. 2. Benzyl benzylpenicillin. 3. Ampicillin. 4. Azlocillin. 5. Azithromycin. 6. Lincomycin. 7. Clindamycin. 8. Gentamicin. 9. Cefotaxime. 10. Cefuroxime. 11. Cefepime. 12. Cefixime. 13. Meropenem. 14. Aztreonam. 15. Clarithromycin. 16. Amicacin. 17. Phenoxymethylpenicillin. 18. Augmentin. 19. Amoxicillin. 20. Tetracycline. 21. Doxycycline. 22. Chloramphenicol. 23. Polymyxin-M sulphate. 24. Rifampicin. 25. Fucidin. 26. Vancomycin.

**Synthetic chemotherapeutics:** Drug Name. 1. Sulfaethidole. 2. Sulfadimethoxine. 3. Sulfalene. 4. Cotrimoxazole. 5. Furazolidone. 6. Nalidixic acid. 7. Ofloxacin. 8. Metronidazole. 9. Nitroxoline. 10. Linezolid. 11. Ciprofloxacin. 12. Sulfasalazine. 13. Phthalylsulfathiazole. 14. Nitrofurantoin. 15. Mesalazine. 16. Sulfacetamide.

**Antivirals:** Drug name. 1. Rimantadine. 2. Oseltamivir. 3. Acyclovir. 4. Foscarnet. 5. Zidovudine. 6. Interferon-alpha. 7. Lopinavir. 8. Ritonavir. 9. Lamivudine. 10. Ribavirin.

**Antimycotic:** Drug name. 1. Amphoteracin B. 2. Nystatin. 3. Clotrimazole. 4. Griseofulvin. 5. Caspofungin.

**Antituberculosis drugs:** 1. Isoniazid. 2. Ethambutol. 3. Rifampicin. 4. Streptomycin. 5. Sodium aminosalicilate. 6. Levofloxacin. 7. Difenilsulfon. 8. Solasulfone. 9. Pyrazinamide.

**Antiprotozoics:** 1. Chloroquine. 2. Metronidazole. 3. Trichomonacide. 4. Furazolidone. 5. Pyrimethamine. 6. Doxycycline. 7. Pentamidine. 8. Solusurmine. 9. Clarithromycin. 10. Cotrimoxazole.

**Anthelmintic** 1. Levamisole. 2. Mebendazole. 3. Pyrantel. 4. Niclosamide. 5. Diethylcarbamazine. 6. Praziquantel. 7. Niridazole. 8. Emetine hydrochloride. 9. Pyrvinium pamoate. 10. Ivermectin. 11. Albendazole.

**Medicines used in (for):**

**Antibiotics:** rheumatic prophylaxis, pneumonia, gangrene, anthrax, tetanus, syphilis, meningitis caused by *H. influenzae*, infections caused by *Ps. aeruginosa*, infections caused by *Bac. fragilis*, osteomyelitis, protein infections, benign penicillin resistant staph infections, methicillin-resistant staphylococcal infections, salmonellosis, pseudomembranous colitis, abdominal typhus, bacterial meningitis, tuberculosis, urinary tract infections, exanthemous typhus, bacterial dysentery, Chlamydia infections, infections caused by Enterococci.

**Antiseptics and disinfectants:** sputum disinfection, disinfection of instruments, treating water to make it potable, hand processing, wound flushing, processing the operator field, conjunctivitis treatment, hyperhidrosis, primary wound processing, prophylaxis of newborn blenorhea, pneumonia, dysentery, conjunctivitis, urinary tract infections, infection caused by *Ps. aeruginosa*, infection caused by *Bac. fragilis*, non-specific ulcerative colitis, trichomoniasis, severe purulent infection, infections caused by actinomycetes, infections caused by pneumocystis, atypical infections, infections caused by toxoplasmas, nocardiosis, anaerobic infections, protozoan infections, tuberculosis, pseudomembranous colitis, staphylococcal and streptococcal infections with polyresistance.

**Antivirals:** influenza prophylaxis, prophylaxis and treatment of influenza A and B (atypical), herpetic keratitis, skin and oro-facial herpes infections, systemic herpes infections, varicella-zoster infections, cytomegalovirus infections, viral hepatitis C, viral hepatitis C, infections with retroviruses.

**Antimycotic** Systemic mycoses, dermatomycosis, mycotic meningitis, onychomycosis, digestive candidiasis, vaginal candidiasis, skin candidiasis.

**Antispirochetosis, antituberculosis and anti-leprosy:** syphilis treatment, prophylaxis of syphilis relapses, treatment of leptospire, recurrent typhus, tuberculous meningitis, tuberculosis prophylaxis, active pulmonary tuberculosis, extensive drug-resistant tuberculosis, leprosy.

**Antiprotozoics:** malaria treatment, individual prophylaxis of malaria, social prophylaxis of malaria, relapse prophylaxis of malaria, amebiasis of different location, amebiasis in lumen and wall of the intestine, tissular amebiasis, lambliosis, trichomoniasis, toxoplasmosis, balantidiasis, leishmaniosis, pneumocystosis.

**Anthelmintics:** ascariasis, enterobiasis, tricocefalosis, ancylostomiasis, strongyloidiasis, teniasis, botriocefalosis, taeniarhynchosis, extra-intestinal helminthiasis.