

General medicine

General Pharmacology

1. What is pharmacology. Subdivisions of pharmacology.
2. Historical development of pharmacology. Drug names.
3. Basic principles of pharmacokinetics: Mechanisms of drug passage across the membranes.
4. Bioavailability. Factors influencing bioavailability.
5. Routes of drug administration – enteral administration
6. Routes of drug administration – parenteral administration
7. Absorption of drugs.
8. Distribution of drugs.
9. Drug metabolism.
10. Drug excretion.
11. Changes of drug action after repeated application (accumulation, tolerance, tachyphylaxis)
12. How drugs act; Receptors - definition and principles of action
13. Harmful effects of drugs. Therapeutic index.
14. Drug allergy.
15. Drug abuse and dependence.
16. Effects of age, sex and disease on drug disposition.
17. Genetic factors influencing drug action.
18. Drug interactions.
19. Specific and non-specific therapy of intoxications.
20. Discovery of drugs. Evaluation of drugs.

Special Pharmacology

1. Basic principles in peripheral neurotransmission.
2. Pharmacological effects of adrenergic neurotransmitters.
3. Drugs affecting adrenergic neurotransmission. Adrenergic agonists
4. (sympathomimetics).
5. Adrenergic antagonists (sympatholytics).
6. Acetylcholine as a cholinergic neurotransmitter.
7. Cholinergic agonists (parasympathomimetics).
8. Cholinergic antagonists (parasympatholytics).
9. Ganglionic blocking agents and peripheral myorelaxants.
10. Basic principles in CNS neurotransmission.
11. Classical (typical) antipsychotic drugs
12. Atypical antipsychotic drugs.
13. Antidepressants.
14. Antianxiety and hypnotic drugs.
15. Stimulants of CNS.
16. Antiepileptics.
17. Antiparkinsonics.
18. Analgesic and antipyretic drugs.
19. Nonsteroidal antiinflammatory drugs.
20. Drugs used to treat gout and rheumatoid arthritis.

21. Opioid analgesics.
22. Symptoms and therapy of opioid analgesic poisoning
23. Local anaesthetics.
24. General anaesthetics.
25. Cardiac glycosides.
26. Antianginal drugs.
27. Antidysrhythmic drugs.
28. Diuretics.
29. Antihypertensive drugs.
30. Lipid-lowering drugs.
31. Antitussives
32. Antiasthmatics with bronchodilatory effect
33. Antiasthmatics with anti-inflammatory effect
34. Drugs used to treat gastric ulcer.
35. Laxatives.
36. Antidiarrhoeal drugs
37. Mechanism of action of antibiotics, resistance, classification.
38. Natural (classic) penicillins.
39. Penicillins with broader spectrum.
40. Cephalosporins.
41. Aminoglycosides. Glycopeptides.
42. Tetracyclines and chloramphenicol.
43. Macrolides, lincosamides.
44. Sulphonamides and quinolones.
45. Antimycobacterial agents.
46. Antiviral drugs
47. Antifungal drugs.
48. Antiprotozoal and antihelmintic drugs.
49. Drugs used in the treatment of neoplastic diseases (classification, adverse reactions).
50. Drugs used for the treatment of neoplastic diseases – alkylating agents, antimetabolites
51. Drugs used for the treatment of neoplastic diseases – anticancer antibiotics, alkaloids
52. Drugs used for the treatment of neoplastic diseases – biological and hormonal treatment.
53. Immunosuppressants and immunomodulators.
54. Histamine-antihistaminics. Antiserotonic drugs. Antivomiting drugs.
55. Drugs used to treat thyroid gland dysfunction.
56. Female sex hormones, oral contraceptives.
57. Male sex hormones, anabolics
58. Glucocorticosteroids and mineralocorticosteroids.
59. Insulin and its analogues.
60. Oral antidiabetic drugs.
61. Anticoagulants.
62. Antiaggregatory drugs.
63. Fibrinolytics, antianaemic drugs.