

General pharmacology 2020

1. Pharmacology, sub-branches, origin of drugs, drug names.
2. Types of pharmacotherapy, rules of rational and safe pharmacotherapy. The question of drug misuse.
3. Preclinical and clinical trials, stages.
4. Basic legislation related to drug use, Sources of information on drugs and medicinal products.
5. Solid and gaseous pharmaceutical drug dosage forms - overview and their influence on pharmacokinetics and pharmacodynamics.
6. Semi-solid and liquid pharmaceutical drug dosage forms - overview and their influence on pharmacokinetics and pharmacodynamics.
7. Routes of drug administration – overview, characteristics.
8. Drug absorption, presystemic elimination, drug bioavailability.
9. Drug distribution, volume of distribution, redistribution. General principles of drug movement through the body.
10. Drug elimination, processes of the first and zero order, drug accumulation.
11. Drug biotransformation – stages, examples.
12. Drug excretion (ways of excretion, possibilities of their influence).
13. Therapeutic monitoring of drugs (TDM).
14. Pharmacokinetics of single, repeated and continual drug administration.
15. Modes of drug action
16. Inhibition and induction of enzymes in pharmacokinetics and pharmacodynamics of drugs – examples.
17. Synergism and antagonism in drug effect (pharmacokinetics, pharmacodynamics).
18. Dose – response curves, types of doses, drug anamnesis, patient's adherence.
19. Adverse drug reactions (types, categories, examples).
20. Pharmacovigilance, drug safety.
21. Primary resistance of the patient to the treatment. Influence of repeated administration on drug efficacy - examples of tolerance and tachyphylaxis.
22. Factors influencing the drug effect – examples.
23. Pharmacotherapy in elderly, the influence of co-morbidities on drug effect, polypharmacy.
24. Pharmacotherapy in pediatric population, in breastfeeding women. Drugs influencing breast feeding.
25. Pharmacotherapy in pregnancy, drug teratogenicity.
26. Pharmacogenetics, influence of genetic polymorphisms on pharmacokinetics and pharmacodynamics of drugs.
27. Drug interactions - overview, examples.
28. Principles of biological treatment – classification, technology, examples of clinical use.

1. Sympathomimetics - overview of single classes and their indications, examples of drugs
2. Sympatholytics - overview of single classes and their indications, examples of drugs
3. Cholinomimetics
4. Cholinolytics
5. Antispasmodics - GIT + UGT
6. Opioid analgesics
7. NSAIDs, non-opioid analgesics, antimigraine agents
8. Antiuratics, antirheumatics incl. DMARDs
9. General anesthetics
10. Local anesthetics
11. Muscle relaxants
12. Antidiabetics (except insulins)
13. Insulins
14. Sex hormones and hormones of H-P axis
15. Uterotonics and tocolytics
16. Glucocorticoids
17. Immunostimulants + immunosuppressants (except glucocorticoids)
18. Drugs used in osteoporosis, pharmacology of thyroid gland
19. Antiasthmatics, drugs used in COPD
20. Antitussives, mucoactive drugs
21. H1 antihistamines
22. Antipsychotics
23. Drugs of neurodegenerative diseases (Parkinson's disease; dementia)
24. Antidepressants - iMAO+SSRI+NDR1
25. Antidepressants - tricyclic, NASSA, MASSA, SARI, SNRI, NARI, SMS
26. Nootropics, cognitive enhancers
27. Psychotomimetics, drugs used in ADHD
28. Anticonvulsants
29. Hypnotosedatives, anxiolytics
30. Principles of antibacterial therapy – overview, modes of action, resistance, MIC, MBC
31. Penicillins, carbapenems
32. Cephalosporines, monobactams
33. Lincosamides, glycopeptides, polymyxins
34. Tetracyclines + related ATBs, amphenicoles
35. Macrolides and related ATBs
36. Aminoglycosides
37. Sulphonamides, nitrofurans and nitroimidazoles
38. Quinolones, antituberculous
39. Antimycotics
40. Dermatologics – overview of classes, drugs and effects
41. Antivirals
42. Antiemetic drugs, prokinetics, antivertigo drugs
43. Laxatives, antidiarrhoeals, drugs of infectious diarrhoeas
44. Antiulcer agents, hepatoprotectives and drugs influencing the production and excretion of bile
45. Drugs for inflammatory bowel disease
46. Alkylating cytostatics and other drugs aiming on DNA in oncology
47. Antimetabolites + hormonal therapy in oncology
48. Targeted treatment in oncology

49. Biological treatment of autoimmune diseases
50. Hypolipidemics, anti-obesity drugs
51. Antiangial agents
52. Antihypertensives – drugs targeting RAAS
53. Antihypertensives – diuretics and aldosterone antagonists
54. Antihypertensives beta blockers + central antihypertensives
55. Antihypertensives - calcium channel blockers, α 1 lytics
56. Antiarrhythmics
57. Drugs used in heart failure
58. Antiplatelet agents
59. Fibrinolytics, antifibrinolytics
60. Anticoagulants
61. Antianemics, hemostatics
62. Drugs causing addiction
63. Drugs used in the treatment of addiction
64. General principles of drug poisoning, specific antidotes and their mechanisms of action
65. Drugs used in erectile dysfunction and BHP
66. Vitamins
67. Antiglaucomatics and cycloplegics

„Essential drugs“ 2020

1. adrenalin/noradrenalin
2. dobutamine
3. ephedrine/pseudoephedrine
4. phenylephrine
5. oxymetazoline
6. methyldopa
7. salbutamol
8. doxazosin
9. metoprolol
10. timolol
11. atropine
12. butylscopolamine
13. fenpiverine/pitofenone
14. pilocarpine
15. rivastigmine
16. physostigmine
17. solifenacin
18. paracetamol/ASA
19. ibuprofen/diclofenac
20. indomethacin
21. nimesulide/meloxicam
22. buprenorphine
23. morphine/naloxone
24. sufentanil
25. tramadol
26. metamizole
27. allopurinol
28. sumatriptan
29. desflurane
30. propofol
31. ketamine
32. procaine/lidocaine
33. suxamethonium
34. prilocaine
35. metformin
36. glimepiride
37. sitagliptin
38. insulin lispro
39. insulin glargine
40. ethinylestradiol
41. cyproterone
42. tibolone
43. tamoxifen
44. hexoprenaline
45. oxytocin
46. levonorgestrel
47. dexamethasone
48. prednisone
49. cyclosporine
50. interferons
51. methotrexate
52. ibandronic acid
53. acetylcysteine
54. codeine
55. butamirate
56. ipratropium-bromide
57. bisulepine/cetirizine
58. haloperidol
59. olanzapine
60. aripiprazole
61. levodopa/carbidopa
62. metoclopramide
63. escitalopram
64. amitriptyline
65. mirtazapine
66. lithium
67. methylphenidate
68. piracetam/pyritinol
69. diazepam
70. buspirone
71. gabapentin/pregabalin
72. carbamazepine
73. valproic acid
74. zolpidem
75. midazolam
76. phenoxymethylpenicillin
77. co-amoxicillin
78. piperacillin
79. cefuroxime
80. meropenem
81. vancomycin
82. doxycycline
83. clarithromycin
84. azithromycin
85. gentamicin
86. cotrimoxazole
87. ciprofloxacin
88. rifampicin
89. terbinafine
90. caspofungin
91. amphotericin B
92. fluconazole
93. acyclovir
94. zidovudine
95. isotretinoin
96. salicylic acid
97. ondansetron
98. moxastine
99. pantoprazole
100. famotidine
101. lactulose
102. aprepitant
103. loperamide
104. betahistine
105. cinnarizine
106. cyclophosphamide
107. methotrexate
108. 5-fluorouracil
109. paclitaxel
110. doxorubicin
111. cisplatin
112. trastuzumab
113. imatinib
114. interferon alfa
115. nivolumab
116. atorvastatin
117. fenofibrate
118. ezetimibe
119. isosorbid dinitrate/nitroglycerin
120. hydrochlorothiazide/indapamide
121. furosemide
122. spironolactone
123. amlodipine
124. perindopril
125. telmisartan
126. digoxin
127. amiodarone
128. verapamil
129. levosimendan
130. warfarin
131. enoxaparin
132. clopidogrel
133. dabigatran
134. rivaroxaban
135. alteplase
136. methadone
137. buprenorphine
138. nalmefene
139. naltrexone
140. finasteride
141. sildenafil