The List of Questions for Exam in Pharmacology

The student must know

I. Questions on General Pharmacology:

1. What characterizes bioavailability? Give examples of drugs with different bioavailability. What is the bioavailability when it is given intravenously?

2. What is the name of medicinal substances accumulation in the body during their repeated administration? Give examples. What does it mean?

3. What is phenomenon called when one drug significantly enhances the effect of another? Weakens? Give examples. What influence does it have?

4. What is the name of the effect of the drug if it interacts predominantly with a specific type or subtype of receptors? Give examples. What does it mean?

5. What is tolerance? What is the name of the phenomenon of fast addiction? Give examples. What influence does it have?

6. Types of action of drugs. Examples. What is its importance?

7. What is drug dependence? Types of drug dependence. Give examples.

8. What is the name of condition observed with sudden withdrawal of the drug that causes dependence? Give examples.

9. How does the pathology of the liver, accompanied by a decrease in the activity of cytochromes influence on duration of action and toxicity of drugs that are metabolized with the participation of these enzymes? Give examples of inducers and inhibitors in activity of microsomal liver enzymes.

10. What is the name of drugs administration route through gastrointestinal tract. What factors affect the absorption of drugs in digestive tract? Give examples.

11. Types of drug transportation through membranes.

12. What is the name of drug administration route, bypassing gastrointestinal tract? Give examples.

13.Define concept "local action of drugs." Give examples.

14.What enteric routes of administration does the drug enter the systemic circulation bypassing the liver? Explain why. What does it mean?

15. Advantages and disadvantages in oral route of drugs administration.

16. Dependence of pharmacological effect on the route of drug administration. Examples. What is its significance?

17. What are the name of inactive substances introduced into the body as a part of dosage form, which become active in the process of biotransformation ? Give examples. What influence does it have?

18. What do the terms “pathogenetic pharmacotherapy”, “symptomatic pharmacotherapy” mean? Give examples.

19. What does the term “etiotropic pharmacotherapy” mean? Give examples.

20. What does the term “pharmacotherapy replacement” mean? Give examples.

21. What does the term “stimulating pharmacotherapy” mean? Give examples.

22. Give the definition for term "teratogenic effect." Give examples of drugs from different pharmacological groups exhibiting teratogenic effects.

23. Give the definition of concept "antagonism." Give the types of antagonism. What is its significance (importance)?

24. Give the definition of synergism. Give types of synergism. What is its significance?

25. What characterizes the range of drug therapeutic action? What does this indicator matter? Give examples of drugs with a small and large therapeutic range.

26. What characterizes therapeutic value? What does this indicator matter? Give examples of drugs with small and large therapeutic value.

27. Dosage of drugs. Types of doses.

28. What is the name of type of drug interaction associated with impaired absorption, biotransformation, transport, deposition and excretion of one of drugs? Give examples of such an interaction.

29. What are the consequences of increased activity of microsomal liver enzymes? Give examples of inducers and inhibitors of liver cytochrome activity.

30. Give the definition of “blood-brain barrier” (BBB), “placental barrier”. What physicochemical property of drug preparation allows them to penetrate the BBB?

31. Give the definition of term “biological standartization”. Give examples.

32. Define the term “dysbiosis”. What medications cause it the most often? Give examples.

33. What is withdrawal syndrome? Give examples. What does it mean?

34. What characterizes the pharmacokinetic parameter "half-life"? What does it depend on? What influence does it have?

35. What is the difference between drug allergy and idiosyncrasy? Give examples.

36. Define the terms “pharmacodynamics”, and “mechanism of drugs action”.

37. What is Pharmacokinetics studying ? What are the main pharmacokinetic processes.

38. Exogenous factors that can affect pharmacokinetics and pharmacodynamics of drugs. Examples.

39. Endogenous factors that can affect the pharmacokinetics and pharmacodynamics of drugs. Examples.

40. Indicate main ways of removing drug from body. Give examples.

41. How does the degree of binding of drugs to plasma proteins affect: a) pharmacokinetics; b) pharmacodynamics? Examples.

42. Name the types of negative effects of drugs on the fetus and indicate the consequences.

43. Define the pharmacological and pharmaceutical interactions of drugs. Give examples.

44. Define the concepts “average therapeutic dose,” “saturating dose,” and “maintenance dose.”

45. The therapeutic value, its definition according to the given initial data, the comparison of drugs with different therapeutic value in terms of safety.

46. Give a definition of the term “biotransformation”. Stages and mechanisms of biotransformation. Values.

47. Give the definition of concept “after action syndrome”. Give examples.

49. Nomenclature of medicines (chemical, international, trade names).

50. Sources of drugs.

II. The group of medecines, pharmacological effects and indications for the drugs taken from a licensed exam KROK

Medicines

1. Lidocain 2. Novocaine 3. Atropine sulphate 4. Pilocarpine 5. Proserin (Neostigmine methylsulphate) 6. Dithylinum 7. Benzohexonium 8. Adrenaline hydrochloride (Epinephrine hydrochloride) 9. Ephedrine hydrochloride 10. Dobutamine 11. Clonidine 12. Salbutamol 13. Propranolol (Anaprilin) 14. Metoprolol 15. Morphine 16. Fentanyl 17. Promedol (Trimeperidine) 18. Naloxone 19. Paracetamol 20. Diclofenac sodium 21. Acetylsalicylic acid 22. Celecoxib 23. Meloxicam 24. Indometacine 25. Nimesulide 26. Diazepam 27. Droperidol 28. Nitrazepam 29. Phenazepam 30. Phenobarbital 31. Sodium valproate 32. Levodopa 33. Aminazine (Chlorpromazine) 34. Sodium bromide 35. Caffeine sodium benzoate 36. Amitriptyline 37. Pyracetam 38. Acetylcysteine 39. Glaucin 40. Ambroxol 41. Theophylline 42.

Cromoline sodium 43. Digoxin 44. Digitoxin 45. Corglycon 46. Nitroglycerine 47. Isosorbide mononitrate 48. Amiodaron 49. Amlodipine 50. Molsidomine 51. Panangin 52. Verapamil 53. Lisinopril 54. Enalapril 55. Captopril 56. Losartan 57. Magnesium sulphate 58. Doxazosine 59. Lovastatin 60. Phenofibrate 61. Inosine 62. Famotidin 63. Ranitidine 64. Omeprazole 65. Bismuth subcitrate 66. Almagel 67. Bisacodyl 68. Loperamide 69. Pancreatinum 70. Ursodeoxycholic acid 71. Essenliale (Phospholipides), Thiotriasoline 72. Hydrochlorthiazide 73. Furosemide 74. Acetazolamide (Diacarb) 75. Triamterene 76. Allopurinol 77. Oxytocin 78. Prostaglandine 79. Cyanocobalamine 80. Vicasol 81. Heparin 82. Dicumarol 83. Retinol 84. Alpha-tocopherol 85. Ascorutinum 86. Pyridoxine 87. Nicotinic acid 88. Cocarboxylase 89. L-thyroxin 90. Prednisolone 91. Dexametazone 92. Insulin 93. Glibenclamide 94. Glucagone 95. Mercazolilum 96. Calcium chloride 97. Dimedrol 98. Loratadine 99. Kalii permanganas (Potassium permanganate) 100. Nifuroxazid 101. Alcoholic iodine solution 102. Hydrogen peroxide 103. Benzylpenicillin 104. Amoxicillin 105. Doxycycline hydrochloride 106. Tetracycline 107. Cefotaxime 108. Ceftriaxon 109. Gramicidin 110. Phthalazol 111. Co-trimaxozole 112. Isoniazid 113. Rifampicine 114. Rovamycine 115. Streptomycine116. Ftivazide 117. Oligomycin 118. Actinomycin119. Methotrexate 120. Acyclovir 121. Interferon

III. Classification, nomenclature (at least 3 drugs), mechanism of action, effects, indications, side effects and contraindications of such pharmacological groups:

- drugs that stimulate afferent innervation

- drugs that suppress afferent innervation (local anesthetics, coating, astringent, adsorbing)

- direct cholinomimetics and anticholinesterase drugs;

- anticholinergics (M-cholinoblockers, ganglionic blockers, muscle relaxants)

- direct and indirect action adrenomimetics;

- adrenergic blockers and sympatholytics;

- antiallergic drugs;

- pain and inflammation correctors (narcotic analgesics, non-narcotic analgesics, antipyretic analgesics, non-steroidal anti-inflammatory drugs);

- drugs that stimulate the central nervous system (antidepressants, nootropics, analeptics, psychostimulants, adaptogens)

- drugs that inhibit the central nervous system (antipsychotics, anxiolytics, sedatives, hypnotics, anticonvulsants, antiparkinsonian drugs);

- drugs that affect the gastrointestinal tract (antacids, antisecretory, prokinetics, laxatives and antidiarrheal drugs, enzymatic and antienzymatic drugs, hepatoprotectors)

- drugs that affect the respiratory system (decongestants, bronchodilators, mucolytics, expectorant, antitussive)

- drugs that affect the cardiovascular system (anti-anginal, anti-arrhythmic, anti-hypertensive, cardiotonic, anti-atherosclerotic drugs);

- drugs that affect the urinary system (diuretics, nephro-and uroantiseptics) - drugs that affect the blood system (blood coagulation and blood formation)

- hormonal and antihormonal drugs;

- drugs that affect the myometrium (uterotonics, tocolytics)

- vitamin medicines;

- antidotes;

- antiseptics and disinfectants;

- antibiotics (β-lactam, aminoglycosides, macrolides, tetracyclines, rifampicin, glycopeptides)

- sulfonamides;

quinolone derivatives (fluoroquinolones)

- anti-tuberculosis drugs;

- antifungal drugs;

- antiviral drugs;

- anthelmintic drugs;

- antitumour drugs;

- antiprotozoal drugs.