МИНИСТЕРСТВО ОБРАЗОВАНИЯ И НАУКИ КЫРГЫЗСКОЙ РЕСПУБЛИКИ
ОШСКИЙ ГОСУДАРСТВЕННЫЙ УНИВЕРСИТЕТ

МЕЖДУНАРОДНЫЙ МЕДИЦИНСКИЙ ФАКУЛЬТЕТ

Кафедра патологий, базисной и клинической фармакологии

СОГЛАСОВАНО
на заседании кафедры
протокол № от «22» октября 2025г.
Заведующий кафедры
к.б.н., доцент А.А.Момунова

УТВЕРЖДЕНО
Председатель УМС факультета
к.э.н., доцент Базиева А.М.
«24» октября 2025 г.

ФОНД ТЕСТОВЫХ ЗАДАНИЙ

для итогового контроля по дисциплине

«Клиническая фармакология»

На 2025-2026 учебный год
Направление: 560001- ЛЕЧЕБНОЕ ДЕЛО (GM)

Курс: 3 **Семестр: 5**

Сетка часов

Наименование дисциплины	Всего	Кредит	Аудиторные занятия (36 ч.)		СРС	СРСП
			Лекции	Практические		
Клиническая фармакология	90 ч.	3 кр.	14 ч.	22 ч.	45 ч.	9 ч.
Кол-во тестовых вопросов	300					

Направление: 560001- ЛЕЧЕБНОЕ ДЕЛО (GM)

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г.Ош – 2025г.

кафедры «Патологии, базисной и клинической фармакологии»

от «22» октября 2025 г.

на разработанные тестовые задания по дисциплине

«Клиническая фармакология»

наименование дисциплины

преп. Мирзокулов Ш, преп: Мурзаева М.И, преп: Бактыгулова М.Б.

/указать должность, ученую степень, Ф.И.О. автора (авторов)/

Тестовые задания проверены членом экспертной группы тестологов

_____

/указать должность, ученую степень, Ф.И.О./

Направления проведения оценки структуры и содержания тестового задания

№	Направление экспертизы	Оценка экспертов	
1	Соответствие задания программам и стандартам обучения	Соответствует	Не соответствует
		✓	
2	Включение в тесты только наиболее важных, базовых знаний	Соответствует	Не соответствует
		✓	
3	Ясность смысла тестовой ситуации и представления ТЗ	ясно	Не ясно
		✓	
4	Правильность ответа на вопрос ТЗ	Соответствует	Не соответствует
		✓	
5	Значимость содержания тестового задания (0-сомнительный, 1-допустимый, 2-важный, 3-существенный)	3 балл(ов)	
6	Соответствие необходимое число заданий по каждому разделу дисциплины исходя из его важности и числа часов, отведенных на его изучение в программе.	Соответствует	Не соответствует
		✓	

Членом экспертной группы выявлены следующие недостатки в тестовом задании _____

Членом экспертной группы внесены следующие исправления (корректировки) в тестовое задание _____

На основании представления тестовых заданий автором (авторами) и проведенной проверки сделала следующее заключение:

1) Содержание тестовых заданий **соответствует (не соответствует)** содержанию УМКД *(нужное подчеркнуть)*

2) Представленные тестовые задания в следующем объеме 300 вопросов: **соответствуют (не соответствуют)** требованиям, предъявляемым к количеству, уровням сложности и формам заданий для составления тестов. *(нужное подчеркнуть)*

Тестолог Сеитова А. С. _____ 22.10.25
подпись дата

Ознакомлен зав. кафедрой Мамбетова А.А. _____ 24.10.25.
подпись дата

1. What characterizes the parameter "apparent volume of distribution":
a) the absorption rate of the drug
b) the rate of excretion of the drug
c) the rate of disintegration of the drug
d) the effectiveness of the drug
2. The syndrome of "rebound" is:
a) a decrease in the effect of the drug when it is canceled
b) increasing the effect of the drug when it is canceled
c) the response of the body during drug withdrawal
d) the development of the opposite effect with continued use of the drug
3. Auto-induction is characteristic of:
a) penicillin
b) nitroglycerin
c) propranolol
d) prednisone
4. Chronic alcohol intake leads to:
a) increased absorption of drugs
b) increase the volume of distribution of drugs
c) **slowing down metabolism in the liver**
d) decrease in renal excretion
5. Indicate the antibiotic that causes diarrhea due to prokinetic action:
A) erythromycin
B) amoxicillin
C) ceftriaxone
D) gentamicin
6. The most toxic of the antibiotics of the aminoglycoside group is:
A) amikacin
B) tobramycin
C) gentamicin
D) neomycin

7. What vitamin deficiency can be expected with prolonged use of oral contraceptives:
A) A
B) B1
C) B2
D) C
8. The purpose of which vitamin during pregnancy can lead to malformations in the child:
A) A
B) B1
C) B2
D) C

9. What drug is not recommended for use in case of gout because of the ability to cause hyperuricemia:
A) nitroglycerin
B) erythromycin
C) propranolol
D) hypothiazide
10. Indicate the earliest symptom of an overdose of cardiac glycosides:
A) vomiting
B) gynecomastia
C) loss of appetite
D) hyperkalemia

11. What diuretic can cause the development of hirsutism and gynecomastia:
A) hypothiazide
B) spironolactone
C) furosemide
D) diacarb

12. The combination of hypotension and bradycardia is most likely with an overdose:
A) clonidine
B) nifedipine
C) captopril
D) prazosin

13. Indicate which of the following effects is not characteristic of verapamil:
a) hepatotoxicity

b) negative inotropic effect
c) tachycardia
d) AV block

14. Which of the following drugs does not increase the atherogenicity of blood plasma:
a) furosemide
b) nifedipine
c) diacarb
d) hypothiazide

15. Select the hemodynamic effects of nifedipine:
a) negative inotropic effect, decrease in heart rate
b) increased cardiac output, decreased heart rate
c) increase in heart rate, dilatation of venules
d) increased heart rate, dilatation of arterioles

16. Which of the drugs causes a decrease in plasma renin activity:
a) prazosin
b) hypothiazide
c) enalapril
d) metoprolol

17. What property distinguishes captopril from enalapril:
a) the ability to cause dilation of arterioles
b) the dependence of absorption on food intake
c) lack of effect on carbohydrate metabolism
d) the occurrence of a side effect in the form of cough

18. What drug is able to increase the concentration of propranolol:
a) phenobarbital
b) cimetidine
c) rifampicin
d) carvedilol

19. What drug causes withdrawal syndrome:
a) nifedipine
b) propranolol
c) captopril
d) hypothiazide

20. Which of the drugs will give the smallest fluctuations in blood pressure during the day:
a) nifedipine
b) amlodipine
c) verapamil
d) nifedipine retard SR

21. Indicate the factors that increase the hypotensive effect of captopril:
a) low plasma renin activity
b) hyponatremia
c) increased catecholamine content
d) hypernatremia

22. By taking what drug under the tongue can stop episodes of blood pressure rise:
a) captopril
b) hypothiazide
c) atenolol
d) ramipril

23. What explains the rapid effect of furosemide intravenously in hypertensive crisis:
a) diuretic effect
b) natriuretic action
c) dilatation of arteries and veins
d) a decrease in the level of renin

24. What antihypertensive agent is administered in an inactive form:
a) clonidine
b) enalapril
c) nifedipine
d) metoprolol

25. What side effect of □ - blockers is enhanced when combined with thiazide diuretics:
a) atherogenic effect
b) hypokalemia
c) decreased renal function
d) negative chronotropic effect

26. What kind of interaction causes the joint appointment of ramipril and hypothiazide:
a) summation of effects

b) potentiation
c) additive action
d) sensitization
26. What kind of interaction causes the joint appointment of ramipril and hypothiazide:
- a) summation of effects
- b) potentiation
- c) additive action
- **d) antagonism**
27. What drug forms long-acting metabolites:
a) captopril
b) nifedipine
c) ramipril
d) verapamil

28. The hypotensive effect of clonidine when taken under the tongue occurs through:
a) 10 min
b) 30 minutes
c) 1 hour
d) 1.5 hours
29. What drug causes fluid retention during prolonged use:
a) enalapril
b) amlodipine
c) bisoprolol
d) clonidine
30. Why the dose of verapamil inside for a sufficient hypotensive effect should be high:
a) due to pronounced presystemic metabolism
b) due to the slow onset of the effect
c) due to the small T 1 \ 2
d) due to the rapid elimination of the drug
31.For the full manifestation of the hypotensive effect of β-blockers, it is required:
a) 2 hours
b) 24-48 hours
c) 3-5 days
d) 10-14 days
32. The antihypertensive effect of which drug inhibits the use of non-steroidal anti-inflammatory drugs:
a) in - blockers
b) clonidine
c) calcium antagonists
d) ACE inhibitors

33. What is the phenomenon of the first dose manifested when taking prazosin:
a) a short-term increase in blood pressure
b) orthostatic hypotension
c) decrease in cardiac output
d) a sharp increase in heart rate
34. Which of the antihypertensive drugs does not penetrate the BBB:
a) propranolol
b) clonidine
c) atenolol
d) enalapril
35. What drug is contraindicated for hypertensive crisis with severe tachycardia:
a) clonidine
b) captopril
c) nifedipine
d) enap R
What is the beneficial effect of a combination of nifedipine with metoprolol:
a) elimination of tachycardia
b) enhancement of positive inotropic action
c) increased sedation
d) improvement of antiarrhythmic properties

37. What explains the development of tachycardia when taking arteriolar vasodilators:
a) increased renin activity
b) increased activity of the sympathoadrenal system
c) sympatholytic action
d) anticholinergic action

38. For which drug is the development of orthostatic hypotension not characteristic:
a) clonidine
b) benzohexonium
c) prazosin
d) amlodipine
39. What mechanism determines the additional vasodilating effect of carvedilol:
a) blockade of □1 - receptors
b) stimulation of □1 receptors
c) stimulation of □2 receptors
d) direct myotropic effect
40. The combined use of diuretics and b-blockers leads to:
a) increase in atherogenic plasma
b) tachycardia
c) neutropenia
d) fluid retention
The joint appointment of in - adrenergic blockers and oral hypoglycemic can cause:
a) potentiation of hypoglycemic action
b) a decrease in the hypoglycemic effect
c) lack of interaction
d) increase in blood pressure
42. What is the reason for the advisability of combining ACE inhibitors and diuretics in the treatment of hypertension:
a) ACE inhibitors reduce activation by RAAS diuretics
b) diuretics eliminate fluid retention caused by ACE inhibitors
c) diuretics eliminate hypokalemia caused by ACE inhibitors
d) diuretics eliminate hypernatremia caused by ACE inhibitors

43. Mark a diuretic for long-term monitoring of blood pressure:
a) furosemide
b) diacarb
c) indapamide
d) triamteren

44. Choose a rational combination of antihypertensives:
a) nifedipinesβ-blockers
b) β-blockers verapamil
c) ACE inhibitors nifedipines
d) ACE inhibitors angiotensin II receptor blockers
45. Choose a b-blocker with the most pronounced inhibitory effect on the central nervous system:
A) metoprolol
B) bisoprolol
C) atenolol
D) betaxolol
46. What is the best combination of amlodipine to avoid the occurrence of edema:
A) ACE inhibitors
B) hypothiazide
C) Veroshpiron
D) indapamide
47. Which drug absorption is reduced with food intake?
a) cozaar
b) enalapril
c) strophanthin
d) furosemide
48. Indicate the reason for tolerance to diuretics with long-term use:
a) autoinduction in the liver
b) increased activity of RAAS
c) increased activity of CAC
d) decreased activity of the sympathetic nervous system
49. Which of the dosage regimens of Veroshpiron is most effective in CHF:
a) dose divided into 2 doses
b) the entire dose in the morning once
c) dose divided into 3 doses
d) every other day
50. What drug can cause hyperkalemia when used together with enalapril:
a) digoxin
b) hypothiazide
c) furosemide
d**) Veroshpiron**

51. Indicate a condition that increases the absorption of digoxin in the digestive tract:
a) vomiting
b) taking anticholinergics
c) diarrhea
d) taking verapamil
52. For which group of diuretics are metabolic disorders most pronounced:
a) loopback
b) carbonic anhydrase inhibitors
c) K - saving
d) thiazide

53. Which of the following inhaled drugs is less absorbed into the systemic circulation:
a) ipratropium bromide
b) salbutamol
c) berotek
d) beclamethasone

54. The "locking" syndrome may develop when using the following drugs:
a) glucocorticoids
b) adrenaline
c) ipratropium bromide
d) B2 - adrenostimulants

55.Basics for the treatment of asthma include:
a) glucocorticosteroids
b) B2 stimulants
c) membrane stabilizers
d) mucolytics
56. Which of the following inhaled drugs is used to relieve asthma attacks:
a) intal
b) singular
c) berotek
d) beclamethasone

57. The action of which drug is potentiated when used in conjunction with B2 - adrenergic agonists:
a) budesonide
b) propranolol
c) salbutamol
d) ambroxol
59. For the treatment of "locking" syndrome use:
a) amyfillin
b) hydrocortisone
c) adrenaline
d) atropine
60.Berudual is:
a) fenoterol budesonide
b**) fenoterol ipratropium bromide**
c) budesonide formoterol
d) beclamethasone ipratropium bromide

61. What drug can worsen the course of diabetes:
a) budesonide
b) prednisone
c) ipratropium bromide
d) amyfillin
62.In order to obtain the same effect, the dose of which drug should be higher when given in the introduction than when taken orally:
a) isoprenaline
b) aminophylline
c) adrenaline
d) verapamil
63. Sodium chromoglycate is the drug of choice in patients with:
a) severe bronchial asthma
b) a non-allergic form of asthma
c) aspirin asthma
d) atopic bronchial asthma

64. Side effects of ketotifen include:
a) bronchospasm after taking the drug

b) drowsiness
c) sleep disturbance and irritability
d) irritation of the mucous membrane of the respiratory tract

65. Antibiotics in patients with chronic bronchitis should be prescribed:
a) in the presence of purulent sputum
b) with hemoptysis
c) in the autumn-winter period
d) in the elderly
66. Side effects requiring the withdrawal of inhaled corticosteroids include:
a) the development of candidiasis of the oral cavity
b) dysphonia
c) sporadic cough after inhalation
d) the occurrence of bronchospasm after inhalation

67. The safety of inhaled corticosteroids depends on:
a) affinity for corticosteroid receptors
b) the intensity of the presystemic metabolism
c) the volume of distribution of the drug
d) multiplicity of appointment
68. Ipratropium bromide is different from inhaled B2 agonists:
a) longer bronchodilating effect
b) a more pronounced bronchodilating effect
c) faster onset effect
d) more effective relief of an attack of bronchial asthma
69. Which of the combined bronchodilators is dangerous to use for a patient with “aspirin” asthma:
a) berodual
b) symbicort
c) broncholitin
d) theophedrine

70. To which group of drugs does the singular belong:
a) IGKS
b) antihistamine
c) leukotriene receptor inhibitor
g) mucolytic
d) antitussive
71. What antiulcer drugs can cause hypophosphatemia:
a) aluminum-containing antacids
b) bismuth-containing preparations
c) proton pump blockers
d) H2-histamine blockers
72. What combination of drugs potentiates the bactericidal effect on H. pylori:
a) de-nol famotidine
b**) de-nol** amoxicillin
c) almagel amoxicillin
d) phospholugel famotidine
73. Indicate what does not apply to side effects of absorbable antacids:
a) metabolic alkalosis
b) hyperNaemia
c) withdrawal syndrome
d) hypophosphatemia
74. Indicate one of the important advantages of omeprazole over H2 blockers - histamine receptors:
a) the cheapness of the drug
b**) th**ere is no “withdrawal syndrome”
c) inhibits the secretion of hydrochloric acid
d) has a bactericidal effect against H. pylory

75. To avoid the "withdrawal syndrome", H2 - blockers should be abolished within:
a) 3 days
b) 5 days
c) **2** weeks
d) two months
76. Three-component scheme for eradication H. Pylori includes:
a) famotidine omeprazole amoxicillin
b**)** omeprazole amoxicillin clarithromycin
c) famotidine amoxicillin clarithromycin
d) omeprazole de-nol famotidine

77. Which of the prokinetics does not penetrate the central nervous system and does not cause side effects from the nervous system:
a) metoclopramide
b) cimetidine
c) do**mpe**ridone
d) all of the above

78. In the event of a depressive state in patients with coronary artery disease, the appointment of:
a) propr**anolo**l
b) acetylsalicylic acid
c) nitrosorbide
d) atenolol
79. Similar to the mechanism of action with nitroglycerin is:
a) propranolol
b) corinfar
c) m**olsidomine**
d) atenolol
80. The drug of choice for angina pectoris in a patient with bradycardia is:
a) am**lodi**pine
b) bisoprolol
c) verapamil
d) diltiazem
81. Which of the metabolic drugs is currently recommended for IHD?
a) riboxin
b) ATP
c) cocarboxylase
d) trimet**azi**dine

83. Choose a rational combination for the appointment of a patient with FC III stable angina pectoris:
- * a) b-blockers nitrates
- b) nifedipines nitrates
- c) b-blockers verapamil
- d) blockers heparin

83. Choose a rational combination for the appointment of a patient with FC III stable angina pectoris:
a) b-blockers nitrates
b) nifedipines nitrates
c) b-blockers verapamil
d) -blockers heparin

84. Indicate the purpose of prescribing statins in an increased dose in the first days of myocardial infarction:
a) lower total cholesterol
b) lowering low-density lipoprotein cholesterol
c) stabilization of atherosclerotic plaques
d) reduction of preload

85. When should statins be prescribed:
a) in the morning before breakfast
b) in the evening after dinner
c) after lunch
d) recommended every other day
86.Select a side effect characteristic of statins:
a) myelotoxicity
b) CNS depression
c) elongation QT
d) myopathy

87. Indicate the drug belonging to the group of direct anticoagulants:
a) alteplase
b) warfarin
c) clopidogrel
d) fraksiparin

88. Indicate the drug belonging to the group of thrombolytics:
a) acetylsalicylic acid
b) tenecteplase
c) warfarin
d) heparin
89. Indicate the indicator that should be monitored during heparin therapy:

a) prothrombin time
b) activated partial thromboplastin time
c) international normalized attitude
d) bleeding time

90. To what class of medications does fraxiparin belong:
a) thrombolytics
b) antiplatelet agents
c) vitamin K antagonists
d) low molecular weight heparins
91. When prescribing heparin to a patient with low antithrombin III activity, it is advisable:
a) combine heparin with freshly frozen plasma
b) administer large doses of heparin
c) replace heparin with low molecular weight analogues
d) replace heparin with thrombolytics

92. Indicate the mechanism of action of clopidogrel:
a) blockade of COX
b) blockade of receptors IIb \ IIIa
c) blockade of receptors for ADP
d) blockade of the synthesis of coagulation factors in the liver

93. What indicator should be monitored in the treatment of warfarin:
a) APTTV
b) bleeding time
c) INR
d) coagulation time

94.To dissolve a fibrin thrombus use:
a) heparin
b) aspirin
c) clopidogrel
d) alteplase

95. What side effect is characteristic for lincomycin:
a) anemia
b) hearing loss
c) polyneuritis
d) enterocolitis
96. What is the name of the antibiotic for influencing the sensitive strains of Streptococcus pneumoniae in the treatment of pneumonia?
a) ciprofloxacin
b) gentamicin
c) cefotaxime
d) doxycycline

97. Which of the antibiotics creates high concentrations in the prostate gland:
a) ciprofloxacin
b) lincomycin
c) ampicillin
d) erythromycin

98. Which of the antibiotics should be prescribed to affect microorganisms producing in - lactamases:
a) penicillin
b) ampicillin
c) cefazolin
d**) amoxiclav**

99.Select an antibacterial agent for the treatment of pneumonia caused by Mycoplasma pneumoniae:
a) lincosamides
b) penicillins
c) cephalosporins
d) macrolides

100. Note the most appropriate combination of antibiotics for severe community-acquired pneumonia:
a) penicillins aminoglycosides
b) aminoglycosides cephalosporins of the II generation
c) III generation cephalosporins macrolides
d) fluoroquinolones aminoglycosides

101. Dosage regimen of which antibiotic should be changed in cases of renal failure:
a) ceftriaxone
b) gentamicin
c) doxycycline
d) erythromycin

102. Which of these antibiotics should not be prescribed for cholestatic hepatitis:
a) erythromycin
b) ampicillin
c) claforan
d) lincomycin
103. For which antibiotic is it necessary to correct the administration regimen for liver failure:
a) ampicillin
b) cefoperazone
c) imipenem
d) gentamicin

104. Which of the antibiotics creates high concentrations in bone tissue:
a) gentamicin
b) nalidixic acid
c**) lincomycin**
d) erythromycin
105. What is the advantage of carbapenems in comparison with other b - lactam antibiotics:
a) have 2 ways of elimination
b) do not cause allergic reactions
c) are able to penetrate the blood-brain barrier
d) resistant to b-lactamase (BLRS)

106. Why is imipenem used in combination with cilastatin:
a) to create therapeutic concentrations of an antibiotic in the urine
b) for better penetration of imipenem into tissues
c) for inhibition of microbial cell lactamase
d) to obtain a potentiating effect

107.Select a medication for sepsis caused by MRSA:
a) ampicillin
b) cefazolin
c) thienam
d) **azithromycin**

108. Choose the most effective anti-Pustulent drug:
a) amoxicillin
b) cefotaxime
c) **imipenem**
d) meropenem
109.Select an antimicrobial drug with a narrow therapeutic corridor:
a) macropen
b) clindamycin
c) **amikacin**
d) amoxicillin
110. Not recommended for the treatment of pyelonephritis:
a) ciprofloxacin
b) cefotaxime
c) **nalidixic acid**
d) amikacin

111. What antimicrobial drug is contraindicated in children:
a) penicillin
b) ceftriaxone
c) azithromycin
d) **ciprofloxacin**

112.Select fluoroquinolone with antipyretic activity:
a) norfloxacin
b) lomifloxacin
c) sparfloxacin
d) **levofloxacin**

113. Choose a combination of antibiotics that increases the risk of cardiotoxicity (increased QT):
a) cephalosporins macrolides
b) cephalosporins aminoglycosides
c) **phthoquinolonescephalosporins**
d) fluoroquinolones macrolides
114. Select the macrolide most active against hemophilic bacillus:
a) azithromycin
b) **erythromycin**
c) roxithromycin
d) josamycin

115. To which class of antiviral drugs does oseltamivir (Tamiflu) belong:
a) antiherpetic
b) antiretroviral
c) **anti-influenza**
d) anti-cytomegalovirus

116. Choose a drug with proven anti-influenza efficacy:
a) **zanamivir**
b) influenza
c) dibazole
d) amixin

117. What antibiotic causes hypoprothrombinemia:
A) cefotaxime
B) amoxicillin
C) **azithromycin**
D) cefoperazone
118.Select cephalosporin with the longest elimination half-life:
A) cefazolin
B) **cefuroxime**
C) cefotaxime
D) ceftriaxone

119.Select fluoroquinolone with antianerobic activity:
A) **moxifloxacin**
B) levofloxacin
C) ciprofloxacin
D) norfloxacin

120.Select a medication to treat MRSA infection:
A) cefazolin
B) amoxicillin / clavulanate
C) imipenem
D) **vancomycin**
121. Choose a drug for the treatment of pseudomembranous colitis caused by C. difficile:
A) penicillin
B) cefotaxime
C) thienam
D) **vancomycin**

122.Select anti-Pseudomonas penicillin:
A) **ticarcillin**
B) ampicillin
C) amoxicillin
D) tobramycin

123.Select an antifungal drug to treat aspergillosis:
A) fluconazole
B) **voriconazole**
C) nystatin
D) levorin
124. Choose an antibiotic from the group of lipopeptides:
A) piperacillin
B) tigecycline
c) **daptomyci**n
D) polymyxin M

125. Indicate the clinical condition, which is an indication for monotherapy of NSAIDs:
a) extra-articular rheumatic diseases (myositis, tendovaginitis, synovitis)
b) systemic lupus erythematosus
c) dermatomyositis
d) migraine
126. NSAIDs with severe anti-inflammatory activity include:
a) metamizolol
b) k**etorolac**
c) paracetamol
d) diclofenac

127. Why is the appointment of NSAIDs in the last trimester of pregnancy undesirable:
a) retardationoflabor
b) **increased contractility of the** myometrium
c) mutagenic effect
d) violation of the growth of bones and teeth of the fetus
128. The interaction of NSAIDs with ACE inhibitors in the treatment of hypertension leads to:
a) weakening the hypotensive effect
b) increased hypotensive effect
c) inhibition of the central nervous system
d) **reduction of gastrotoxicity of NSAIDs**

129. The most dangerous drug in terms of the occurrence of interstitial nephritis is:
a) paracetamol
b) phenacetin
c) **piroxicam**
d) naproxen

130. At what level does the interaction of NSAIDs and aminoglycosides occur:
a) inhibit the absorption of aminoglycosides
b) inhibit the metabolism of aminoglycosides in the liver
c) inhibit renal excretion of aminoglycosides
D) displaced from communication with proteins

131. With the interaction of indomethacin with other drugs:
a) increased diuretic activity of furosemide
b) the hypotensive effect of enalapril is reduced
c) the toxic effect of cardiac glycosides decreases
d) there is no interaction with other drugs

132. Indicate the lack of highly selective COX2 blockers:
a) pronounced gastrotoxic effect
b) bleeding
c) **worsening prognosis in** coronary heart disease
d) neuro-muscular blockade

133.Select the dose of prednisolone corresponding to the background production of GCS in the adrenal glands:
A**) 10** mg
b) 15 mg
c) 20 mg
d) 40 mg
134.What does not apply to the side effects of corticosteroids:
A) retention of sodium and water
B) increased plasma glucose
C) protein catabolism
D) potassium retention
135. Which of the corticosteroids most contributes to the development of myopathy:
A) dexamethasone
B) triamcinolone
c) betamethasone
d) methylprednisolone
136. Mineralcorticoid activity is absent in:
A) cortisone
B) hydrocortisone
c) dexamethasone

d) prednisone
d) methylprednisolone
137 Depression of the hypothalamic-pituitary-adrenal system does not occur when taking prednisolone in a dose:
A) 30 mg / day
B) 40 mg / day
B) 20 mg / day
D) **5 mg / day**

138. The full restoration of the function of the adrenal cortex with a course of GCS for 2-3 weeks occurs:
A) immediately after cancellation
B) after 2 weeks
C) 3-4 weeks
D**) 6-12 months**
139. Measures for the prevention of adrenal insufficiency in the treatment of corticosteroids:
a) observe the circadian rhythm of the appointment
b) **use alternative therapy**
c) gradually reduce the dose with a course of more than 2 weeks
d) use the lowest effective dose

140.Suppressive therapy for corticosteroids in adrenogenital syndrome involves:
A) 1 \ 3 doses of cortisone in the morning, 2 \ 3 doses in the evening
B) 2 \ 3 doses of cortisone in the morning, 1 \ 3 in the evening
C) the entire dose of cortisone in the morning
D) the entire dose of cortisone in the evening
141.Select the wrong answer: Pulse therapy is:
A) emergency treatment of severe, life-threatening diseases
B) quick effect, the possibility of subsequent use of a low maintenance dose
C) a quick effect, but later higher doses are needed
D) high (up to 3000 mg / day) doses of prednisone

142. Alternative therapy for corticosteroids involves the use of:
A) low doses of steroids with their periodic increase
B) one drug every other day in the form of one doubled dose
C) two drugs alternately (with a dose reduction by half)
D) systemic corticosteroids with the transition to inhalation forms
143. List the indications for the short course of GCS:
A) adrenal insufficiency
B) removal of allergic inflammation
C) autoimmune process
D) severe asthma
144. Indicate the drug with the least ulcerogenic effect:
A) prednisone
B) triamcinolone
C**) betamethasone**
D) methylprednisolone

145.Select the corticosteroids most commonly causing osteoporosis:
A) prednisone
B**) dexamethasone**
C) triamcinolone
D) methylprednisolone
146. What symptoms may appear after a sudden cancellation of corticosteroids:
A) collapse
B**) vomiting**
C) abdominal pain
D) arthralgia

147. Indicate the effects of the interaction of prednisolone and estrogen drugs:
A) **enhancement of the effects** of corticosteroids
B) sodium retention
C) increased swelling
D) acceleration of blood coagulation

148. The earliest undesirable effects of GCS are:

A) cataract
B) steroid ulcer
C) osteoporosis
D) Cushingoid syndrome

149. Indicate the drug for the treatment of hypertension during long-term therapy with corticosteroids:
A) hypothiazide
B) metoprolol
C) nifedipine retard
D) **ramipril**

150. Which way of elimination are all GCS:
A) filtration in the kidneys
B) hepatic metabolism
C) **renal tubule secretion**
D) secretion with bile
151. Specify a contraindication for nasal forms of corticosteroids:
A) allergic rhinitis
B) repeated nosebleeds
C) nasal polyposis
D) curvature of the nasal septum
152. Systemic pharmacodynamic therapy of corticosteroids involves:
A) 10 mg of prednisone in the morning
B) 20 mg of prednisolone according to an alternating scheme
C) 40 mg in 2 divided doses in the morning
D) "pulse therapy" 1000 mg / day for three days

153. I generation antihistamines can block:
A) H1 receptors
B) serotonin receptors
C) M-cholinergic receptors
D) adrenergic receptors

154. Note the lack of antihistamines of the first generation:
A) tachyphylaxis
B) CNS depression
C) tachyardia
D) intestinal atony

155. The I generation of antihistamines does not apply:
A) diphenhydramine
B) suprastin
C) fencarol
D) cetirizine
156. Choose the international nonproprietary name of tavegil:
A) chloropyramine
B) clemastine
C) mebhydrolin
D) diazolin

157. Choose a characteristic side effect for antihistamines of the II generation:
A) CNS depression
B) cardiotoxicity
C) intestinal atony
D) atony of the bladder

158. In a patient with prostate adenoma, use with caution:
A) desloratadine
B) loratadine
C) cetiizine
D) suprastin

159. The risk of rhythm disturbances when using astemizole increases when used together with:
A) azithromycin
B) penicillin
C) erythromycin

D) meropenem

160. Note the duration of fexofenadine:
A) 2 hours
B) 6 hours
C) 12 hours
D) 24 hours
161. With which of the antihistamines does amufillin have a cross-allergic reaction:
A) cetirizine
B) suprastin
C) fexofenadine
D) diphenhydramine

162. Choose an antihistamine with the least inhibitory effect on the central nervous system:
A) diphenhydramine
B) tavegil
C) suprastin
D) fencarol

163. Antihistamines can be considered as basic agents in the treatment of:
A) allergic rhinitis
B) vasomotor rhinitis
C) bronchial asthma
D) infectious-allergic myocarditis

164. Side effects of terfenadine that limit its use include:
A) the presence of sedation
B) cardiotoxic effect
C) the ability to increase intraocular pressure
D) constipation

165. Astemizole is different from other 2nd generation antihistamines:
A) irreversible binding to H1-histamine receptors
B) a more pronounced effect in the first days of admission
C) the possibility of monotherapy for atopic asthma
D) a more pronounced sedative
166. Which of the antihistamines has a maximum elimination half-life:
A) terfenadine
B) astemizole
C) loratadine
D) desloratadine

167. The clinical effect of ketotifen is manifested through:
A) 2 hours
B) 2 days
C) 7 days
D) 1 month

168. The dose of which antihistamine should be reduced in a patient with chronic renal failure:
A) loratadine (clarithin)
B) cetirizine (zirtec)
C) desloratadine (erius)
D) clemastine (tavegil)

169. What antihistamine drug can potentiate the effects of alcohol:
A) desloratadine (erius)
B) fexofenadine (telfast)
C) cetirizine (zyrtec)
D) loratadine (clarithin)

170. The clinical effect of intranasal allergodil in allergic rhinitis occurs through:
A) 5-10 min
B) 20-40 minutes
C) 1-2 hours

D) 5-6 hours
171. The means of choice for the treatment of seasonal allergic rhinitis during pregnancy is:
A) intranasal corticosteroids
B) intranasal antihistamines
C) intranasal cromoglycate
D) loratadine

172. Which of the following drugs can be used in patients with liver failure:
A. Lidocaine
B. Tokainid
C. Mexitil
D. Propaphenone

173. What side effect is not typical for amiodarone:
A. Interstitial pneumonitis
B. Photodermatitis
C. Impaired thyroid function
D. Anticholinergic effect

174. What changes on the ECG are not characteristic when using class 1A preparations:
A. Increase QT Width
B. QT interval shortening
C. Increase QRS Width
D. Extension AV

175. In what case does the risk of arrhythmogenic (proarrhythmic) action increase when using class 1 drugs:
A. When using smaller doses of the drug
B. When using 2 antiarrhythmic drugs
C. Against the background of hyperkalemia
D. In individuals under 50 years of age and an ejection fraction of 45%

176. Indicate the drug of choice for the relief of ventricular cardiac arrhythmias in patients with acute myocardial infarction:
A. Amiodarone
B. lidocaine
C. quinidine
D. Diltiazem

177. The purpose of which antiarrhythmic drug is undesirable for prostate adenoma:
A. Quinidine
B. Disopyramides
C. Amiodarone
D. Etatsizin.
178. Lupus syndrome may occur with the use of:
A. Allapenina
B. Propafenone
C. procainamide
D. Propranolol
179. Indicate contraindications to the appointment of a disopyramide:
A. Hypothyroidism
B. Chronic obstructive bronchitis
C. Diabetes mellitus with periods of hypoglycemia
D. Glaucoma
180. What is the drug related to ergot alkaloids derivatives:
A nicergoline
B vinpocetine
C In nimodipine
D Phenibut

181. Mark preparations related to Ca antagonists:
A. Vincamine, vinpocetine
B. Piracetam, Aniracetam
C. Cinnarizine, flunarizine

182. State the condition when the appointment of cinnarizine is undesirable:
A. ONMK
B. Migraine
C. Labyrinth disorders

D. Disturbance of peripheral circulation
183. Indicate the side effect of antipsychotics:
A. Parkinsonism
B. Inhibition of bone marrow hematopoiesis
C. Decreased libido

184. Note the main disadvantages of short-acting insulins:
A. Slow start –h \ s 30 min., Duration of action — up to 8 hours.
B. A quick start - h \ s 3 minutes., Duration 2 hours.
C. The onset of action - h \ s 10 minutes., Duration - up to 4 hours.
D. Slow start –h \ s 1 hour, duration of action — up to 6 hours.

185. What is the short-acting analogue of human insulin:
A. Humulin
B. Humalogue
C. Lantus
D. Protofan
86. What is the long-acting insulin analogue:
A. Khumulin
B. Humalog
C Novo Rapid
D. Monotard

187. Mark the indications for insulin therapy:
A. Type I diabetes
B. Pregnancy
C. Coma
D. Surgery

188. Indicate what does not apply to the complications of insulin therapy:
A. The phenomenon of Samoji
B. Insulin resistance
C. Visual impairment
D. Hyperuricemia

189. Note the correct treatment for hypoglycemic coma:
A. And in \ in 60 mg of prednisolone
B. in \ in 5% glucose
C. IN. 40% glucose
D. in \ m 1 ml of adrenaline
190. Mark the mechanism of action of sulfonylurea derivatives:
A. Stimulate the release of insulin from pancreatic b-cells
B. Decreased glucagon levels
B. Increasing the number of insulin receptors in cells

191. Indicate a drug that is not related to derivatives of sulfonylurea generation II:
A. glibenclamide (maninyl)
B. chlorpropamide (minerin)
C. glycidon (glurenorm)
D. glimepiride (amaryl)
192. Indicate a non-sulfonylurea derivative side effect:
A. Hepatotoxicity
B. Dyspeptic symptoms
C. Hematologic disorders
D. Heart rhythm disturbances

193. Indicate the sulfonylurea preparation, effective 24 hours:
A. glimepiride (amaryl)
B. glycidone (glurenorm)
C. Gliclazide (diabetes)
D. glibenclamide (maninyl)
194. Indicate the additional effect of diabetes
A. decrease in HCL
B. decreased platelet adhesion and aggregation
C. Lowering blood pressure
D. Normalization of gastrointestinal motility

195. Interaction with which drugs inhibits the metabolism of sulfonylurea derivatives:
A. Sulfanilamides
B. Dicumarines
C. NSAID
G. Tetracyclines
196. Indicate the composition of the drug glibomet:
A. glibenclamide 2.5 mg acarbose 100 mg
B metformin 400 mg acarbose 100mg
B. metformin 400 mg repaglinide 0.5 g.
D. glibenclamide 2.5 mg metformin 400 mg
197. What does not apply to the side effects of biguanides
A. Allergic reactions
B. Diarrhea
C. Lactic acidosis
D. Weight gain
198. Indicate a contraindication for the appointment of pioglitazone:
A. Hypotension
B. CHF III-IV FC
C. Slowdown of AV conductivity
199. Note the main indication for the appointment of a new norm:
A. severe postprandial hyperglycemia
B. Effect on Fasting Hyperglycemia
C. Decreased intestinal glucose production
200. Note the mechanism of action of acarbose:
A. Stimulate the release of insulin from b-cells of the pancreas
B. Inhibits intestinal α-glucosidase
C. Increases glucose transporters

201. Note contraindications to α-glucosidase inhibitors:
A. Allergy
B. Diabetic ketoacidosis
B. Ulcerative colitis
D. Intestinal obstruction
202. Note the side effect not characteristic of acarbose:
A increase in cholesterol, TG
B. Dyspepsia
C. Increase in transaminases
D. Decrease in absorption of vitamin b 6
203. Indicate the antibiotic, which is the drug of choice in the treatment of infections,
caused by methicillin-resistant staphylococcus:
a) lincomycin
b) erythromycin
c) vancomycin
d) penicillin
204. Indicate the antibiotic with the highest antianerobic activity:
a) ampicillin
b) gentamicin
c) cefoperazone
d metronidozole

205. Select a drug that is active against atypical pathogens: mycoplasma, chlamydia, legionella:
a) gentamicin
b) erythromycin
c) ampioks
d) chloramphenicol
206. specify that cotrimoxazole is the drug of choice in the treatment of:
a) pneumocystis pneumonia in patients with immunodeficiency
b) diphtheria
c) cholangitis
d) pneumococcal pneumonia

207. specify which antibiotic is contraindicated in patients receiving muscle relaxants or with myasthenia gravis?
a) ampicillin
b) gentamicin
c) erythromycin
d lincomycin

208. analyze this situation: A patient with asthma receiving constantly prednisone inside, theopec, inhalation berotek, in connection with the joined bronchopulmonary infection, erythromycin and bromhexine were prescribed. On the third day of treatment, the patient developed headache, anxiety, irritability, palpitations, a feeling of heart failure, decreased blood pressure, fever, nausea, and vomiting.

Analyze the toxic effects of which drug are these symptoms associated with?

a) prednisone
b) theopec
c) erythromycin
d) berotek

209. note which drugs from the NSAID group are most appropriate to use in children (over 2 years old) with the presence of risk factors for NSAID gastropathy?

A. nimesulide
B. indomethacin
C. acetylsalicylic acid
D. piroxicam

210. note that the bioavailability of nifedipine is low due to:

a) presystemic elimination in the liver
b) low absorption
c) binding to plasma proteins
d) inactivation in the gastrointestinal tract

211. Find a drug whose use in osteoarthritis is not recommended because of the risk of severe adverse reactions and interactions, and it is said that its use contributes to the progression of the degenerative process in the cartilage.

A. indomethacin
B. diclofenac sodium
C. ibuprofen
D. nimesulide

212. Indicate which drug is the drug of choice for long-term replacement therapy of hypothyroidism in pediatric practice?

A. levothyroxine sodium
B. tiamazole
C. potassium iodide
D. propylthiouracil

213. Find a drug that inhibits the synthesis of prostaglandins directly in the hypothalamic centers of thermoregulation and pain. It does not have an anti-inflammatory effect. The drug of choice for pain medication and antipyretic therapy in children. Hepatotoxic.

A. paracetamol
B. indomethacin
C. acetylsalicylic acid
D. diclofenac

214. After the doctor used two drugs, the pharmacological action of only one of the drugs intensified. What manifestation of drug interaction are we talking about?

A. additive effect
B. antagonistic effect
C. Sensitive effect
D. Potentiation

215. analyze: a 1-month-old child is diagnosed with community-acquired pneumonia of mild severity. Concomitant pathology was not detected. What drug is most suitable for empirical antibiotic therapy in this patient?

A. cefuroxime
B. gentamicin
C. ceftazidime
D. levofloxacin

216. The development of nitrate tolerance depends mainly on:

a) from the route of administration of nitrate
b) from the time to reach the maximum concentration in the blood
c) of the duration of action
d) from a combination with other medicines

217. Indicate the side effect of nicotinic acid:

a) lipodystrophy
b) hyperuricemia
c) rhabdomyiosis
d) visual impairment

218. Indicate the side effect of bile acid sequestrants:

a) skin itch
b) diarrhea
c) constipation
d) visual impairment

219. Note a loop diuretic with a possible ototoxic side effect:

a) dehydrocholic acid;
b) ethacrine acid;
c) acetylsalicylic acid;

d) nalidixic acid;

220. Note the possible side effect of potassium-sparing diuretic spironolactone:
a) arterial hypertension;
b) gynecomastia;
c) hypokalemia;
d) ulcerogenic effect;

221. Specify an antibacterial drug that is not active against pneumococcus:
a) azithromycin
b) penicillin
c) ceftriaxone
d) ciprofloxacin

222. Choose a combination of antibacterial drugs with synergistic action and safety:
a) penicillinstetracyclines
b) penicillinscephalosporins
c) penicillins macrolides
d) penicillins aminoglycosides

223. The following antibacterial drugs penetrate well through the blood-brain barrier:
a) penicillins
b) macrolides
c) tetracyclines
d) cephalosporins
224. Fluoroquinolones differ from quinolones in the following properties, with the exception of:
a) a broad antibacterial spectrum of action
b) bacteriostatic effect
c) high penetration in the fabric
d) post antibiotic effect
225. Choose a drug that maximally suppresses the secretion of hydrochloric acid:
a) pirenzepine
b) cimetidine
c) carbenoxolone
d) omeprazole
226. identify a drug that is characterized by the maximum number of side effects among H2 blockers causes:
a) cimetidine
b) roxatidine
c) nizatidine
d) ranitidine
227. analyze and answer: what effect is not typical for synthetic analogues of prostaglandins (enprostil, misoprostol
a) antisecretory action
b) secretion of barbiturates
c) mucus formation
d) reparative action
228. Highlight a drug that does not inhibit the metabolism of other drugs:
a) omeprazole
b) carbenoxolone
c) cimetidine
d) gastrocepin
229. The duration of the antisecretory effect of omeprazole is:
a) 2-4 hours
b) 8-10 hours
c) 16-20 hours
d) 24 hours

230. analyze: In connection with the presence of edematous syndrome, the appointment of diuretics is indicated for the child. The diuretic effect of which of the following drugs is less pronounced?
A. spironolactone
B. furosemide
C. ethacrylic acid
D. Mannitol
231. Against the background of uncontrolled administration of a bronchodilating drug in an inhaled form, the patient developed a sharp deterioration in bronchial conduction "rebound syndrome". What medication could trigger a side effect in this clinical situation?
A. salbutamol
B. theophylline
C. beclomethasone

D. cromoglicic acid
232. The child is 1 month old, against the background of an intrauterine infection, there are clinical and laboratory signs of hyperactivation of the blood coagulation system. What drug from the group of anticoagulants should be used in this clinical situation?
A. Neodicumarin
B. Abciximab
C. Warfarin
D. Heparin
233. With kidney pathology, the following changes in the pharmacogenetics of drugs occur, find that is not typical:
a) decrease in bioavailability
b) an increase in the concentration of drugs in blood plasma
c) a decrease in binding to plasma proteins
d) increase in half-life
234. Confirm that the drug of choice for Prinzmetal angina (vasospastic) is:
a) nifedipine
b) obzidan
c) dipyridamole
d) run up
235. With the erroneous introduction of bicillin into the artery, it develops:
a) damage to the auditory nerve;
b) gangrene of the limb;
c) damage to the bone apparatus and teeth;
d) violation of the formation of cartilage;
236. determine the drug of choice for angina pectoris in a patient with bradycardia:
a) pindolol
b) propranolol
c) verapamil
d) diltiazem
237. determine the drug of choice for angina pectoris in a patient with heart failure:
a) verapamil
b) corinfar
c) diltiazem
d) nitrosorbitol

238. Indicate which of the following criteria is not included in the basic principles of pharmacotherapy:
a.safety
b.polypragmasia
c. controllability
d.minimalization

239. Determine the name of the drugs that are selected on the basis of reliable scientific information for the treatment of patients as priority drugs
a) studied
b) personal
c) controlled
d) rational
240. When dispensing a drug to a patient, the pharmacist must inform him of:

a. physico-chemical properties of the drug
b. possible side effects and measures for their correction
c. the nature of the therapeutic effect of the drug

241. Highlight which criterion does not include patient instruction:
a. route of administration and method of administration of the drug
b. a single dose and frequency of administration of the drug
c. in the breadth of the therapeutic effect of the drug
d. storage rules
242. List the side effects of miglitol.
1) hypoglycemia
2) flatulence
3) increased appetite
4) diarrhea
243. List drugs that do not cause hypoglycemic reactions
1) glibenclamide
2) metformin
3) gliclazide
4) insulin
244. Indicate the effects of the interaction of amiodarone and disopyramids.
a) acceleration of the metabolism of disopyramide

b) slowing the metabolism of amiodarone
c) increased risk of side effects of disopyramide
d) increased risk of side effects of amiodarone

245. Indicate the side effect of nifidepine:
a) bradycardia
b) bronchospasm
c) swelling of the legs and feet
d) the development of AV blockade

246. Indicate NSAIDs for the treatment of arthritis in a patient suffering from peptic ulcer:
1. Indomethacin
2. Ibuprofen
3. Diclofenac
4. Acetaminophen
5. Celecoxib

247. An irrational combination of antihypertensive drugs is:
a) Diuretic beta-blocker.
b) Calcium antagonist diuretic.
c) Calcium antagonist beta-blocker.
d) Beta blocker ACE inhibitors.

248. For arterial hypertension with concomitant tachyarrhythmia, the drugs of choice are:
a) Beta-blockers.
b) Diuretics.
c) ACE inhibitors.
d) Preparations of central action.

249. The drug of choice for the treatment of arterial hypertension in pregnant women:
a) Clonidine.
b) Methyldopa.
c) Guangfacin.
d) Moxonidine.

250. Changes in the water-electrolyte balance during the treatment of ACE inhibitors:
a) Excretion of potassium, retention of sodium and water.
b) Excretion of potassium, sodium and water.
c) Excretion of sodium and water, potassium retention.
d) Withdrawal of water, retention of potassium and sodium.

251. Choose an ACE inhibitor that has two excretion routes:
a) Trandolapril.
b) Quinapril.
c) Fosinopril.
d) Perindopril.

252. Choose the group of drugs that is preferred in the treatment of hypertension in patients with severe renal failure:
a) ACE inhibitors
b) Angiotensin II receptor blockers
c) Beta blockers
d) Calcium antagonists

253. The advantage of AT1 receptor blockers over ACE inhibitors is:
a) It is possible to prescribe for the development of angioedema against the background of treatment with ACE inhibitors.
b) Perhaps the appointment of the initial hyperkalemia.
c) Possible appointment for renal artery stenosis

254. A feature of the action of thiazide and thiazide-like diuretics is:
a) "Low therapeutic ceiling" - a good effect at low doses.
b) Dose-dependent effect - an increase in diuresis with an increase in the dose of the drug.
c) withdrawal syndrome
d) The development of hypocalcemia.

255. Among all thiazide diuretics, a feature of indapamide is:
a) The best security profile.
b) A more pronounced diuretic effect.
c) Less pronounced hypotensive effect.
d) Negative effect on carbohydrate metabolism.

256. A specific feature of the pharmacodynamics of acetazolamide is:
a) Preservation of potassium ions.
b) Pronounced diuretic effect.
c) Dose-dependent effect.

d) Decrease in intracranial hypertension.
257. Choose the pharmacological group most preferred for the treatment of aspirin asthma:
a) crowns;
b) systemic glucocorticosteroids;
c) antileukotriene preparations;
d) inhaled M-anticholinergic drugs.

258. The development of the "gray" syndrome is characteristic when prescribed to newborns:
a) Chloramphenicol.
b) Gentamicin.
c) Ceftriaxone.
d) Tetracycline.
259. The combination of gentamicin with vancomycin is considered:
a) rational, due to an increase in the antibacterial activity of both drugs;
b) irrational due to the risk of high hepatotoxicity;
c) irrational due to a decrease in antibacterial activity;
d) irrational due to the risk of high neuro- and nephrotoxicity.
260. The risk of rhythm disturbances when using astemizole increases with the combined use of:
A) azithromycin
B) penicillin
B) erythromycin
D) cefatoxime

261. Long-term transdermal nitrate therapy lost effect by evening. Best strategy to restore efficacy:
A) Schedule a daily nitrate-free interval 10–12 h
B) Double patch dose
C) Add sildenafil at night
D) Switch to sublingual NTG only

262. Resistant HTN on ACEi+CCB+thiazide; K^+ 3.1 mmol/L. Next step:
A) Add spironolactone
B) Add clonidine
C) Add hydralazine
D) Switch ACEi→ARB

263. AF with RVR and HFrEF (EF 30%), hypotension borderline. Preferred acute rate control:
A) Amiodarone IV
B) Verapamil IV
C) Diltiazem IV
D) Adenosine IV

264. Post-MI VT treated with lidocaine. Class/mechanism:
A) Class Ib Na^+ channel block (fast on-off)
B) Class Ic Na^+ block (slow)
C) Class II β-block
D) Class III K^+ block

265. β-blocker for angina + migraine prophylaxis; asthma in history. Best choice:
A) Metoprolol
B) Propranolol
C) Nadolol
D) Sotalol

266. Elderly on nitroprusside infusion develops confusion + metabolic acidosis. Cause:
A) Cyanide accumulation
B) NO deficiency
C) Renal Na^+ loss
D) COX-1 inhibition

267. HFrEF on ACEi, loop, MRA. Which drug improves survival add-on?
A) Dapagliflozin
B) Digoxin
C) Ivabradine (HR 58)
D) Verapamil

268. Patient on warfarin starts TMP-SMX; INR↑ markedly. Mechanism:
A) CYP inhibition + protein-binding displacement
B) CYP induction

C) Increased vit K absorption
D) Enhanced renal excretion

268. ACS on dual antiplatelet therapy; needs urgent CABG within 24h. Which to hold first?
A) P2Y12 inhibitor (clopidogrel/ticagrelor)
B) Aspirin
C) Heparin
D) Atorvastatin

269. HTN emergency with aortic dissection suspicion. Best initial IV combo:
A) Esmolol before vasodilator
B) Nitroprusside alone
C) Hydralazine alone
D) Nicardipine alone

270. COPD maintenance to reduce exacerbations (FEV1 40%, frequent flares):
A) LABA/LAMA combination
B) SABA prn only
C) ICS monotherapy
D) Theophylline monotherapy

271. Asthma poorly controlled on low-dose ICS. Next preferred step:
A) Add LABA (ICS/LABA)
B) Add theophylline
C) Switch to LAMA
D) ICS dose ↓ and add SABA

272. Active H. pylori ulcer, no macrolide use before, low clarithromycin resistance region. Best regimen:
A) PPI + amoxicillin + clarithromycin (triple 14d)
B) PPI + ranitidine + bismuth
C) PPI + metronidazole + levofloxacin
D) H2RA + amoxicillin + clarithromycin

273. Upper GI bleed on chronic NSAIDs + steroids. Best immediate management:
A) Stop NSAID + high-dose IV PPI
B) Add misoprostol only
C) Switch to COX-2 now without PPI
D) Continue NSAID with food

274. Severe pyelonephritis; prior ESBL E. coli history. Best empiric IV:
A) Meropenem
B) Ceftriaxone
C) Ciprofloxacin
D) Amoxicillin-clavulanate

275. Community MRSA skin abscess; oral option:
A) Doxycycline
B) Amoxicillin
C) Cefalexin
D) Azithromycin

276. Bacterial meningitis (adult) pending cultures. Empiric combo:
A) Ceftriaxone + vancomycin ± ampicillin (age>50)
B) Piperacillin-tazobactam alone
C) Moxifloxacin alone
D) Cefazolin + doxycycline

277. Aminoglycoside toxicity monitoring prioritizes:
A) Rising creatinine & trough levels
B) Peak levels only
C) LFTs weekly
D) Platelets daily

278. Fluoroquinolone boxed warning most characteristic:
A) Tendinopathy/rupture
B) Aplastic anemia
C) Gray baby syndrome
D) Lactic acidosis

279. Febrile neutropenia empiric therapy should cover:
A) Pseudomonas aeruginosa
B) Anaerobes only
C) MRSA only
D) Atypicals only

280. Pregnancy UTI safe oral agent:
A) Amoxicillin-clavulanate
B) Tetracycline
C) Ciprofloxacin
D) TMP-SMX (1st trimester)

281. Warfarin patient needs azole antifungal. Expectation:
A) INR increases—dose ↓ and monitor
B) INR decreases—dose ↑
C) No interaction
D) Vitamin K supplementation

282. Dabigatran in CrCl 18 mL/min. Best action:
A) Avoid; choose alternative anticoagulant
B) Use standard dose
C) Double dose
D) Add aspirin

283. NSTEMI on ticagrelor needs clarithromycin for pneumonia. Risk:
A) ↑ Ticagrelor levels via CYP3A4 inhibition
B) ↓ Ticagrelor effect via induction
C) No interaction
D) Chelation in gut

284. Hyponatremia from SIADH on SSRIs. Drug to correct while continuing SSRI:
A) Tolvaptan
B) Desmopressin
C) Hydrochlorothiazide
D) Fludrocortisone

285. Resistant HTN in CKD with hyperkalemia on ACEi + MRA. Add agent that lowers K^+:
A) Loop diuretic
B) Amiloride
C) ARB
D) KCl supplement

286. Atrial fibrillation needing rhythm control; structural heart disease + LVH. Safer agent:
A) Amiodarone
B) Flecainide
C) Propafenone
D) Dronedarone (NYHA III)

287. HFrEF African-descent persistent symptoms on GDMT. Add:
A) Hydralazine/isosorbide dinitrate
B) Non-DHP CCB
C) Minoxidil
D) Ivabradine with HR 58

288. Patient on metformin develops sepsis + AKI (eGFR 24). Action:
A) Hold metformin (lactic acidosis risk)
B) Continue same dose
C) Double dose
D) Add acarbose

289. Status asthmaticus in ED unresponsive to SABA + ipratropium. Next:
A) IV magnesium sulfate
B) Leukotriene antagonist
C) Theophylline bolus
D) LABA inhaler

290.COPD patient frequent exacerbations, eosinophils 400/µL. Add to LAMA/LABA:

A) Inhaled corticosteroid
B) Theophylline
C) Roflumilast alone
D) Nebulized hypertonic saline

291. Peptic ulcer patient requires chronic NSAID for RA with very high GI risk. Best choice:
A) Celecoxib + PPI
B) Naproxen alone
C) Ibuprofen + H2RA
D) Diclofenac alone

292. Severe C. difficile colitis (hypotension). First-line:
A) Oral vancomycin (± IV metronidazole)
B) Oral metronidazole alone
C) IV vancomycin alone
D) Ciprofloxacin

293. Seizures on isoniazid overdose. Antidote:
A) Pyridoxine IV
B) Naloxone
C) Flumazenil
D) Atropine

294. Tylenol (acetaminophen) overdose 10 h after ingestion. Next step:
A) Start N-acetylcysteine now
B) Give charcoal only
C) Observe 24 h
D) Hemodialysis mandatory

295. Methotrexate weekly for RA + ibuprofen added → mucositis/cytopenia. Mechanism:
A) ↓ Renal clearance of MTX by NSAIDs
B) ↑ Hepatic metabolism
C) Folate loading
D) Protein binding increase

296.Opioid overdose with shallow breathing and miosis. Best immediate management:
A) Naloxone titrated IV
B) Flumazenil
C) N-acetylcysteine
D) Physostigmine

297. Elderly on digoxin with anorexia, nausea, arrhythmia; K^+ 2.9. Best acute correction:
A) Potassium repletion + adjust diuretic
B) Give Ca^{2+} IV
C) Start amiodarone
D) Add cholestyramine

298. DKA on insulin infusion; K^+ 3.2 and falling. Action:
A) Give IV potassium while continuing insulin
B) Stop insulin
C) Give bicarbonate only
D) Start spironolactone

299. Parkinson's patient on selegiline. Starts meperidine post-op → hyperthermia and agitation. Syndrome:
A) Serotonin syndrome
B) Neuroleptic malignant syndrome
C) Anticholinergic toxicity
D) Malignant hyperthermia

300. Cancer pain on high-dose morphine with renal failure accumulates active metabolites. Switch to:
A) Fentanyl
B) Codeine
C) Meperidine
D) Tramadol (CrCl 10)

301.Post-op DVT prophylaxis: heparin induced thrombocytopenia (HIT). Preferred anticoagulant:
A) Argatroban
B) Warfarin start immediately

C) LMWH
D) Fondaparinux if platelets <20k

302. Peptic ulcer bleed; needs NSAID chronically and high CV risk. Optimal analgesic plan:
A) Naproxen + PPI
B) Celecoxib alone
C) Ibuprofen alone
D) Diclofenac + misoprostol only

303. HIV patient on ritonavir-boosted regimen needs antiarrhythmic. Avoid due to CYP3A4:
A) Amiodarone high risk interaction
B) Sotalol safe
C) Procainamide safe
D) Lidocaine infusion safe

304.Elderly delirium with severe agitation; prolonged QT at baseline. Preferred antipsychotic:
A) Haloperidol IV high dose
B) Ziprasidone IM
C) Quetiapine (least QT impact at low dose)
D) Thioridazine

305. Acute decompensated heart failure with SBP 95, pulmonary edema. Best IV:
A) Nitroglycerin + loop diuretic
B) Diltiazem
C) Esmolol
D) Verapamil

306.STEMI within 90 min PCI unavailable; no bleeding risks. Best reperfusion:
A) Tenecteplase (fibrinolysis)
B) High-dose heparin alone
C) Clopidogrel only
D) Nitrate only

307.DVT treated with apixaban; strong CYP3A4/P-gp inducer (carbamazepine) started. Action:
A) Avoid combination; choose warfarin
B) Double apixaban
C) Add aspirin
D) No change

308. Severe hyperkalemia with ECG changes. Immediate temporizing measure:
A) IV calcium gluconate
B) Kayexalate first
C) Loop diuretic only
D) Oral bicarbonate

309. GI anthrax first-line therapy (adult) initial IV:
A) Ciprofloxacin
B) Amoxicillin
C) Azithromycin
D) Doxycycline alone in pregnancy

310. ICU septic shock; needs vasopressor of choice:
A) Norepinephrine
B) Dopamine
C) Phenylephrine
D) Epinephrine first-line

311.Torsades de pointes from QT prolongation. Acute drug of choice:
A) IV magnesium sulfate
B) Lidocaine
C) Amiodarone
D) Verapamil

312.Alcohol withdrawal severe with autonomic hyperactivity + seizures. Best regimen:
A) Benzodiazepines (diazepam/lorazepam)
B) Antipsychotic alone
C) Disulfiram
D) Naltrexone

313.Acute lithium toxicity; level high + AKI. Best intervention:
A) Hemodialysis
B) Forced diuresis only
C) Charcoal
D) Whole bowel irrigation

314.Organophosphate poisoning (miosis, salivation, wheeze). Immediate therapy:
A) Atropine + pralidoxime
B) Physostigmine
C) Propranolol
D) Neostigmine

315. Chronic gout with recurrent flares; on azathioprine for transplant. Uric acid high. Preferred urate-lowering:
A) Allopurinol is risky (xanthine oxidase) → use febuxostat?
A) Febuxostat (monitor)
B) Probenecid
C) High-dose aspirin
D) Colchicine as monotherapy long-term

316.Osteomyelitis MRSA bacteremia; nephrotoxicity risk with vanco high. Alternative IV:
A) Daptomycin
B) Linezolid for bacteremia
C) Nafcillin
D) Cefazolin

317.Severe hypertriglyceridemia-induced pancreatitis. Drug to lower TG fast:
A) IV insulin infusion
B) Niacin
C) Ezetimibe
D) PCSK9 inhibitor

318. Cancer chemo nausea refractory to ondansetron. Add:
A) NK1 antagonist (aprepitant)
B) H1 blocker alone
C) Metoclopramide only
D) Dronabinol first-line

320. Myasthenic crisis on high-dose steroids; needs rapid cholinesterase inhibition without long duration. Choice:
A) Pyridostigmine (oral maintenance), for crisis:
A) Neostigmine IV
B) Physostigmine
C) Donepezil
D) Rivastigmine

321.A 64-year-old man with ischemic heart disease is on long-term nitrate therapy. He reports that sublingual nitroglycerin has lost efficacy. Which strategy is most appropriate?
A) Introduce a nitrate-free interval during the day
B) Double the dose of nitroglycerin
C) Add sildenafil to enhance vasodilation
D) Switch to short-acting β_2-agonist

322.A hypertensive patient develops ankle edema and flushing after starting a new drug. Heart rate is slightly elevated. Which agent was most likely prescribed?
A) Amlodipine
B) Enalapril
C) Propranolol
D) Clonidine

323. A 72-year-old male with atrial fibrillation and heart failure is taking digoxin. After starting furosemide, he develops arrhythmias. The most likely mechanism:
A) Hypokalemia potentiating digoxin toxicity
B) Furosemide inhibiting digoxin metabolism
C) Digoxin decreasing sodium reabsorption
D) Hypermagnesemia–related bradycardia

324.A 60-year-old woman with angina and diabetes receives metoprolol. Soon she experiences hypoglycemia with absent adrenergic warning signs. The mechanism:

A) β-blocker masks sympathetic hypoglycemia symptoms
B) Metoprolol decreases hepatic glycogenolysis
C) β-blocker causes insulin hypersecretion
D) Central inhibition of glucagon release

326.A patient with severe hypertension is treated with IV sodium nitroprusside. After prolonged infusion, he develops metabolic acidosis and confusion. The cause is:
A) Cyanide ion accumulation
B) Excess nitric oxide production
C) Lactic acidosis from tissue ischemia
D) Renal sodium loss

327.A 40-year-old asthmatic is given propranolol for migraine prophylaxis and develops severe bronchospasm. What explains this reaction?
A) Blockade of β_2-receptors in bronchial smooth muscle
B) Reflex vagal activation
C) Anticholinergic rebound
D) Central histamine release

328.A patient with persistent ventricular tachycardia after MI receives IV amiodarone. Liver enzymes rise and thyroid function becomes abnormal. Which property of amiodarone explains this?
A) High iodine content and tissue accumulation
B) Inhibition of potassium efflux
C) Competitive β-blockade
D) Short plasma half-life and renal excretion

329.A patient treated for COPD with theophylline develops vomiting, tachycardia, and seizures after starting ciprofloxacin. What is the mechanism?
A) CYP1A2 inhibition increasing theophylline levels
B) Accelerated theophylline clearance
C) Protein binding displacement
D) Pharmacodynamic antagonism

230.A 68-year-old man with heart failure is on lisinopril, furosemide, and spironolactone. His serum K^+ rises to 6.5 mmol/L. Which drug combination is responsible?
A) ACE inhibitor + potassium-sparing diuretic
B) Loop + thiazide diuretic
C) ACE inhibitor + β-blocker
D) Diuretic + nitrate

231.A 55-year-old male with gastric ulcer takes omeprazole and clarithromycin for H. pylori infection. His warfarin dose was not changed, but INR increased. Why?
A) CYP2C19 inhibition by omeprazole and clarithromycin
B) Enhanced vitamin K absorption
C) Protein-binding displacement
D) Reduced absorption of warfarin

232.A 40-year-old woman on chronic NSAIDs for arthritis develops anemia and dark stools. Despite adding ranitidine, bleeding continues. The optimal next step:
A) Switch to a selective COX-2 inhibitor (celecoxib)
B) Add sucralfate
C) Reduce NSAID dose
D) Add antacids after meals

233.A patient treated with gentamicin and vancomycin develops renal failure. The mechanism of this interaction is:
A) Synergistic nephrotoxicity via accumulation in proximal tubules
B) Competitive inhibition of renal excretion
C) Protein-binding displacement
D) Antagonistic pharmacodynamics

234.A patient on isoniazid develops peripheral neuropathy. Which supplement prevents this effect?
A) Pyridoxine (vitamin B_6)
B) Niacin
C) Thiamine
D) Folic acid

A 32-year-old woman on oral contraceptives starts carbamazepine for epilepsy. Three months later she becomes pregnant. The explanation is:
A) Enzyme induction causing faster estrogen metabolism
B) Competitive inhibition of CYP450

C) Carbamazepine increased progesterone levels
D) Contraceptive absorption decreased

A 50-year-old alcoholic is treated with metronidazole and experiences flushing, vomiting, and tachycardia. Which mechanism explains this?
A) Inhibition of aldehyde dehydrogenase
B) CYP450 induction
C) Increased dopamine release
D) Histamine release

A 67-year-old man taking nitrates for angina also uses sildenafil. Shortly after co-administration, he collapses. The mechanism:
A) Excess cGMP accumulation → severe vasodilation
B) β-receptor overstimulation
C) Calcium influx blockade
D) Serotonin release

A patient receives multiple antibiotics including clindamycin. A week later, develops severe diarrhea and pseudomembranous colitis. The pathogen:
A) Clostridioides difficile
B) Staphylococcus aureus
C) E. coli
D) Klebsiella pneumoniae

A 75-year-old man on warfarin and TMP-SMX (trimethoprim-sulfamethoxazole) develops bleeding. What mechanism explains this?
A) Inhibition of warfarin metabolism and displacement from proteins
B) Induction of hepatic enzymes
C) Enhanced clotting factor synthesis
D) Increased renal excretion of warfarin

A patient with rheumatoid arthritis on methotrexate develops mucositis and cytopenia after taking ibuprofen for pain. Explanation:
A) Decreased renal clearance of methotrexate by NSAIDs
B) CYP450 induction
C) Folate depletion
D) Glucuronidation enhancement

A 70-year-old man with renal failure is prescribed morphine. After several doses he develops respiratory depression. Which pharmacokinetic property explains this?
A) Accumulation of active metabolites due to impaired renal excretion
B) Enhanced hepatic metabolism
C) Decreased absorption
D) Reduced protein binding