

**QUESTIONS TO THE STATE EXAM ON INTERNAL DISEASES, INFECTIOUS,  
TROPICAL AND PARASITIC DISEASES  
FOR THE STUDENTS OF THE 6 TH COURSE  
OF FACULTY FOR INTERNATIONAL STUDENTS  
FOR 2025-2026 ACADEMIC YEAR**

APPROVED

Dean of the Faculty for international students

Sherbakova E.N.  
2026

**Respiratory system diseases**

1. Pneumonia: definition, etiology, pathogenesis, classification. The main clinical and radiological manifestations of pneumonia, microbiological diagnostics. Diagnostic minimum examination in an outpatient setting. Treatment of pneumonia on an outpatient basis. Choice of initial antibiotic therapy. Criteria for the effectiveness of antibiotic therapy.
2. Pneumonia: classification, indications for hospitalization. Diagnostic minimum examination in the hospital. Antibacterial therapy of community-acquired pneumonia in hospitalized patients. Features of the treatment of patients with pneumonia caused by SARS-CoV-2.
3. Pneumonia severity. Criteria of severe pneumonia. Pneumonia complications. Antibiotics combinations for treatment. Pathogeneous treatment for severe pneumonia. H1N1-associated pneumonia – specificity and treatment.
4. Pleural diseases – etiology and pathogenesis, classification. Clinic signs depending on hydrothorax specificity. Pleural puncture – technique and pleural liquid assay interpretation.
5. Interstitial pulmonary diseases. Idiopathic pulmonary fibrosis. Respiratory bronchiolitis. Clinic signs, diagnostic approach and treatment.
6. Chronic obstructive pulmonary disease: definition, risk factors, pathogenesis, classification, diagnostic criteria. Spirometry in the diagnosis of COPD, bronchodilation test. Integral assessment of symptoms according to GOLD recommendations. The main goals and directions of COPD treatment. The main groups of drugs for the treatment of COPD.
7. Chronic obstructive pulmonary disease – bronchodilators and inhaled glucocorticosteroides. Management of stable COPD. Management of acute exacerbation of COPD. Oxygen therapy. Pulmonary rehabilitation. Monitoring the patients. The prognosis.
8. Bronchiectasis – etiology and pathogenesis, signs and symptoms. Diagnostic approach and treatment.
9. Restricted and non-restricted infectious lung destruction (lung abscess and gangrene) – etiology and pathogenesis, signs and symptoms. Diagnostic approach. Admission to hospital. The treatment of lung abscess.
10. Bronchial asthma: definition, risk factors, pathogenesis, diagnostic criteria, classification. Diagnostic minimum examination. Spirometry in determining the reversibility of bronchial obstruction. The value of peak flowmetry for the diagnosis and monitoring of bronchial asthma. Levels of control of bronchial asthma.
11. Bronchial asthma – asthma severity, evaluating according to GINA (2011). Asthma phenotypes. Treatment principles – controller and relievers medications. Treatment steps. Inhaled glucocorticosteroides. Asthma management and prevention. Managing severe asthma exacerbation. Nebulizer therapy.
12. Sarcoidosis: classification, clinical features, diagnostic approach, treatment.
13. Pulmonary embolism – definition, risk factors, diagnostic criteria and management.
14. Pulmonary hypertension – etiology and pathogenesis, diagnostic criteria and management.

## Cardiovascular diseases

15. Coronary Heart Disease (CHD): prevalence and classification. Silent ischemia of a myocardium. Distinctive features of ischemic pain.
16. The main approaches to stratification of cardiovascular risk. Principles of primary prevention of cardiovascular diseases. Nonpharmacological methods of prevention. Complex change of a diet. Principles of physical trainings. Secondary prevention of cardiovascular accidents.
17. Electrocardiogram and Holter in diagnostics of chronic coronary insufficiency. Tests with a drugs and physical activity. Noninvasive methods of diagnostics of CHD. Indications to a planned and diagnostic coronaroangiography.
18. Stable stenocardia: classification, diagnostics, treatment.
19. An acute coronary syndrome with elevation and non-elevation of a ST segment: definition, diagnostics, organizational tactics at a pre-hospital stage and in a hospital.
20. Myocardial infarction: definition, risk factors, classification, main atypical clinical forms. Classes of severity.
21. Myocardial infarction: laboratory and instrumental diagnostics of a myocardial infarction. Markers of a necrosis of a myocardium. Value of echocardiography.
22. Myocardial infarction: drug's therapy. Thrombolytic therapy and therapy with anticoagulants. Indicationstopercutaneouscoronaryinterventionandcardiactreatment.
23. Arterial hypertension: prevalence, modern classification, risk factors stratification, options of a disease course and complications of arterial hypertension.
24. Classification of symptomatic hypertension. Clinic features of nephrogenic, endocrine, hemodynamic, etc. arterial hypertension. Electrocardiogram and echocardiography for diagnosis of a myocardium hypertrophy. The plan and algorithm of patient's inspection in case of increasing of arterial pressure.
25. Classifications, mechanisms of formation, clinical and diagnostic criteria of the complicated hypertensive crises.
26. Modern hypotensive drugs. Strategic directions of hypotensive therapy. Prevention of sudden death, heart attack and stroke at persons with arterial hypertension.
27. Arrhythmias: etiology, pathogenesis, classification. Primary and secondary prevention of arrhythmias.
28. Atrial fibrillation and atrial flutter. Etiology. Pathogenesis. Clinic. Diagnostics. Complications. Treatment.
29. Syndrome of weakness of sinus node, atrioventricular impairment of conductivity, intraventricular blockades. Etiology. Pathogenesis. Clinic. Diagnostics. Treatment.
30. Treatment of heart arrhythmias: indications, emergency care, planned treatment, drug's and surgical treatment. Risk stratification of the embolic complications at atrial fibrillation.
31. Main reasons for appearing of heart murmurs. The parameters, specification of which is necessary for differential diagnostics of heart murmur: epicenter, irradiation, intensity, connection with the tones. Instrumental technologies for verification of the diagnosis.
32. Pericarditis: etiology, pathogenesis, classification, clinical manifestations, diagnostics. Treatment principles of different forms of pericarditis.
33. Myocarditis: classification, clinical manifestations, instrumental and laboratory methods of diagnostics. Endomyocardial biopsy, indications to carrying out.
34. Electrocardiogram at hormonal and metabolic impairments, a myocardium inflammation. Risk factors, etiological factors, clinical manifestation, classification, instrumental and laboratory methods of diagnostics.
35. Infectious endocarditis: etiology, pathogenesis, clinical manifestations, diagnostic criteria. Ways of verification of the diagnosis. Indications for surgical and drug's treatment. Basic principles of antibacterial therapy. Prevention of an infectious endocarditis.
36. Dissection of aneurism of the aorta: main aspects of etiology and pathogenesis. Risk factors. Ways of verification of the diagnosis. Choice of medical tactics depending on type of dissection the aorta.

37. Cardiomyopathy: etiology, pathogenesis, classification, clinical options, diagnostics, treatment.
38. Heart insufficiency: definition, etiology, pathogenesis, classification. Concept about the "latent" heart failure. Basic principles of diagnostics and differential diagnostics. Modern approaches to therapy. Surgical methods of treatment of chronic heart failure. Heart transplantation.

#### **Gastrointestinal diseases**

39. Gastroesophageal reflux disease (GERD): etiology, pathogenesis, classification, clinical manifestations, diagnostics, treatment.
40. Functional dyspepsia: definition, etiology, pathogenesis, classification, diagnostic criteria (the Rome III Consensus), treatment.
41. Chronic gastritis: definition, etiology, pathogenesis, classification, diagnostic criteria, clinical features of various forms of chronic gastritis, treatment.
42. Gastroduodenal ulcers: etiology, pathogenesis, classification, diagnostics, treatment. Diagnostics of complications of gastroduodenal ulcers.
43. Principles of drug's therapy of lesions of a gastroduodenal zone (*Helicobacter pylori* eradication, suppression of acid aggression, correction of motor and evacuation functions). Physiotherapy in treatment of ulcers. Prevention of recurrence of ulcers.
44. Symptomatic gastroduodenal ulcers: etiological factors, features of a clinical course of disease, diagnostics, treatment.
45. Cancer of a stomach. Therapeutic aspects of a problem - possibility of early diagnostics.
46. Gallstones and gallbladder disease: etiology, pathogenesis, clinical manifestation. Instrumental and laboratory methods of diagnostics. Differential diagnosis. Principles of treatment of a pain syndrome. Indications to surgical treatment.
47. Chronic pancreatitis: etiology, pathogenesis, classification, clinical manifestation, diagnostics, differential diagnosis. Main directions of conservative treatment: treatment of a pain syndrome, compensation of exocrine insufficiency, correction of impairment of the status of food.
48. Non-alcoholic fatty liver disease: etiology, pathogenesis, classification. Non- alcoholic steatohepatitis: clinical manifestations, diagnostics, treatment.
49. Chronic hepatitis: etiology, pathogenesis, classification, clinical manifestations, diagnostics, treatment.
50. Alcoholic hepatitis. Signs of alcoholic damage of other organs (chronic pancreatitis, myocardial dystrophy, encephalopathy, polyneuropathy, deficiency of food). Clinical manifestations. Features of laboratory and instrumental diagnostics. Liver biopsy. Treatment.
51. Wilson-Konovalov's disease: etiology, pathogenesis, clinical symptoms, laboratory and instrumental diagnostics, treatment (etiological, symptomatic). Primary and secondary prevention.
52. Liver cirrhosis: etiology, pathogenesis, classification, clinical symptoms, complications, diagnostics, treatment. Indications to liver transplantation.
53. Inflammatory bowel diseases: ulcer colitis, Crohn's disease. Diagnostic criteria. Extraintestinal manifestations. Complications. Differential diagnostics. Principles of drug's therapy. Indications to surgical treatment.

#### **Diseases of joints and connective tissue**

54. Systemic lupus erythematosus: etiology and pathogenesis, classification, main clinical manifestations, diagnostic criteria, treatment, prevention, forecast.
55. Systemic sclerosis: etiology and pathogenesis, classification, main clinical manifestations, diagnostic criteria, treatment, forecast.
56. Dermatomyositis: etiology and pathogenesis, classification, main clinical manifestations, diagnostic criteria, treatment, forecast.
57. Gout: pathogenesis, clinical manifestations, diagnostics, differential diagnostics, principles of treatment.
58. Osteoarthritis: etiology and pathogenesis, classification, main clinical manifestations, diagnostics, treatment, prevention, forecast.

59. Rheumatoid arthritis: etiology, pathogenesis, classification, clinical manifestations, diagnostic criteria, treatment. The concept "treatment before achievement of the purpose". The new directions in treatment of rheumatoid arthritis.
60. Erythema nodosum: etiology, pathogenesis, clinical symptoms, algorithm of differential diagnostics, etiological, pathogenetic and symptomatic therapy.
61. Infectious arthritis (tubercular, virus arthritis, Lyme borreliosis), diagnostics and principles of treatment.
62. Ankylosing spondylitis (Bekhterev's disease): etiology, pathogenesis, classification, clinical picture, diagnostics, treatment, forecast.
63. Osteoporosis: risk factors of development, classification, clinical picture, diagnostics, differential diagnostics of osteoporosis (osteopenia, osteomalacia), treatment, prevention.

#### **Kidney's diseases**

64. Chronic pyelonephritis: etiology and pathogenesis, classification, clinical symptoms, diagnostics, treatment, prevention, forecast. Criteria of a choice of antibacterial drugs.
65. Chronic glomerulonephritis: etiology, pathogenesis, classification, clinical manifestations, diagnostics, treatment, prevention, forecast.
66. Interstitial nephritis: definition, etiology, pathogenesis, classification, clinical symptoms, diagnostics, treatment, prevention, forecast. Features of the interstitial nephritis due to drugs.
67. Nephrotic syndrome: definition. The diseases predisposing development of a syndrome. Clinical manifestations. Diagnostic opportunities. Differential diagnostics. Medical tactics.
68. Damage of kidneys at diabetes mellitus, gout, system diseases of connecting tissue, the vasculitis. Diagnostic opportunities. Principles of the treatment.
69. Classification of the chronic kidney disease (CKD) and chronic kidney insufficiency (CKI). Clinical manifestations, diagnostics, medical tactics, forecast. Program hemodialysis. Peritoneal dialysis. Kidney transplantation.
70. Acute kidney insufficiency: etiology, pathogenesis, clinical manifestations, stages, diagnostics, medical tactics.

#### **Hematological diseases**

71. Iron deficiency anemias: etiology, pathogenesis, clinical symptoms, classification, methods of diagnostic, treatment, prevention.
72. Anemia due to deficiency of vitamin B<sub>12</sub> and folic acid deficiency anemia: etiology, pathogenesis, clinical symptoms, classification, methods of diagnostic, treatment, prevention.
73. Hemolytic anemias. Classification. Autoimmune hemolytic anemias: etiology, pathogenesis, clinical symptoms, complications, methods of diagnostic, treatment, forecast.
74. Hypoplastic and aplastic anemias: etiology, pathogenesis, clinical symptoms, classification, methods of diagnostic, treatment, forecast, prevention.
75. Chronic myelocytic leukemia: definition, etiological factors, pathogenesis, clinical symptoms, methods of diagnostic, complications, periods, treatment, forecasts.
76. Polycythemia: etiology, pathogenesis, clinical symptoms, methods of diagnostic, differential diagnostic with symptomatic erythrocytosis, complications, treatment, the forecasts.
77. Chronic lymphocytic leukemias: etiology, pathogenesis, clinical types, clinical syndromes, methods of diagnostic, complications, differential diagnosis, treatment, forecasts.
78. Multiple myeloma: etiology, pathogenesis, classification, clinical symptoms, methods of diagnostic, treatment, forecasts.
79. Acute leukemias: definition, etiology, pathogenesis, classification, clinical symptoms, methods of diagnostic, complications, basic principles of therapy, forecasts.
80. Lymphogranulomatosis: etiology, pathogenesis, classification, clinical symptoms, methods of diagnostic, treatment, forecasts.
81. Etiology, pathogenesis, classification of hemorrhagic hemostatic disorders. Types of bleeding and their methods of diagnostic.
82. Hemophilias: etiology, pathogenesis, clinical manifestations, methods of diagnostic, treatment, forecasts.

83. Hemorrhagic vasculitis (Shenleyn-Henoh's disease): etiology, pathogenesis, clinical types, methods of diagnostic, treatment, prevention, forecasts.
84. Etiology, pathogenesis, clinical types, methods of diagnostic, treatment of immune thrombocytopenias.

#### **Diseases of a metabolism and endocrine system**

85. Diabetes mellitus: etiology, pathogenesis, clinical manifestations and diagnostics of diabetes of types 1 and 2. Modern principles of diagnostics of impairment of a carbohydrate exchange.
86. Treatment principles of type 1 diabetes and type 2 diabetes: hypoglycemic medical drug's, diet and physical activity.
87. Late complications of diabetes (diabetic nephropathy, diabetic retinopathy, diabetic neuropathy, syndrome of diabetic foot): classification, main methods of diagnostic and treatment. Features of surgical interventions at patients with diabetes.
88. Thyrotoxicosis: etiology, pathogenesis, clinical manifestations, diagnostics, treatment methods – drugs, radiation therapy and surgical therapy.
89. Hypothyroidism: etiology, pathogenesis, clinical manifestations, diagnostics, principles of replacement therapy. Subclinical hypothyroidism: concept and criteria of verification influence on risk of development of somatic pathology and justification of expediency of treatment depending on age of manifestation of a disease.
90. Endemic hyperthyroidism: classification, diagnostics, treatment and prevention methods.
91. Cushing's syndrome, Konn's syndrome and pheochromocytoma: clinical manifestations, methods of diagnostic, principles of treatment.
92. Hypocorticism: etiology, pathogenesis, clinical manifestations, methods of diagnostic, replacement therapy.

#### **Phthysiopulmonology**

93. The causative agent of tuberculosis. Sources and ways of infection. Infection and the risk of tuberculosis. The aerobiology of tuberculosis transmission.
94. Diagnostic algorithm of examination of patients with suspected tuberculosis in outpatient and inpatient conditions.
95. Microbiological diagnosis of tuberculosis. Methods of collecting biological material for testing for the presence of Mycobacterium tuberculosis. Collection of sputum.
96. Drug resistance of Mycobacterium tuberculosis, clinical and epidemiological significance. Types of drug resistance. Treatment of tuberculosis patients secreting of drug-resistant mycobacteria.
97. Features of primary and secondary tuberculosis. Morphological structure of tuberculous granuloma. Types of morphological reactions in tuberculosis inflammation.
98. Clinical forms of primary tuberculosis in children and adolescents: diagnostic features, clinical course, radiological manifestations, outcomes, differential diagnosis.
99. Primary tuberculosis: pathogenesis and pathological anatomy. Risk factors for the development of primary forms of tuberculosis in children and adolescents.
100. Miliary pulmonary tuberculosis: pathogenesis and pathomorphology, clinical variants, diagnosis, differential diagnosis, prognosis.
101. Secondary pulmonary tuberculosis in adults: pathogenesis, pathomorphology, clinical forms, diagnosis, differential diagnosis.
102. Tuberculous meningitis: pathogenesis, clinic, diagnosis, differential diagnosis. The composition of cerebrospinal fluid in tuberculous meningitis.
103. Tuberculosis and HIV infection: features of the clinical course, diagnosis, treatment, prevention of tuberculosis in HIV-infected persons.
104. Tuberculosis and motherhood: detection, preservation of pregnancy, features of treatment, prevention of tuberculosis in newborns.
105. Specific prevention of tuberculosis. Characteristics of the BCG vaccine, BCG-M. Vaccination technique. Monitoring of the local vaccination reaction. Indications, contraindications to vaccination.
106. Foci of tuberculosis infection, their classification. Work in the focus of tuberculosis infection. Infection control measures in anti-tuberculosis institutions.

107. Basic principles and methods of tuberculosis treatment. Tuberculosis chemotherapy: basic principles, categories of patients, choice of chemotherapy regimen.

#### **Infectious diseases**

108. Sepsis: etiology, spectrum of causative pathogens in sepsis of unknown origin, pathogenesis, classification of sepsis "Sepsis-3", 2016. SOFA (Sequential Organ Failure Assessment) Score. Principles of choice of antibacterial drugs for starting empirical antibiotic therapy depending on the location of the primary focus of infection. Septic shock, diagnostics, pathogenetic drugs, emergency medical care.

109. HIV infection: transmission, high-risk groups, WHO clinical classification, opportunistic infections.

110. Principles of laboratory verification of HIV infection (ELISA, Western blot, PCR). Methods of prevention of HIV infection: pre-exposure, post-exposure prophylaxis, prevention mother to child transmission.

111. Antiretroviral therapy: general principles, regimens and main classes of antiretroviral drugs.

112. Infectious diseases of the respiratory system: influenza. Clinical picture, diagnosis, differential diagnosis of influenza. Treatment of uncomplicated and complicated forms of influenza, indications for hospitalization. Influenza vaccination.

113. Infectious diseases of the respiratory system: parainfluenza, adenovirus infection, respiratory syncytial, rhinovirus infection. Features of the clinical picture, diagnosis, treatment. Indications for hospitalization.

114. Coronavirus infection, COVID-19. Epidemiological characteristic, the current state of the problem in the world. Transmission. Clinical picture. Laboratory diagnostics of COVID-19 Treatment. Development and experience in the use of vaccines against COVID-19 infection.

115. Tonsillitis syndrome: diagnosis, spectrum of causative pathogens. Antibacterial drugs choice. Differential diagnosis of diphtheria and tonsillitis of other etiology (streptococcal tonsillitis, infectious mononucleosis). Therapeutic and diagnostic tactics of a doctor in case of suspected diphtheria. Specific prophylaxis of diphtheria.

116. Hepatitis syndrome: main clinical symptoms. Biochemical syndromes of liver damage. Specific laboratory diagnosis of viral hepatitis.

117. Enteral viral hepatitis: acute viral hepatitis A, E: clinical picture, diagnosis. Differential diagnosis with acute liver pathology of bacterial and parasitic etiology. Treatment, prevention.

118. Parenteral viral hepatitis: acute viral hepatitis B, C: clinical picture, diagnosis, differential diagnosis, treatment, prevention.

119. Chronic viral hepatitis B, C: clinical picture, methods of laboratory diagnostics. Determination of indications, contraindications, optimal regimens for antiviral treatment.

120. Complications of viral hepatitis: acute liver failure: clinical picture, diagnosis, principles of treatment.

121. Invasive diarrhea: main pathogens, clinical manifestations, diagnostic methods. Indicators for antibiotic therapy. The choice of antibacterial and antiprotozoal drugs.

122. Osmotic diarrhea: main pathogens, clinical manifestations, diagnostic methods, treatment and management, prevention.

123. Secretory diarrhea: main pathogens, pathogenesis, clinical manifestations, diagnostic methods.

124. Clinical and laboratory criteria for stages of dehydration. Principles of rehydration therapy. Hypovolemic shock, emergency medicine.

125. C.difficile-associated infection (antibiotic-associated diarrhea): epidemiology, etiology, pathogenesis, clinical forms, complications, diagnosis, etiotropic therapy, prevention.

126. Infectious diseases of the central nervous system: meningitis, encephalitis. Etiological structure of infectious pathology of the central nervous system. Syndromic diagnosis depends upon location of the infectious focus. Clinical manifestations of cerebral edema. Emergency medicine, evaluating the efficacy.

127. Primary and secondary purulent meningitis (meningoencephalitis). Etiological features, epidemiology, pathogenesis, clinical picture, diagnosis, treatment, choice of etiotropic therapy, prevention.
128. Meningococcal infection: modern epidemiological features, clinical classification, early diagnosis, differential diagnosis with infectious pathology of the central nervous system and exanthems of other etiologies, treatment and diagnostic tactics. Emergency medicine.
129. Infectious exanthems and enanthems. The main pathogens, differential diagnosis with non-infectious causes.
130. Hemorrhagic fever with renal syndrome: clinical picture, diagnosis, differential diagnosis, treatment, prevention.
131. Leptospirosis: clinical picture, diagnosis, differential diagnosis, treatment, prevention.
132. Lyme disease: clinical picture, diagnosis, differential diagnosis, treatment, prevention.
133. Rabies: clinical picture, diagnosis, differential diagnosis, prevention.
134. Erysipelas: clinical picture, diagnosis, differential diagnosis, treatment, prevention.
135. Tetanus: clinical picture, diagnosis, differential diagnosis, treatment, prevention.
136. Botulism: clinical picture, diagnosis, differential diagnosis, treatment, prevention.

### **Tropical and Parasitic Diseases**

137. Arboviral diseases. Classification of arbovirus infections, pathogenesis. Chikungunya fever, West Nile fever, Japanese encephalitis: geographical distribution, clinical and epidemiological features, diagnosis, differential diagnosis, treatment, prevention.
138. Viral hemorrhagic fevers. General characteristics of viral hemorrhagic fevers, pathogenesis, clinical manifestations.
139. Clinical and epidemiological features of hemorrhagic fevers transmitted by mosquitoes (Yellow fever, Rift Valley fever, Dengue fever). Methods of diagnostics, differential diagnosis, treatment, prevention.
140. Clinical and epidemiological features of hemorrhagic fevers transmitted by ticks (Crimean-Congo fever, Kyasanur forest disease). Methods of diagnosis, differential diagnosis, treatment, prevention.
141. Clinical and epidemiological features of contagious viral hemorrhagic fevers (Lassa, Marburg, Ebola). Methods of diagnostics, differential diagnostics, treatment, prevention.
142. Rickettsiosis. Anthroponotic and zoonotic rickettsiosis, features of epidemiology, distribution. Pathogenesis and clinical picture of rickettsiosis. Diagnosis and differential diagnosis of rickettsiosis with diseases occurring with fever syndrome. Principles and methods of treatment. Prevention of rickettsiosis.
143. Brucellosis: etiology, epidemiology, the main manifestations of the epidemic process, pathogenesis, classification, clinical picture, mechanism of development of typical manifestations and complications, diagnosis, principles and methods of treatment, prevention.
144. Malaria. Etiology, species of plasmodia, pathogenic for humans. The life cycle of pathogens: sporogony, tissue and erythrocytic schizogony. Geographical distribution of different types of malaria. Epidemiology. Sources of infection, transmission. Susceptibility to malaria. Immunity. Pathogenesis.
145. Clinical picture of malaria. Classification, characteristics of acute manifestations and relapses of various types of malaria. Malignant malaria: pathogenesis, complications, principles of clinical diagnosis. Methods of diagnosis: parasitologic, serological. Characteristics of modern antimalarial drugs and the principles of therapy for different types of malaria. Malaria prophylaxis: individual and public. WHO malaria program.
146. Visceral leishmaniasis. Etiology, pathogens, stages of development of parasites. Sources of infection, anthroponotic and zoonotic variants of visceral leishmaniasis. Transmission. Susceptibility, high-risk groups. Pathogenesis. Classification, stages of the disease, their clinical characteristics. Principles of clinical diagnostics. Parasitological and immunoserological diagnostics. Principles of treatment of visceral leishmaniasis. Prevention. WHO program for the control of leishmaniasis.
147. Cutaneous leishmaniasis. Transmission of cutaneous leishmaniasis of the Old and New Worlds. Susceptibility. Pathogenesis, stages of the infectious process, their duration, features of the immune

response. Clinical presentation. Principles of diagnosis. Basic treatment of cutaneous leishmaniasis in various geographical areas. Prevention.

148. African and American trypanosomiasis: etiology, biological characteristics of pathogens, pathogenesis, clinical characteristics of acute and chronic forms, disease periods, laboratory diagnostics, differential diagnostics, methods of treatment, prevention.

149. Acute intestinal infections in tropical countries, features of the etiology and epidemiology. Clinical syndromes, the influence of climatic factors, concomitant parasitic pathology. Treatment, etiological, rehydration, detoxification. International diarrheal diseases control program in tropical countries.

150. Amebiasis: epidemiology, etiology, biological characteristics of the pathogen, life cycle. Susceptibility, high-risk groups. Classification. Clinical picture. Complications. Parasitological diagnosis. Etiotropic treatment, pathogenetic therapy, surgical treatment, its effectiveness. Prevention.

151. Cryptosporidiosis. Etiology. Life cycle of the parasite. Epidemiology. Pathogenesis. Clinical picture. Diagnostics. Differential diagnosis. Treatment. Features of the clinic in HIV-infected persons. Prevention.

152. Helminthic infections in the tropics. General characteristics. Classification. Pathogenic effects of helminths on the human body.

153. Ascariasis. Etiology. Life cycle of the parasite. Epidemiology. Pathogenesis. Clinical picture. Diagnostics. Differential diagnosis. Treatment. Prevention.

154. Hookworm (*Ancylostoma*, *Necator*) infections. Etiology. Life cycle of the parasite. Epidemiology. Pathogenesis. Clinical picture. Diagnostics. Differential diagnosis. Treatment. Prevention.

155. Strongyloidiasis. Etiology. Life cycle of the parasite. Epidemiology. Pathogenesis. Clinical picture. Diagnostics. Differential diagnosis. Treatment. Prevention.

156. Filariasis. General characteristics. Life cycles of filariasis. Wuchereriosis. Etiology. Life cycle of the parasite. Epidemiology. Pathogenesis. Clinical picture. Diagnostics. Differential diagnosis. Treatment. Prevention.

157. Brugiass and loiasis. Etiology. Life cycle of the parasite. Epidemiology. Pathogenesis. Clinical picture. Diagnosis. Differential diagnosis. Treatment. Prevention.

158. Onchocerciasis. Etiology. Life cycle of the parasite. Epidemiology. Pathogenesis. Clinical picture. Diagnostics. Differential diagnosis. Treatment. Prevention.

159. Dirofilariasis. Etiology. Life cycle of the parasite. Epidemiology. Pathogenesis. Clinical picture. Diagnostics. Differential diagnosis. Treatment. Prevention.

160. Schistosomiasis. Etiology. Life cycle of the parasite. Epidemiology. Pathogenesis. Clinical picture. Diagnostics. Differential diagnosis. Treatment. Prevention.

161. Fascioliasis. Etiology. Life cycle of the parasite. Epidemiology. Pathogenesis. Clinical picture. Diagnostics. Differential diagnosis. Treatment. Prevention.

162. Diphyllbothriasis. Etiology. Life cycle of the parasite. Epidemiology. Pathogenesis. Clinical picture. Diagnostics. Differential diagnosis. Treatment. Prevention.

163. *Taenia saginata* infection. Etiology. Life cycle of the parasite. Epidemiology. Pathogenesis. Clinical picture. Diagnostics. Differential diagnosis. Treatment. Prevention.

164. Echinococcosis. Etiology. Life cycle of the parasite. Epidemiology. Pathogenesis. Clinical picture. Diagnostics. Differential diagnosis. Treatment. Prevention.

165. Venomous animals of the tropics. Classification of venomous animals. Poisonous coelenterates, poisonous fish, poisonous arthropods: the main representatives, the clinical picture of poisoning, first aid and treatment. Venomous snakes: classification, main representatives. Clinical manifestations of poisoning: local and systemic. Principles of first aid, treatment in health care institutions. Antitoxic serums, the rules of their appointment.

### **Differential Diagnosis**

166. Algorithm for differential diagnosis in febrile syndrome. Fever of unknown origin, searching for the cause febrile syndrome. Approach to the patient.

167. Algorithm for differential diagnosis of the syndrome of elevated ESR.

168. Differential diagnostic for dyspnea (bronchial asthma, COPD, bronchiolitis, respiratory dyskinesia, cardiac asthma, bronchial obturation (lung cancer, aspirated foreign bodies), neurogenious asphyxia).
169. Differential diagnostic for infiltrates – pneumonia and TB infiltrates, eosinophilic pneumonia, pulmonary embolism, connective tissue diseases, hypostatic lung infiltrates.
170. Differential diagnosis for lung atelectasis.
171. Differential diagnostic of pleural effusions (pneumonic, tuberculous, tumoral, effusions in cardiac, renal insufficiency, hepatic).
172. Differential diagnostic and treatment of disseminated lung diseases of unknown etiology and secondary lung lesions (sarcoidosis, interstitial pulmonary fibrosis, granulomatosis, systemic pulmonary vasculitis, accumulation diseases, "uremic" lung).
173. Differential diagnosis of primary and secondary hypertension.
174. Differential diagnosis of pain in the chest. Possible causes of chest pain. Pathology of myocardium, pericardium, manifested by pain in the heart. Chest pain associated with the pathology of the pleura, lung, spine.
175. Differential diagnosis of the diseases that manifest cardiomegaly.
176. Differential diagnosis of edema.
177. Differential diagnosis of heart murmurs. Parameters necessary for the refinement of the differential diagnosis of heart murmurs: the epicenter of the area, timbre, intensity, relationship with tones.
178. Differential diagnosis of inflammatory lesions of the myocardium.
179. Differential diagnosis for swallowing disorders. Symptomatology of diseases of the esophagus. Basic methods of diagnosis and differential diagnosis.
180. Differential diagnosis of the syndrome of gastric dyspepsia.
181. Differential diagnosis of hepatosplenomegaly. Tactics of doctors in identifying hepatosplenomegaly. Indications for consultation a surgeon, a haematologist.
182. Differential diagnosis of jaundice. Laboratory diagnosis of the syndrome of hepatocyte injury. Diagnostics of jaundice. Tactics of doctors in identifying hemolytic, parenchymal or obstructive jaundice.
183. Differential diagnosis of the diseases of the small and large intestines. Screening methods: occult blood in the stool, sigmoidoscopy, colonoscopy, double-contrast barium enema.
184. Differential diagnosis of ascites (portal hypertension, ascites tumor origin, ascites due to high pressure in the inferior vena cava, ascites inflammatory origin, ascites in other diseases). Diagnostic paracentesis: indications, technique, interpretation of data.
185. Algorithm of differential diagnosis of joint's diseases considering mono-, oligo- polyarticular in the onset of lesions; duration of the articular syndrome; sex, age, involvement of various organs and systems; changes identified through laboratory and instrumental examination.
186. Diagnostic algorithm of systemic connective tissue diseases. Features articular syndrome, the clinical manifestation in systemic connective tissue diseases. Differential diagnosis.
187. Diagnostic algorithm of systemic vasculitis. Differential diagnosis. Immunological diagnosis. Prognosis.
188. Differential diagnosis of the diseases, the pathogenesis of which is loss of glomeruli of nephrons and defeat renal tubular apparatus.
189. Differential diagnosis of the pathological urinary sediment.
190. Differential diagnosis of anemia syndrome.
191. Differential diagnosis of lymphadenopathy.

### **Emergency conditions and treatment**

192. Pneumothorax: causes of development, forms, clinic and treatment. Diagnosis and emergency at the valve pneumothorax.
193. Hemoptysis and pulmonary hemorrhage: etiology, pathogenesis, clinical features and diagnosis, differential diagnosis. Emergency and routine therapy.
194. Severe attack of asthma: diagnosis, emergency treatment. Treatment of status asthmaticus.

195. Asystole. Ventricular tachycardia. Ventricular fibrillation. Emergency care. Sequence and major resuscitation technique during cardiac arrest.
196. Complicated hypertensive crisis: emergency aid. Indications for hospitalization.
197. Pulmonary edema: diagnostic criteria and basic first aid.
198. Cardiogenic shock. Classification, diagnostic criteria. Emergency care.
199. Pathogenesis and classification of syncope. Critical ischemia of brain structures. Reasons for neuroreflexory syncopal syndrome. Syncope of cardiovascular origin. Special syncope. Emergency care.
200. Emergency care in acute coronary syndrome and with the rise segment elevation ST.
201. Paroxysmal cardiac arrhythmias: diagnosis and emergency care.
202. Acute left ventricular failure. Clinic and diagnosis of pulmonary edema. Emergency care: reducing the preload on the heart, the pressure in the pulmonary circulation, reducing the volume of circulating fluid.
203. Acute right ventricular failure. Clinic, diagnostics, emergency care.
204. Cardiac tamponade: clinical presentation, diagnosis, organizational and emergency care. Indications for pericardiocentesis.
205. The term "acute abdomen". Pathogenesis and clinical manifestation. Tactics therapist in detecting acute surgical abdomen.
206. Hepatic colic: clinical features, diagnosis, organizational and emergency care.
207. Gastrointestinal bleeding: clinical, diagnostic, emergency assistance. Indications for surgical treatment.
208. Hepatic coma: clinical manifestations, laboratory and instrumental changes. Emergency medical care.
209. Ketoacidic coma: stage, clinical manifestations, laboratory diagnosis, emergency care.
210. Hypoglycemic coma: etiopathogenesis, clinical manifestations, diagnosis, principles of emergency care at various stages.
211. Thyrotoxic crisis: etiopathogenesis, clinical manifestations, diagnosis, principles of emergency care at various stages.
212. Anaphylactic shock: etiology, pathogenesis, clinical picture, diagnosis, emergency treatment measures, prevention.
213. Kvinke's edema: etiology, pathogenesis, clinical manifestations, diagnosis, emergency treatment, prevention.
214. Renal colic: causes, clinical features, diagnosis, differential diagnosis, treatment tactics.
215. Anemic coma: causes, clinical picture, diagnosis, treatment tactics.
216. Hemolytic crisis: causes, pathogenesis, clinic, diagnostics, medical tactic, prevention.

### **Neurology and Neurosurgery**

217. Classification, epidemiology, risk factors, main pathogenetic mechanisms of vascular diseases of the nervous system.
218. Transient disorders of cerebral circulation (transient ischemic attacks, acute hypertensive crisis, acute hypertensive encephalopathy, transient global amnesia): clinic, diagnosis, examination algorithm.
219. Stroke, pathogenetic subtypes (atherothrombotic, cardioembolic, hemodynamic, hemorheological, lacunar). Clinical features of stroke in carotid and vertebrobasilar system.
220. Intracranial hemorrhage (non-traumatic subarachnoid, parenchymal, ventricular hemorrhage): etiology, pathogenesis, clinical features. Differential diagnosis of stroke and intracerebral hemorrhage.
221. Emergency medical care for acute disorders of cerebral circulation. Basic (undifferentiated) and differentiated stroke therapy.
222. The procedure for providing medical care for stroke patients at the pre-hospital, hospital and outpatient stages. Thrombolysis: indications and contraindications for use. Indications and contraindications for surgical treatment.
223. Chronic ischemia of the brain: classification, clinic, diagnosis and treatment.
224. Purulent meningitis (meningococcal, secondary): etiology, epidemiology, clinic, diagnosis,

treatment.

225. Serous meningitis (enteroviral, tuberculous, syphilitic): etiology, epidemiology, clinic, diagnosis, treatment.
226. Encephalitis: classification. Seasonal encephalitis (tick-borne): etiology, epidemiology, clinic, diagnosis, treatment.
227. Polyseasonal encephalitis (herpetic encephalitis): etiology, epidemiology, clinic, diagnosis, treatment.
228. Lyme disease, etiology, epidemiology, clinic, diagnosis, treatment.
229. Multiple sclerosis. Etiology, pathogenesis, clinic, diagnostics, McDonald's diagnostic criteria. Multiple sclerosis. Principles of treatment.
230. Neurodegenerative diseases of the brain (Parkinson's disease, Alzheimer's disease), etiology, pathogenesis, clinic, diagnosis, treatment.
231. Acute inflammatory demyelinating polyradiculoneuropathy of Guillain-Barre. Etiology, pathogenesis, clinic, diagnostics, treatment.
232. Damage to the nervous system in diabetes mellitus. Diabetic polyneuropathy. Pathogenesis, clinic, diagnostics, treatment.
233. Back Pain. Classification of neurological manifestations of osteochondrosis of the spine. Reflex, radicular and radicular-vascular syndromes at the cervical, thoracic and lumbosacral levels.
234. Back Pain. Cervical reflex and radicular syndromes (cervicalgia, cervicocranialgia, cervicobrachialgia, radiculopathy). Vertebrogenic cardialgia: typical and atypical. Chest manifestations. Thoracalgia. Differential diagnosis.
235. Back Pain. Reflex syndromes at the lumbosacral level (lumbago, lumbalgia, lumboischialgia). Discogenic radicular lumbosacral radiculopathy. Methods and possibilities of instrumental diagnostics.
236. Back Pain. Reflex syndromes of neurological manifestations of osteochondrosis of the spine at the cervical, thoracic and lumbosacral levels, clinical picture, diagnosis, treatment.
237. Back Pain. Complex therapy of neurological manifestations of osteochondrosis of the spine. Medical therapy. Rational approaches to the appointment of non-steroidal anti-inflammatory drugs. Adjuvant therapy for pain syndrome. Indications for surgical treatment.
238. Radiculopathy C5-C6, C7-C8, L2-L4, L5-S1. Clinic, diagnosis, treatment.
239. Mononeuropathy of the nerves of the upper limb (radial, ulnar, median): clinic, diagnosis, treatment.
240. Mononeuropathy of the nerves of the lower limb (sciatic, femoral): clinic, diagnosis, treatment.
241. Epilepsy. Definition, etiology, pathogenesis, classification of epileptic seizures. Clinic of focal and generalized epileptic seizures. Diagnosis of epilepsy.
242. Epileptic status. Definition, pathogenesis. Emergency care for epileptic seizures and status.
243. Myasthenia. Etiology, pathogenesis, classification, clinical manifestations, diagnosis, differential diagnosis. Principles of treatment.
244. Myasthenic and cholinergic crises, clinical features, emergency care.
245. Migraine. Pathogenesis, classification, clinic, diagnosis, treatment, prevention.
246. Tension headache. Etiology, pathogenesis, clinic, diagnosis, differential diagnosis, treatment and prevention.

Head of the department of Internal Diseases No 1  
with the courses Endocrinology and Hematology PhD Assoc.Prof.

E.G.Malaeva