

APPROVED

at the Meeting of the Department of Internal
Diseases, Cardiology and Rheumatology
with a course of advanced
training and retraining
Protocol #9 of 19.03.2026
Head of the Department
A.M.Prystrom

**4TH YEAR MEDICAL FACULTY FOR INTERNATIONAL STUDENTS
INTERNAL DISEASES EXAM QUESTIONS
IN 2025-2026 ACADEMIC YEAR**

1. Acute bronchitis: etiology, pathogenesis, clinical manifestations, diagnosis, treatment and prevention.
2. Chronic bronchitis: definition, etiology, pathogenesis, clinical manifestations, diagnosis, differential diagnosis, treatment and prevention.
3. Chronic obstructive pulmonary disease: definition, epidemiology, risk factors, clinical manifestations, classification, extrapulmonary manifestations.
4. Chronic obstructive pulmonary disease: instrumental diagnostic methods, pulmonary function tests, differential diagnosis.
5. Chronic obstructive pulmonary disease: complications, principles of treatment of patients with a stable course of the disease and exacerbation.
6. Pneumonia: etiology, predisposing factors, pathogenesis, classification, clinical manifestations, criteria of disease severity.
7. Pneumonia: clinical course of pneumonia depending on the type of pathogen and the state of the immune system. Laboratory, instrumental, X-ray diagnostic tests in pneumonia.
8. Pneumonia: differential diagnosis, complications. Medical emergencies in pneumonia.
9. Pneumonia: treatment of pneumonia, hospital discharge and recovery criteria, prognosis, prevention.
10. Asthma: classification, diagnosis of various forms of asthma, role of spirometry and peak flow measurement in detection of the variability of symptoms and lung function indices.
11. Asthma: treatment strategy based on the severity of symptoms at the onset of asthma and on the degree of control of the advanced disease. Inhalation therapy for asthma, prevention, prognosis.
12. Pleural effusion: etiology and pathogenesis. Differential diagnosis of exudate and transudate. Treatment of pleural effusion, indications for surgical treatment.
13. Pleurisy: classification, clinical manifestations, diagnosis, course of the disease. Indications and technique of pleural puncture.
14. Suppurative lung disease: definition, classification. Risk factors for the development of suppurative lung disease.
15. Etiology of lung abscess and pulmonary gangrene. Clinical manifestations and diagnosis of acute and chronic abscesses of lung and mediastinum, pulmonary gangrene.

16. Complications of suppurative lung disease. Principles of non-surgical methods of treatment of suppurative lung disease, indications for surgical treatment.
17. Pulmonary bleeding: clinical manifestations, diagnosis, therapeutic and diagnostic bronchoscopy, conservative treatment.
18. Bronchiectasis: etiology and pathogenesis, clinical manifestations, principal diagnostic methods, complications, conservative treatment, indications for surgical treatment.
19. Pulmonary embolism: risk factors, causes and mechanisms of development, classification, clinical manifestation, diagnosis, differential diagnosis.
20. Pulmonary embolism: urgent treatment, primary and secondary prevention.
21. Pulmonary hypertension: mechanisms of development, risk factors, clinical classification, diagnosis, principles of treatment, complications, outcomes and prognosis.
22. Cor pulmonale: definition, causes and mechanisms of development of acute and chronic cor pulmonale, classification, clinical signs.
23. Cor pulmonale: laboratory and instrumental tests, principles of drug therapy, outcomes, prognosis, prevention.
24. Hypertension: etiology and pathogenesis, risk factors, target organ damage. Hypertension-mediated diseases. Risk stratification and prognosis.
25. Hypertension: classification. Plan of examination of a patient with hypertension.
26. Hypertension: principles of treatment, complications, prognosis, prevention.
27. Hypertensive crises: definition, classification, clinical manifestations of different types of hypertensive crises, basic principles of treatment (blood pressure reduction).
28. Secondary hypertension: classification, clinical manifestations, diagnosis and differential diagnosis, treatment.
29. Atherosclerosis: etiology, pathogenesis, risk factors for atherosclerosis. Types of hyperlipidemia. Clinical manifestations and diagnosis of atherosclerosis according to predominant localization. Principles of treatment.
30. Coronary heart disease: etiology, pathogenesis, WHO classification. High-tech surgical treatment techniques. Prognosis.
31. Angina pectoris: classification, pathogenesis. Characteristics of pain syndrome in angina pectoris. Stable angina functional classification. Silent myocardial ischemia.
32. Angina pectoris: diagnostic criteria and clinical variants of unstable angina. Atypical clinical manifestations of angina pectoris, differential diagnosis.
33. Principles of treatment of angina pectoris: rapid relief of symptoms of angina pectoris attack, management of stable angina pectoris. Possible outcomes in angina pectoris.
34. Acute coronary syndrome: definition, clinical manifestations, diagnosis, management of ST-elevation/non-ST-elevation acute coronary syndrome. Differentiated approach to treatment. Coronary artery revascularization.
35. Myocardial infarction: risk factors, pathogenesis of myocardial necrosis, typical and atypical clinical presentations, characteristics of pain syndrome.

36. Myocardial infarction: laboratory and instrumental tests. ECG diagnosis of myocardial infarction: transmural and subendocardial damage, localization, evolution of ECG. Biochemical markers of myocardial damage.
37. Myocardial infarction: differential diagnosis, complications. Emergency medical care for complications of myocardial infarction.
38. Myocardial infarction: principles of treatment. Medical care for myocardial infarction at the prehospital stage. Indications for surgical treatment. Prognosis. Primary and secondary prevention.
39. Risk factors, electrophysiological mechanisms of arrhythmias and heart blocks. Classification of arrhythmias. Basic diagnostic methods for arrhythmias and heart blocks. 24-hour ECG monitoring.
40. Extrasystoles: etiology, classification, clinical manifestations, ECG diagnostic criteria, antiarrhythmic therapy, prevention.
41. Atrial fibrillation and flutter: etiology, pathogenesis, classification, ECG diagnostic criteria, clinical symptoms.
42. Drug treatment of atrial fibrillation and flutter: treatment of paroxysmal and permanent types, risk scales of thromboembolic complications and bleeding, antiplatelet and anticoagulant therapy. Preparation of a patient for cardioversion.
43. Paroxysmal arrhythmias, clinical picture (characteristics of hemodynamics during an attack). ECG-diagnosis of paroxysmal tachycardia. Differential diagnosis of ventricular and supraventricular paroxysmal tachycardia.
44. Paroxysmal tachycardia: algorithms of attack management. Indications for electrical cardioversion, transcatheter radiofrequency ablation of the arrhythmia source.
45. Ventricular preexcitation syndromes: Wolff-Parkinson-White (WPW), Clerk-Levy-Cristesco (CLC). ECG diagnostics, treatment. Limitations in prescribing antiarrhythmic drugs in patients with WPW syndrome.
46. Ventricular fibrillation: etiology, clinical manifestations, ECG diagnosis, algorithm of cardiopulmonary resuscitation.
47. Sinoatrial heart blocks: etiology, pathogenesis, ECG diagnosis. Complications: Morgagni-Adams-Stokes syndrome, heart failure. Drug treatment, temporary cardiac pacing, permanent pacemaker implantation. Prognosis.
48. Atrioventricular heart blocks: etiology, pathogenesis, ECG diagnosis. Complications: Morgagni-Adams-Stokes syndrome, heart failure. Drug treatment, temporary cardiac pacing, permanent pacemaker implantation. Prognosis.
49. Indications for cardiac implantable electronic devices (pacemakers, cardiac resynchronization therapy devices, cardioverter-defibrillators).
50. Gastroesophageal reflux disease: definition, major risk factors, pathogenesis, classification, clinical picture, extraesophageal manifestations, instrumental diagnosis, treatment.
51. Functional dyspepsia: definition, causes, pathogenesis, classification, clinical manifestations, differential diagnosis, treatment.
52. Chronic gastritis: definition, role of exogenous and endogenous factors in the development of the disease, pathogenesis, classification. Basic methods of

- chronic gastritis diagnosis. Treatment of *Helicobacter pylori*-associated gastritis and other types of gastritis.
53. Peptic ulcer disease: definition, etiology and pathogenesis, aggressive and protective factors for gastric mucosa, clinical manifestations according to the localization of the ulcer.
 54. Peptic ulcer disease: instrumental diagnosis, differential diagnosis. Complications of peptic ulcer disease. General practitioner strategies for managing patients with complications of gastroduodenal ulcers. Treatment of uncomplicated ulcers. Indications for surgical treatment.
 55. Secondary peptic ulcers: definition, NSAID-induced gastropathy, mechanisms of ulcer formation, endoscopic characteristics, clinical manifestations, risk factors for bleeding, treatment, prevention.
 56. Enteropathy: definition, etiology, pathogenesis, classification, clinical manifestations. Major syndromes in enteropathy: maldigestion, malabsorption, protein-losing enteropathy.
 57. Methods for diagnosis of enteropathy, differential diagnosis. Treatment of enteropathy: diet, antibiotic therapy, probiotics and prebiotics, enzyme therapy, management of intestinal motility disorders.
 58. Gluten-sensitive enteropathy (celiac disease): etiology, pathogenesis, clinical manifestations, diagnosis, treatment, prevention, prognosis.
 59. Ulcerative colitis: etiology, pathogenesis, classification, clinical manifestations, criteria for the disease activity assessment, complications, diagnosis, treatment.
 60. Crohn's disease: etiology, pathogenesis, classification, clinical manifestations, instrumental methods for diagnosis, treatment.
 61. Irritable bowel syndrome: prevalence, etiology and pathogenesis. Clinical manifestations and diagnostic criteria for the main types of irritable bowel syndrome. Treatment. Prevention.
 62. Functional disorders of the biliary tract: definition, pathogenesis, classification, clinical manifestations. Diagnosis and treatment of functional gallbladder disorder, biliary-type sphincter of Oddi dysfunction and pancreatic-type sphincter of Oddi dysfunction.
 63. Chronic pancreatitis: etiological factors, classification, clinical picture, criteria for the assessment of the disease severity, laboratory and instrumental methods of diagnosis, treatment.
 64. Alcoholic and non-alcoholic fatty liver disease. Etiology, pathogenesis, clinical manifestations, diagnosis, treatment.
 65. Gilbert's syndrome: clinical manifestations, diagnosis, treatment, prognosis.
 66. Chronic hepatitis: epidemiology, etiology, pathogenesis (according to the etiological factors), treatment.
 67. Biochemical liver function tests for liver injury, cholestasis, hepatic synthetic capacity, inflammation.
 68. Criteria for the assessment of activity of chronic hepatitis: clinical, biochemical, morphological.
 69. Autoimmune hepatitis: definition, etiology, pathogenesis, principal clinical symptoms (hepatic and extrahepatic), diagnosis, prognosis.

70. Chronic viral hepatitis: clinical presentation depending on the type of viral infection (B, C, D, E), verification of viral hepatitis, complications, prognosis, primary prevention, vaccination.
71. Chronic drug-induced hepatitis. Hepatotoxic drugs. Mechanisms of direct drug metabolites-induced liver cytotoxicity. Clinical and biochemical manifestations.
72. Cryptogenic hepatitis: definition, differential diagnosis.
73. Cirrhosis of the liver: etiology, pathogenesis, classification, diagnosis, differential diagnosis.
74. Clinical manifestations of viral, alcoholic, primary and secondary biliary cirrhosis of the liver. Hypersplenism. Complications of cirrhosis of the liver.
75. Principles of treatment of cirrhosis of the liver. Indications for liver transplantation.
76. Primary biliary cirrhosis (primary biliary cholangitis): etiology, pathogenesis, clinical manifestations, diagnosis, treatment.
77. Wilson's disease: etiology, pathogenesis, clinical manifestations, diagnosis, treatment, prevention, prognosis.
78. Hemochromatosis: etiology, pathogenesis, clinical manifestations, diagnosis, treatment, prevention, prognosis.
79. Acute glomerulonephritis: etiology, pathogenesis, clinical manifestations. Nephritic syndrome. Diagnostic methods, principles of treatment, outcomes, prognosis. Prevention of poststreptococcal glomerulonephritis.
80. Chronic glomerulonephritis: pathogenesis, classification (clinical and morphological). The role of kidney biopsy in the diagnosis. Assessment of kidney function. Urinalysis abnormalities. Differentiated approach to the treatment.
81. Urinary tract infection: clinical manifestations, diagnosis, treatment.
82. Chronic pyelonephritis: etiology, classification, clinical manifestations, diagnosis, treatment, prevention of exacerbations.
83. Tubulointerstitial nephritis: causes, diagnosis, differential diagnosis with glomerulonephritis, treatment.
84. Nephrotic syndrome: the most common diseases that cause nephrotic syndrome, pathogenesis, clinical manifestations, diagnosis, complications, management.
85. Renal amyloidosis: etiology, pathogenesis, classification. Clinical stages of renal amyloidosis, diagnosis, role of kidney biopsy, management, prevention.
86. Chronic kidney disease (CKD): classification. The most common diseases that cause CKD. Clinical manifestations. Conservative treatment. Extracorporeal detoxification therapies. Renal transplantation.
87. Bleeding diathesis: definition, causes, classification, types of bleeding, diagnostic methods.
88. Immune thrombocytopenia: principal etiological factors, pathogenesis of bleeding, clinical manifestations, diagnosis, differential diagnosis with secondary thrombocytopenia, treatment.
89. Hemophilia: types, pathogenesis of bleeding, clinical manifestations, course of disease, diagnosis, treatment, prevention, prognosis.

90. Hereditary hemorrhagic telangiectasia (Rendu-Osler-Weber disease): pathogenesis of bleeding, clinical manifestations, diagnosis, treatment.

In addition to the examination card, each student will receive an ECG for interpretation (ECG signs of ischemia, subendocardial and transmural myocardial infarction, atrial and ventricular hypertrophy, automaticity disorders, atrial, junctional and ventricular extrasystoles, conduction disorders).

LIST OF ESSENTIAL MEDICINES

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| 1. Azithromycin | 21. Dopamine | 41. Pantoprazole |
| 2. Ambroxol | 22. Drotaverine | 42. Prednisolone |
| 3. Amiodarone | 23. Isosorbide mononitrate | 43. Procainamide |
| 4. Amikacin | 24. Indapamide | 44. Propranolol |
| 5. Amlodipine | 25. Ipratropium bromide | 45. Rivaroxaban |
| 6. Amoxicillin | 26. Captopril | 46. Rosuvastatin |
| 7. Atorvastatin | 27. Carvedilol | 47. Salbutamol |
| 8. Acetylsalicylic acid | 28. Clarithromycin | 48. Salmeterol |
| 9. Acetylcysteine | 29. Clopidogrel | 49. Tiotropium bromide |
| 10. Beclomethasone | 30. Levofloxacin | 50. Ursodeoxycholic acid |
| 11. Bisoprolol | 31. Lisinopril | 51. Fenoterol |
| 12. Budesonide | 32. Losartan | 52. Fluconazole |
| 13. Vancomycin | 33. Morphine | 53. Furosemide |
| 14. Verapamil | 34. Meropenem | 54. Cephalexin |
| 15. Hydrochlorothiazide | 35. Methylprednisolone | 55. Cefepime |
| 16. Diclofenac | 36. Metoprolol | 56. Ceftriaxone |
| 17. Diltiazem | 37. Metronidazole | 57. Ciprofloxacin |
| 18. Diphenhydramine | 38. Nifedipine | 58. Enalapril |
| 19. Doxycycline | 39. Omeprazole | 59. Enoxaparin sodium |
| 20. Domperidone | 40. Ofloxacin | 60. Epinephrine |

Note: For each drug a student must know pharmacological characteristics, indications, contraindications, side effects and be able to write a prescription.