

**PROGRAMME QUESTIONS ON INTERNAL MEDICINE  
FOR FINAL EXAMINATION TO 6th YEAR GRADUATED STUDENTS OF FACULTY  
OF INTERNATIONAL STUDENTS SUBORDINATION «GENERAL PRACTICE» ON A  
SPECIALTY 1-79 01 01 «GENERAL MEDICINE»**

**I. Respiratory system disorders**

1. Pneumonia: definition, classification, etiology, pathogenesis. Main clinical presentations of pneumonia. Treatment.
2. Differentiated antibiotic therapy for lung disease. Clinical pharmacology of antibacterial drugs.
3. Pneumonia: complications and their treatment. Outcomes. Periodic health examination of patients with acute pneumonia. Prophylaxis.
4. Atypical pneumonia: epidemiology, clinical picture, differential diagnostics, approaches to treatment, antiepidemic measures, prophylaxis.
5. Acute bronchitis. Definition, etiology, pathogenesis, clinical features. Diagnosis and differential diagnosis, treatment and prevention.
7. Chronic obstructive pulmonary disease. Definition. Etiology, pathogenesis. Classification. Clinical variants (emphysematous and bronchitical). Complications. Therapy, depending on stages (basic therapy with bronchodilators, corticosteroids). Preventing exacerbations.
8. Multiple bronchiectasis: etiology, pathogenesis, clinical picture, complications. Diagnostics and treatment.
9. Bronchial asthma: definition, etiology, pathogenesis, classification, clinical picture. Diagnostics. Rapid relief of asthma of different levels of severity.
10. Pleurisy: etiology, pathogenesis, classification, main clinical presentations according to the character of effusion, diagnostics. Treatment.
11. Alveolitis. Idiopathic pulmonary fibrosis, exogenous (toxic) alveolitis. The clinical picture, diagnosis, treatment.
12. Acute and chronic purulent destruction of the lungs, lung abscess, lung gangrene. Features of pathogenesis, course, clinical manifestations. Diagnostic approach. Choosing the place of treatment of patients, features of treatment.
13. Pulmonary hypertension. Causes, classification, diagnostic methods. The main principle in the treatment of pulmonary hypertension.
14. Pulmonary heart disease: classification, etiology, pathogenesis. The main clinical manifestations of compensated and decompensated pulmonary heart disease, diagnosis, course and treatment.

**II. Cardiovascular diseases**

1. Epidemiology and classification of coronary heart disease. The concept of "ischemic cascade." Basic approaches to cardiovascular risk stratification.
2. Classification, diagnosis and treatment of stable angina. Relief of pain attack.
3. Modern methods of treatment of chronic ischemic heart disease.
4. Non-invasive diagnosis of ischemic heart disease. Indications for routine and diagnostic coronary angiography.
5. Silent myocardial ischemia, medical and social significance, diagnosis and therapeutic tactics.
6. Acute coronary syndrome with ST segment elevation. Definition, diagnosis, organizational tactics in the prehospital and hospital stage. Emergency care, differentiated approach. Methods of reperfusion therapy. Medicine therapy.
7. Acute coronary syndrome without ST segment elevation. Definition, diagnosis, organizational tactics in the prehospital and hospital stage. Risk stratification scale GRACE. Emergency care, differentiated approach. Methods of reperfusion therapy. **Pharmacological** therapy.

8. Myocardial infarction: etiology, pathogenesis, clinical variants (typical and atypical), severity classes. ECG diagnosis and laboratory diagnosis. Thrombolytic and anticoagulant therapy. Indications for percutaneous coronary intervention and cardiac surgery treatment.
9. Complications of myocardial infarction (cardiogenic shock, pulmonary edema), diagnosis and treatment.
10. Arterial hypertension: etiology, pathogenesis, classification, risk stratification, clinical picture, treatment.
11. Symptomatic arterial hypertension. Differential diagnosis, treatment features.
12. Plan and algorithm evaluation of patients with elevated blood pressure. Differentiated approach to treatment.
13. Acute rheumatic fever: etiology, pathogenesis, clinical picture, treatment.
14. Mitral valve disease: etiology, pathogenesis, clinical picture, treatment.
15. Aortic valve disease: etiology, pathogenesis, clinical picture, treatment.
16. Infective endocarditis: etiology, pathogenesis, clinical picture, diagnostic criteria and treatment.
17. Chronic heart failure: etiology, pathogenesis, clinical picture. Classification of the heart failure. Modern approaches to therapy. Surgical treatment of chronic heart failure.
18. Pericarditis: etiology, pathogenesis, classification, clinic, treatment.
19. Myocarditis: etiology, pathogenesis, classification, clinical picture, diagnostics of myocarditis. Treatment.
20. Cardiomyopathies: definition, classification, clinical types and their diagnostics. Treatment.
21. Primary cardiomyopathies: differential diagnostics. Treatment.
22. Paroxysmal arrhythmias: clinical picture, ECG -diagnostics, treatment.
23. Heart blocks: clinical picture, ECG-diagnostics, treatment.
24. Rehabilitation of the patients with myocardial infarction.
25. Algorithm for the diagnosis and treatment of syncope
26. Features of the treatment of arterial hypertension, acquired valvular heart disease in pregnant women.

### **III. Gastrointestinal diseases**

1. Diagnostic capabilities and value of instrumental methods in gastroenterology: endoscopic, ultrasound, electrometric (Ph-metry), radiological, radioisotope, magnetic resonance imaging. Indications and contraindications for instrumental studies.
2. Diseases of esophagus. Etiology. Clinical picture and diagnostics of esophagitis, achalasia of esophagus, cancer of esophagus. Therapeutic aspects of treatment.
3. Gastroesophageal reflux disease: causes, differential diagnosis, treatment.
4. Chronic gastritis. Main etiological agents. Clinical picture, main syndromes. Classification. Possibilities of diagnostics. Treatment according to the form and phase of disease. Periodic health examination.
5. Duodenal and gastric ulcer. Etiology. Features of pathogenesis of duodenal and gastric ulcer. Clinical picture depending on the ulcer localization. Treatment. Periodic health examination.
6. Clinical picture of duodenal and gastric ulcer complications. Possibilities of early diagnostics. Therapeutic management. Prophylaxis (seasonal and year-round) of peptic ulcer.
7. Chronic enterocolitis. Etiology. Pathogenesis. Clinical picture depending on the localization and character of morphological changes. Main syndromes. Diagnosis. Treatment. Prognosis. Periodic health examination.
8. Ulcerative colitis and Crohn's disease. Main causative factors. Clinical picture according to localization and level of morphological changes. Differential diagnosis. Complications. Treatment.

9. Chronic pancreatitis. Etiology. Pathogenesis. Clinical picture. Classification. Diagnosis, differential diagnostics. Treatment according to the form and phase of disease. Periodic health examination.
10. Chronic hepatitis. Etiology. Pathogenesis. Main morphological manifestations. Classification. Clinical picture. Main clinical syndromes. Differential diagnosis. Treatment. Prognosis.
11. Liver cirrhosis. Etiology. Morphological features. Main syndromes. Pathogenesis of clinical laboratory syndromes. Differential diagnosis. Complications. Treatment.
12. Chronic cholecystitis. Etiological factors. Clinical picture. Diagnostic criteria. Treatment in acute attack of disease and remission.
13. Biliary dyskinesia. Etiology. Pathogenesis. Clinical picture. Differential diagnostics. Treatment. Prophylaxis.
14. Cholelithiasis (gallstone disease). Etiology. Pathogenesis. Clinical picture: acute attack of disease and remission. Complications. Indications for surgery. Therapeutic management. Prophylaxis.

#### **IV. Renal diseases**

1. Diagnostic capabilities of the laboratory and instrumental methods of research in nephrology. Assessment criteria of kidneys functional state. Main methods of investigation and their interpretation. Kidney biopsy (indications and contraindications).
2. Acute glomerulonephritis (acute nephritic syndrome): etiology and pathogenesis, classification, clinical picture, diagnostics and treatment.
3. Chronic glomerulonephritis (chronic nephritic syndrome): etiology and pathogenesis, classification, clinical picture according to the type of disease, complications, treatment.
4. Chronic kidney disease. Main causes and classification. Differential diagnosis. Treatment. Prognosis.
5. Acute kidney injury (acute renal failure): etiology and pathogenesis, main clinical presentations, stages of the disease, treatment.
6. Chronic renal failure: etiology and pathogenesis, main clinical presentations, classification, outcomes, treatment. Treatment of chronic renal failure end stage. Extracorporeal therapy for kidney failure. Kidney transplantation.
7. Chronic pyelonephritis: etiology and pathogenesis, clinical picture, diagnostics, treatment. Preventing exacerbations.
8. Tubulointerstitial nephritis: etiology, pathogenesis, clinical features, treatment.
9. Nephrotic syndrome: etiopathogenesis, clinical picture. Differential diagnosis. Treatment.
10. Renal disease in diabetes, gout, systemic disease connective tissue, vasculitis. Diagnostic. Principles of treatment.

#### **V. Blood diseases**

1. Iron-deficiency anemia: etiology, pathogenesis, clinical picture, classification, diagnostics, treatment.
2. Vitamin B12 deficiency anemia: etiology, pathogenesis, clinical picture, classification, diagnostics, treatment.
3. Classification of hemolytic anemia, main diagnostic criteria, principles of therapy.
4. Aplastic anemia: etiology, pathogenesis, clinical picture, classification, diagnostics, treatment.
5. Causes of leukemoid reactions. Complete blood count results.
6. Diagnosis and differential diagnosis of leukemoid reactions and hemoblastosis. Principles of treatment of hemoblastosis.
7. Acute myeloid leukemia: etiopathogenesis, clinical syndromes, diagnosis. Treatment approaches.
8. Acute lymphoblastic leukemia: etiopathogenesis, clinical picture, diagnosis. Treatment approaches.

9. Chronic myeloid leukemia: etiology, pathogenesis, clinical picture, diagnostics. Treatment approaches.
10. Chronic lymphocytic leukemia: etiology, pathogenesis, clinical picture, diagnosis, approaches to therapy.
11. Erythremia (polycythemia vera): etiology, pathogenesis, clinical picture, diagnostics, outcome, treatment.
12. Myeloma: pathogenesis, clinical variants, diagnostic criteria, approaches to therapy.
13. Hemorrhagic diathesis: etiology, pathogenesis, classification. Treatment of thrombocytopenic purpura.
14. Hemophilia: etiology, pathogenesis, clinical presentations, diagnostics, treatment.
15. Hemorrhagic vasculitis: etiology, pathogenesis, clinical types, diagnostics, treatment.

## **VI. Metabolism and endocrine system disorders**

1. Diffuse toxic goiter: etiology and pathogenesis, main clinical presentations, classification, treatment, indications for surgery.
2. Hypothyroidism: etiology and pathogenesis, classification, main clinical presentations, diagnostics, treatment.
3. Diabetes mellitus: etiology and pathogenesis, classification, clinical picture, complications and clinical course, severity criteria, treatment.
4. Chronic adrenocortical insufficiency: etiology and pathogenesis, main clinical presentations, complications and clinical course, treatment.
5. Cushing's disease and syndrome: etiology and pathogenesis, main clinical presentations, diagnostics, complications and clinical course, treatment.
6. Pheochromocytoma: pathogenesis of main clinical presentations, symptomatology, diagnostics, treatment.

## **VII. Connective tissue diseases, joint diseases**

1. Systemic lupus erythematosus: etiology and pathogenesis, classification, main clinical presentations, clinical course and outcomes, treatment. Clinical pharmacology of corticosteroids. Pulse therapy: indications, contraindications, side effects.
2. Systemic sclerosis: etiology and pathogenesis, classification, main clinical presentations, clinical course and outcomes, treatment.
3. Dermatomyositis: etiology and pathogenesis, classification, main clinical presentations, clinical course and outcomes, treatment.
4. Rheumatoid arthritis: etiology and pathogenesis, classification, main clinical presentations, diagnosis, clinical course and outcomes, treatment.
5. Osteoarthritis: etiology and pathogenesis, classification, main clinical presentations, diagnosis, treatment.
6. Gout: etiology and pathogenesis, classification, main clinical presentations, clinical course, diagnosis, treatment.
7. Psoriatic arthritis: etiology, pathogenesis, clinical picture, diagnosis, differential diagnosis, treatment.
8. Ankylosing spondylitis: etiology, pathogenesis, clinical picture, diagnosis, differential diagnosis, and treatment.
9. Reactive arthritis: etiology, pathogenesis, clinical picture, diagnosis, differential diagnosis, treatment.
10. Osteoporosis. Risk factors for osteoporosis. Classification. Clinical picture, diagnosis. Treatment. Primary and secondary prevention of osteoporosis.
11. Erythema nodosum: etiology, principles of diagnosis and treatment.
12. Large vessels vasculitis (Takayasu's disease, Horton's disease): main clinical manifestations, diagnosis, complications, approaches to therapy.
13. Polyarteritis nodosa: etiology and pathogenesis, main clinical manifestations, course, complications, treatment.

14. ANCA-associated vasculitis (granulomatosis with polyangiitis, microscopic polyangiitis, eosinophilic granulomatosis with polyangiitis): main clinical manifestations, diagnosis, complications, approaches to therapy.
15. Modern treatment options for rheumatic diseases: non-steroidal anti-inflammatory drugs, glucocorticosteroids, cytostatics, biological drugs.

### **VIII. Occupational diseases**

1. Vibration disease: etiology and pathogenesis, clinical picture, diagnosis, differential diagnosis, principles of treatment and prevention, assessment of professional suitability
2. Pneumoconiosis: etiology and pathogenesis, main clinical presentations, treatment, assessment of professional suitability.
3. Occupational allergic diseases (bronchial asthma): features of the clinic, diagnosis, treatment and prevention, assessment of professional suitability.
4. Chronic lead intoxication: pathogenesis, main clinical presentations, diagnosis and treatment.
5. Occupational bilateral neurosensory hearing loss: pathogenesis, clinical picture, diagnosis, criteria for determining the severity, treatment, assessment of professional suitability

### **IX. Tuberculosis**

1. Tuberculosis causative agent, transmission of disease.
2. Millitary and disseminated pulmonary tuberculosis, clinical picture and differential diagnostics.
3. Infiltrative pulmonary tuberculosis, clinical picture and differential diagnostics.
4. Fibro-cavernous pulmonary tuberculosis, clinical picture and differential diagnostics.
5. Pulmonary tuberculoma, clinical picture and differential diagnostics.
6. Pulmonary hemoptysis and pulmonary hemorrhage. Diagnostics and approaches to treatment.
7. Spontaneous pneumothorax: diagnosis, treatment.
8. Laboratory diagnostics of tuberculosis (bacterioscopic, bacteriological, molecular genetic).
9. Main approaches and methods of treatment of patients suffering from tuberculosis.
10. Infection control in tuberculosis facilities.

### **X. Diagnostics and differential diagnostics**

1. Differential diagnosis for pulmonary infiltration syndrome.
2. Differential diagnosis for chest pain.
3. Differential diagnosis for pulmonary edema.
4. Differential diagnosis for swallowing disturbances (dysphagia).
5. Differential diagnosis for gastrointestinal bleeding.
6. Differential diagnosis for pulmonary and gastric bleeding.
7. Differential diagnosis for jaundice.
8. Differential diagnosis for ascites.
9. Differential diagnosis for renal colic.
10. Differential diagnosis for joint disorders.
11. Differential diagnosis for broncho-obstructive syndrome.
12. Differential diagnosis for case of sudden suffocation.
13. Differential diagnosis for fever of unknown origin in the clinic of internal diseases.
14. Differential diagnosis for elevated ESR syndrome.

### **XI. Military medicine**

1. Pathogenesis and clinical picture of acute radiation sickness due to external radiation exposure.

2. Features of radiation sickness caused by the ingress of radioactive substances into the body.
3. General principles of treatment of acute radiation sickness.
4. Chronic radiation sickness: symptomatology, diagnosis, treatment.
5. Combined radiation injuries: structure, diagnostics.
6. Diseases of internal organs in gunshot and mine-explosive injuries: classification, characteristics of syndromes and organopathological changes, clinical picture, diagnosis, treatment
7. Early and late diseases due to blast injury. Treatment.
8. Crush syndrome: etiology, pathogenesis, clinical picture, diagnosis, treatment.
9. Burn disease: classification, characteristics of common syndromes, clinical picture, treatment.
10. Electromagnetic radiation of the microwave range: mechanism of action, classification, clinical picture, diagnosis, treatment

## **XII. Infectious diseases**

1. Differential diagnosis of fever of unknown origin. Algorithm of the patient's examination. The diagnostic measures to establishing the infectious and non-infectious etiology of fever.
2. Differential diagnosis of infectious diseases occurring with CNS lesions. Syndromes of defeat of the membranes of the brain and the substance of the brain and spinal cord. Clinical manifestations. Complications. Diagnostic algorithm. Interpretation of the liquorogram. Principles of antimicrobial and pathogenetic therapy.
3. Clinical and laboratory diagnosis of influenza and COVID-19. Criteria of severity, complications. Features of highly endemic strains. Etiotropic and pathogenetic therapy. Preventive measures in the treatment of patients at home and in the polyclinic.
4. Differential diagnosis of acute intestinal infections. Infectious diarrhea: etiological, epidemiological, pathogenetic, clinical and laboratory aspects. Differential diagnostic with acute surgical pathology (acute appendicitis, acute pancreatitis, acute cholecystitis, mesotrombosis, peritonitis). Algorithm for examining patients with diarrhea syndrome. Assessment of the severity of exsiccosis. Rehydration therapy, principles of etiotropic therapy.
5. Clinical, epidemiological and laboratory criteria for the diagnosis of viral hepatitis A, B, C, D and E. Antiviral therapy of chronic hepatitis B and C.
6. HIV infection. Epidemiological situation in the world and the Republic of Belarus. Ways of infection. Risk groups. Classification of HIV Infection (WHO Classification). Diagnostic of HIV Infection. Principles of antiretroviral therapy. Clinical examination, prevention of opportunistic infections.
7. Sepsis, septic shock. Etiological structure of sepsis in the clinic of infectious diseases. Classification. Diagnostic criteria. Multiple organ failure. Principles of etiological verification and antibacterial therapy of sepsis.
8. Tropical malaria. Clinic, diagnostics, treatment and prevention. Complications of tropical malaria, treatment.
9. Dengue fever. Ebola Fever. Etiology. Epidemiology. Clinic, classification, diagnostics, treatment and prevention.
10. Yellow fever. Etiology. Epidemiology. Clinic, classification, diagnostics, treatment and prevention.
11. Visceral and cutaneous leishmaniasis: etiology, epidemiology, clinical presentation, diagnostics, treatment, prevention.
12. Cholera: etiology, epidemiology, pathogenesis, clinic. diagnostics, treatment and prevention.
13. African trypanosomiasis (Gambian and Rhodesian). Etiology, epidemiology, clinic, diagnostics, treatment and prevention.
14. Brucellosis: etiology, epidemiology, clinic, diagnostics, treatment and prevention.

15. Typhoid fever: etiology, epidemiology, clinical presentation, diagnostics, treatment and prevention.
16. Schistosomiasis: etiology, epidemiology, clinical presentation, diagnostics, treatment and prevention of intestinal, urinary and Japanese schistosomiasis.
17. Drankunculosis: etiology, epidemiology, clinic, diagnostics, treatment and prevention.
18. Strongyloidosis: etiology, epidemiology, clinical picture, diagnostics, treatment and prevention.
19. Echinococcosis: etiology, epidemiology, clinic, diagnostics, treatment and prevention.
20. Cysticercosis: etiology, epidemiology, clinic, diagnostics, treatment and prevention.
21. Amebiasis: etiology, epidemiology, clinic, classification, diagnostics, treatment, prevention.
22. Vukhirerioz: etiology, epidemiology, clinic, classification, diagnostics, treatment, prevention.
23. American trypanosomiasis. Etiology, epidemiology, clinic, diagnosis, treatment and prevention.

### **XIII. Rehabilitation**

1. Methods of medical rehabilitation, indications and contraindications for medical rehabilitation.
2. Principles of medical rehabilitation. The difference between medical rehabilitation and treatment.
3. Criteria of vital activity, the concept of a functional class. Evaluation of the effectiveness of medical rehabilitation.
4. Massage as a mean of rehabilitation of patients in the clinic of internal diseases, classification, indications and contraindications.
5. Classification of the means of kinesitherapy, their description. Contraindications for the appointment of physical therapy.
6. Reflexotherapy, methods of influence in reflexotherapy, acupuncture point, its properties, search methods.
7. Ergotherapy, as a method of medical rehabilitation. Principles, indications.
8. Medico-technical means of rehabilitation.
9. Functional stress tests. Classification of stress tests. Indications for exercise testing.
10. Reflexotherapy in internal diseases, possible complications and their prophylaxis. Reflexotherapy contraindications.
11. Methods of physiotherapy, indications and contraindications for their application.
12. Means and methods of medical rehabilitation used for patients with cardiovascular diseases.
13. Exercise tests used in cardiology.
14. Medical rehabilitation of the patients with joints diseases.
15. Means and methods of medical rehabilitation used in pulmonology.
16. Exercise testing used in pulmonology.
17. Basic principles and methods of using electrotherapy. Indications and contraindications.
18. Basic principles and methods of application of magnetotherapy. Indications and contraindications.
19. Basic principles and methods of application of light therapy. Indications and contraindications.
20. Complex application of therapeutic physical factors. Classification of therapeutic physical factors, general contraindications to their appointment.

### **XIV. Clinical immunology and allergology**

1. Anaphylaxis, principles of diagnosis, emergency care, prevention.
2. Urticaria, etiopathogenesis, principles of treatment and prevention.

3. Angioedema, etiopathogenesis, diagnosis and treatment.
4. Primary immunodeficiency. Principles of diagnosis and treatment.
5. Physiological immunodeficiencies (early childhood, pregnancy, old age). Clinical and laboratory features, prevention of infectious diseases.
6. Side effects of drugs: etiology, pathogenesis, classification, clinical manifestations, course, treatment.

Head of the Department of  
Internal Medicine I



M. Dzeshka