**MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION**
**MINISTRY OF EDUCATION, SCIENCE, AND INNOVATION OF THE KYRGYZ REPUBLIC**

**IEO HE Kyrgyz-Russian Slavic University**
**named after the First President of the Russian Federation B.N. Yeltsin**

**ENDORSED BY**
Dean of the faculty
_____
23.10 2025

# PROFESSIONAL CYCLE
# Hospital therapy

## Course Outline (Module)

| | |
|---|---|
| Assigned to | **Department of Therapy №2 (specialty "General Medicine")** |
| Academic Curriculum | 310501_25_1 ld in.plx<br>560001 General Medicine (For foreign students) |
| Qualification | **Physician (General Medicine)** |
| Mode of Study | **Intramural (full-time)** |
| Total Credit Value | **11 credit points** |

| | |
|---|---|
| Hours according to the | 330 |
| including: | |
| classroom activities | 192 |
| independent work | 136.8 |

Types of control in semesters:
credit 7,8,9
pass with a grade of 10

**Distribution of course hours by semester**

| Semester (<Course>.<Semester in the course>) | 7 (4.1) | | 8 (4.2) | | 9 (5.1) | | 10 (5.2) | | Total | |
|---|---|---|---|---|---|---|---|---|---|---|
| Weeks | 17 | | 17 | | 16 | | 16 | | | |
| Type of activity | UP | RP | UP | RP | UP | RP | UP | RP | UP | RP |
| Lectures | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 64 | 64 |
| Practical | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 32 | 128 | 128 |
| Contact work during the theoretical training period | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 1.2 | 1.2 |
| Including int. | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 14 | 14 |
| Total auditorium | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 48 | 192 | 192 |
| Contact work | 48.3 | 48.3 | 48.3 | 48.3 | 48.3 | 48.3 | 48.3 | 48.3 | 193.2 | 193.2 |
| The work itself | 41.7 | 41.7 | 41.7 | 41.7 | 11.7 | 11.7 | 41.7 | 41.7 | 136.8 | 136.8 |
| Total | 90 | 90 | 90 | 90 | 60 | 60 | 90 | 90 | 330 | 330 |

The program was compiled by:

*PhD, MD, Associate Professor, Mirbakieva D.M.; PhD, MD, senior teacher, Tolebaeva A.A.; senior teacher, Belinova A.V.; teacher, Bapygulova S.A.*

Reviewer(s):

*Doctor of Medical Sciences, Professor, Polupanov A.G.*

Work program of the discipline

compiled on the basis of the curriculum:

560001 General Medicine (For international students)

approved by the Academic Council of the University on June 30, 2025_minutes No. 13

The work program was approved at the department meeting

Protocol No. 1 dated August 26, 2025

The program is valid from the 2025 to 2030 academic year.

Head of the Department, Doctor of Medical Sciences, Professor, Head of the Department of Therapy 2 Sabirov I.S.

**Approval of the RPD for implementation in the next academic year**

Chairman of the UMS
__ _____ 2026

The work program was reviewed, discussed and approved for
execution in the 2026-2027 academic year at a department meeting

Protocol dated __ _____ 2026 No. __
Head of the Department, Doctor of Medical Sciences, Professor, Head of the Department of Therapy 2
Sabirov I.S.

**Approval of the RPD for implementation in the next academic year**

Chairman of the UMS
__ _____ 2027

The work program was reviewed, discussed and approved for
execution in the 2027-2028 academic year at a department meeting

Protocol dated __ _____ 2027 No. __
Head of the Department, Doctor of Medical Sciences, Professor, Head of the Department of Therapy 2
Sabirov I.S.

**Approval of the RPD for implementation in the next academic year**

Chairman of the UMS
__ _____ 2028

The work program was reviewed, discussed and approved for
execution in the 2028-2029 academic year at a department meeting

Protocol dated __ _____ 2028 No. __
Head of the Department, Doctor of Medical Sciences, Professor, Head of the Department of Therapy 2
Sabirov I.S.

**Approval of the RPD for implementation in the next academic year**

Chairman of the UMS
__ _____ 2029

The work program was reviewed, discussed and approved for
execution in the 2029-2030 academic year at a department meeting

Protocol dated __ _____ 2029 No. __
Head of the Department, Doctor of Medical Sciences, Professor, Head of the Department of Therapy 2
Sabirov I.S.

| 1. OBJECTIVES OF LEARNING THE DISCIPLINE | |
|---|---|
| 1.1 | 1.1 The main goal of teaching hospital therapy is to enable students to study various variants of the course of the main nosological forms of diseases of internal organs (previously studied in the course of faculty therapy) and relatively rare nosologies, complications of diseases, as well as the differential diagnosis of syndromes frequently encountered in clinical practice and issues of their differentiated therapy. |
| 1.2 | 1.2 To provide students with knowledge of the clinical manifestations of common internal diseases studied in the faculty therapy course, as well as rare forms and complications of diseases; to promote the development of clinical thinking in future physicians - the ability to make a comprehensive clinical diagnosis based on collected patient information, taking into account the course of these diseases and their complications; to teach the basic principles and development of adequate treatment tactics; as well as measures for the prevention of internal diseases (to prepare students for industrial practice after the 5th year). |
| 1.3 | – skills of independent clinical thinking during industrial practice. |

| 2. PLACE OF DISCIPLINE IN THE STRUCTURE OF THE OOP | |
|---|---|
| OOP cycle (section): | B1.O.03 |
| **2.1** | **Requirements for preliminary preparation of the student:** |
| 2.1.1 | Outpatient therapy |
| 2.1.2 | Evidence-based medicine |
| 2.1.3 | Clinical practice (Assistant physician of an outpatient clinic) |
| 2.1.4 | Clinical Practice (Assistant to an Emergency and Urgent Care Physician) |
| 2.1.5 | Research work |
| 2.1.6 | Clinical pharmacology |
| 2.1.7 | Psychiatry, medical psychology |
| 2.1.8 | Faculty therapy |
| 2.1.9 | Endocrinology |
| 2.1.10 | Radiation diagnostics |
| 2.1.11 | Pathophysiology, clinical pathophysiology |
| 2.1.12 | Pathological anatomy |
| 2.1.13 | Propaedeutics of internal diseases |
| 2.1.14 | Immunology |
| 2.1.15 | Normal physiology |
| **2.2** | **Disciplines and practices for which mastery of this discipline (module) is necessary as a prerequisite:** |
| 2.2.1 | Infectious diseases |
| 2.2.2 | Clinical practice (Assistant physician of an outpatient clinic) |
| 2.2.3 | Clinical Practice (Assistant to an Emergency and Urgent Care Physician) |
| 2.2.4 | Clinical pharmacology |
| 2.2.5 | Research work |
| 2.2.6 | Evidence-based medicine |
| 2.2.7 | Outpatient therapy |
| 2.2.8 | Family medicine |
| 2.2.9 | Preparing for and passing the state exam |
| 2.2.10 | Standards of diagnosis and treatment |

| 3. STUDENT COMPETENCIES DEVELOPED AS A RESULT OF LEARNING THE DISCIPLINE (MODULE) | |
|---|---|
| **PC-15: Capable and ready to implement preventive measures to prevent infectious, parasitic and non-infectious diseases, monitor their effectiveness, promote a healthy lifestyle and educate the population on sanitary and hygienic issues.** | |
| **Know:** | |
| Level 1 | administering principles in the field of public health and operational guidelines in the sphere of health care; - governance policy in the field of public health, medical settings and their functional units. |
| **Be able to:** | |
| Level 1 | apply basic principles of organization and management in the field of public health; - apply governance policy in medical settings and their functional units. |

| Own: | |
|---|---|
| Level 1 | basic principles of organization and management in the field of public health in medical settings and their functional units. |

| PC-10: Capable and ready to provide first aid in case of emergency and life-threatening conditions in adults and children at the pre-hospital stage, and refer for hospitalization on a planned and emergency basis. | |
|---|---|
| **Know:** | |
| Level 1 | physiological changes in the gravida body; methods of determining gestational and childbearing age, course of physiological pregnancy and delivery; - basic signs of pathological states across pregnancy and childbirth; - the scheme of providing medical care in the sphere of obstetrics and gynecology. |
| **Be able to:** | |
| Level 1 | carry out a special obstetric examination to assess a woman's state; - analyze data of instrumental and laboratory methods of diagnosis; - work out a delivery plan and prognostication, make up a plan for prevention of complications under the supervision of a doctor. |
| **Own:** | |
| Level 1 | methods of history taking; - methods of organizing case monitoring of a gravida in an out-patient clinic, keeping a gravidogram, and a partogram in a maternity hospital; - experience in managing physiological pregnancy and delivery. |

| PC-7: Able and willing to conduct and interpret interviews, physical examinations, clinical examinations, results of modern laboratory and instrumental studies, and fill out medical records for outpatients and inpatients. | |
|---|---|
| **Know:** | |
| Level 1 | etiology, pathogenesis, clinical picture; - basic types and methods of treating patients with various clinical entities; - focal areas and issues in managing patients with various diseases. |
| **Be able to:** | |
| Level 1 | unpack estimating of surveillance of patients with various clinical entities; - make a comparison of different types and methods of treating patients with various clinical entities, work out treatment planning of diseases; - make a note of practical utility of individual surveillance of patients with various clinical entities. |
| **Own:** | |
| Level 1 | experience in exposing and analyzing etiology and pathogenesis of various clinical diseases for establishing diagnosis; - maneuvers of searching and comparing different treatment modalities of patients with various clinical entities; - have skills in determining surveillance of patients with various clinical entities. |

**As a result of mastering the discipline, the student must**

| **3.1** | **Know:** |
|---|---|
| 3.1.1 | Definition of the disease, etiology, risk factors (RF), pathogenesis, pathomorphology, classification, clinical picture, laboratory and instrumental diagnostics, treatment principles, primary and secondary prevention, prognosis for the most common types of internal organ diseases, their characteristics and complications |
| 3.1.2 | Respiratory diseases: chronic obstructive bronchitis in young and elderly people , atypical pneumonia, variants of bronchial asthma, differences from occupational asthma; primary and secondary forms of pulmonary arterial hypertension (PAH); |
| 3.1.3 | Diseases of the circulatory system: cardiomyopathy, myocardial dystrophy; arrhythmias caused by excitability and conduction disorders, pericarditis; |
| 3.1.4 | Connective tissue diseases: systemic scleroderma, dermatomyositis, systemic vasculitis; |
| 3.1.5 | Diseases of the gastrointestinal tract (GIT): variants of chronic hepatitis and hepatosis, special forms of liver cirrhosis, complications of peptic ulcer disease, functional and autoimmune bowel diseases; |
| 3.1.6 | Diseases of the urinary system: amyloidosis, nephrotic syndrome and renal failure: acute and chronic forms. |
| 3.1.7 | Providing assistance in emergency conditions: paroxysmal atrial fibrillation, supraventricular and ventricular tachycardia, MES syndrome; |
| 3.1.8 | Acute renal failure. |
| 3.1.9 | In the 11th and 12th semesters, the student must know the differential diagnosis and differentiated therapy of the most complex diseases in internal medicine: |
| 3.1.10 | Respiratory diseases: differential diagnosis of infiltrates, broncho-obstructive syndrome, pneumonia and pulmonary heart disease. |
| 3.1.11 | Cardiovascular diseases: differential diagnosis of cardialgia, ACS, rhythm and conduction disorders, acute heart failure and chronic heart failure, cardiomegaly. |

| | |
|---|---|
| 3.1.12 | Connective tissue diseases: differential diagnosis of systolic and diastolic murmurs, joint syndrome, diffuse connective tissue diseases: systemic lupus erythematosus, systemic scleroderma, dermatomyositis. |
| 3.1.13 | Differential diagnosis of kidney diseases: diseases accompanied by proteinuria, leukocyturia, hematuria, differential diagnosis of nephrotic syndrome, acute kidney injury and chronic kidney disease. |
| 3.1.14 | Differential diagnosis of endocrine system diseases: hyperglycemia and hypoglycemia, thyroid diseases. |
| 3.1.15 | Differential diagnosis of blood diseases: differential diagnosis of anemia, hemoblastosis, hemorrhagic diathesis. |
| **3.2** | **Be able to:** |
| 3.2.1 | Recognize and correctly diagnose variants of common diseases of internal organs, the characteristics of the course of rare forms and their complications. |
| 3.2.2 | Assess the activity of the pathological process, its form, stage and phase of progression in accordance with officially approved classifications, the presence and severity of complications. |
| 3.2.3 | Draw up a plan for laboratory and instrumental examination to confirm the suspected diagnosis, conduct a differential diagnosis and interpret the results obtained. |
| 3.2.4 | Formulate a detailed clinical diagnosis, guided by the modern classification of diseases; |
| 3.2.5 | To detail the diagnosis of a specific patient, namely, the etiology, mechanism of development and pathomorphology of the disease, the characteristics of the clinical course and identify complications. |
| 3.2.6 | To substantiate the underlying disease clinical diagnosis in a specific patient by assessing the examination results and identifying diagnostic criteria for this disease or complication. |
| 3.2.7 | To substantiate the etiology of the disease or complication in the patient. |
| 3.2.8 | Prescribe adequate individual therapy by completing the “Prescription Sheet” and “Temperature Sheet” for the supervised patient. |
| 3.2.9 | To formulate a plan for drug and non-drug treatment of the patient in accordance with the diagnosis and morphological changes, including determining the indications and therapeutic contraindications for surgical intervention and its urgency. |
| 3.2.10 | To determine the prognosis of the disease for life and work capacity in a specific patient. |
| 3.2.11 | Determine measures of primary and secondary prevention; the latter (including) for the supervised patient. |
| 3.2.12 | Recognize the clinical manifestations of certain emergency conditions, conduct a detailed assessment of the condition, perform emergency diagnostics, and possess the skills to provide emergency medical care, including diagnosing and providing emergency care to children and adults at the pre-hospital and hospital stages. |
| 3.2.13 | To solve deontological problems related to the diagnosis, treatment and prevention of internal and endocrine diseases. |
| 3.2.14 | Decipher ECG in case of pathology, including arrhythmia. |
| 3.2.15 | Use educational, scientific, popular science literature, and the Internet for future professional activities |
| **3.3** | **Own:** |
| 3.3.1 | Methods for collecting complaints and patient history. |
| 3.3.2 | Methods of propaedeutics of various body systems: examination, palpation, percussion and auscultation of internal organs using general clinical methods, as well as special examination (measuring height and weight, calculating body mass index (BMI), determining the size of the thyroid gland, examining the mammary glands and studying secondary sexual characteristics) of a patient with endocrine pathology. |
| 3.3.3 | Skills in interpreting anamnesis data, objective examination of the patient, and laboratory and instrumental data. |
| 3.3.4 | Skills in expressing an independent point of view, analysis and logical thinking, public speaking, ethical argumentation, conducting discussions and round tables, principles of medical deontology and medical ethics. |
| 3.3.5 | Proper maintenance of medical records. |
| 3.3.6 | Skills for informing patients and their relatives. |
| 3.3.7 | Skills in a foreign language sufficient for communication and obtaining information from foreign sources. |

**4. STRUCTURE AND CONTENT OF THE DISCIPLINE (MODULE)**

| Lesson code | Name of sections and topics /type of lesson/ | Semester / Course | Hours | Competent-tions | Literature | Inte ract. | Pr. prep. | Note |
|---|---|---|---|---|---|---|---|---|
| | **Section 1. Pulmonology** | | | | | | | |
| 1.1 | Pleurisy /Lek/ | 7 | 2 | | L1.1 L1.3 | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 1.2 | Primary and secondary pulmonary arterial hypertension. | 7 | 4 | | L1.1 L1.3 | | | |
| 1.3 | COPD, step therapy of asthma /Pr/ | 7 | 4 | | | | | |
| 1.4 | Pleurisy. Atypical pneumonia /Pr/ | 7 | 4 | | | 1 | | |
| 1.5 | Primary and secondary PAH. CHLS KR No. 1 /Pr/ | 7 | 4 | | | | | |
| 1.6 | Variants of bronchial asthma, Features of treatment in depending on the degree gravity<br>Smoking – status assessment smoker. Diseases, caused by smoking.<br>Methodology of implementation pleural puncture.<br>Primary and secondary pulmonary hypertension.<br>High-altitude medicine.<br>High-mountain pulmonary hypertension<br>/Wed/ | 7 | 20 | | | | | |
| 1.7 | Pulmonary infiltrate, definition, etiology, diagnostic criteria, differential diagnosis, principles of treatment.<br>Differential diagnosis bronchial obstruction.<br>Pulmonary insufficiency.<br>Pulmonary heart syndrome.<br>/Lek/ | 9 | 8 | | | | | |
| 1.8 | Differential diagnosis pneumonia.<br>Pulmonary infiltrate, definition, etiology, diagnostic criteria, differential diagnosis.<br>Differential diagnosis bronchial obstruction and suffocation(I).<br>Differentiated therapy pneumonia and obstructive syndrome<br>Pulmonary insufficiency.<br>Pulmonary heart syndrome.<br>Emergency conditions in Pulmonology. CR No. 1.<br>/Pr/ | 9 | 20 | | | 2 | | |
| 1.9 | Treatment of bronchial asthma mountain climate<br>Patient education self-control during obstructive diseases<br>Tobacco addiction<br>The role of basic drugs in treatment of obstructive syndrome<br>High-altitude medicine<br>/Wed/ | 9 | 2 | | | | | |
| | **Section 2. Cardiology** | | | | | | | |
| 2.1 | Cardiomyopathy /Lek/ | 7 | 4 | | | | | |
| 2.2 | Pericarditis /Lek/ | 7 | 2 | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 2.3 | disorders<br>. Arrhythmias /Lek/ | 7 | 2 | | | | | |
| 2.4 | Conduction disturbances.<br>Blockades. Treatment of<br>emergency | 7 | 2 | | | | | |
| 2.5 | Cardiomyopathy /Pr/ | 7 | 2 | | | | | |
| 2.6 | Restrictive cardiomyopathy<br>Pericarditis.<br>Pericardiocentesis.<br>Arrhythmias caused by<br>disturbance of excitability and<br>conductivity. Emergency<br>arrhythmia: paroxysmal atrial<br>fibrillation<br>atrial, supra-, ventricular<br>tachycardia, MES syndrome<br>Heart blocks. Indications and<br>Contraindications to ECS.<br>Indications and contraindications<br>to RFA.<br>/Wed/ | 7 | 21.7 | | | | | |
| 2.7 | Pericarditis /Pr/ | 7 | 4 | | | | | |
| 2.8 | Disturbances of excitability<br>(arrhythmia) /Pr/ | 7 | 4 | | | | | |
| 2.9 | Conduction disturbances<br>(blockades). /Pr/ | 7 | 4 | | | | | |
| 2.10 | Treatment of emergency<br>arrhythmias. /Pr/ | 7 | 6 | | | 2 | | |
| 2.11 | Differential diagnosis<br>cardialgia<br>Differential diagnosis and<br>differentiated therapy<br>acute coronary syndrome<br>Differential diagnosis<br>arterial hypertension and<br>hypotonic conditions<br>Differential diagnosis and<br>differentiated therapy<br>arrhythmias caused by<br>disturbance of excitability.<br>Differential diagnosis and<br>differentiated therapy<br>conduction disturbances<br>/Lek/ | 9 | 8 | | | | | |
| 2.12 | Differential diagnosis<br>cardialgia<br>Differential diagnosis and<br>differentiated therapy<br>acute coronary syndrome<br>(AND)<br>Differential diagnosis<br>arterial hypertension. CR<br>No. 2<br>Differential diagnosis<br>arrhythmias caused by<br>disturbance of excitability and<br>conductivity<br>Differentiated therapy<br>arrhythmias<br>Differential diagnosis and<br>cardiac therapy<br>insufficiency. CR No. 3<br>/Pr/ | 9 | 12 | | | 2 | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 2.13 | Hypertensive crises, diagnostic criteria. Urgent Care. Cardiac asthma and pulmonary edema, diagnostics and emergency help Paroxysmal disorders rhythm Ventricular fibrillation and asystole, causes, criteria diagnostics. Emergency help. High-grade blockades, MES syndrome /Wed/ | 9 | 9.7 | | | | | |
| 2.14 | Credit /KrTO/ | 7 | 0.3 | | | | | |
| 2.15 | Credit /KrTO/ | 9 | 0.3 | | | | | |
| | **Section 3. Rheumatology** | | | | | | | |
| 3.1 | Scleroderma. Dermatomyositis /Lek/ | 8 | 4 | | | | | |
| 3.2 | Systemic vasculitis /Lek/ | 8 | 4 | | L1.2 L1.4 | | | |
| 3.3 | Scleroderma. Dermatomyositis /Pr/ | 8 | 4 | | | | | |
| 3.4 | Systemic vasculitis /Pr/ | 8 | 4 | | | | | |
| 3.5 | Systemic scleroderma, dermatomyositis Systemic and hemorrhagic vasculitis Periarteritis nodosa - Clinical "masks". Reactive arthritis in urology, gastroenterology. Spondyloarthritis Indications and contraindications hormonal therapy for DZST Indications for intra-articular injection hormones /Wed/ | 8 | 22.7 | | | | | |
| 3.6 | Differential diagnosis systolic heart murmurs Differential diagnosis diastolic murmurs Differential diagnosis cardiomegaly Differential diagnostics articular syndrome Differential diagnosis febrile conditions /Lek/ | 10 | 10 | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 3.7 | Differential diagnosis systolic murmurs (SMR) Differential diagnosis diastolic murmurs (I) Differential diagnosis cardiomegaly Differential diagnosis rheumatic and non-rheumatic lesions myocardial KR No. 4 Differential diagnosis and therapy of articular syndrome Differential diagnosis diffuse diseases connective tissue Differential diagnosis febrile conditions Immunosuppressive therapy in internal medicine clinic. KR No. 5 /Pr/ | 10 | 12 | | | 1 | | |
| 3.8 | Systemic scleroderma, dermatomyositis Systemic and hemorrhagic vasculitis Periarteritis nodosa - Clinical "masks". /Wed/ | 10 | 6 | | | | | |
| | **Section 4. Gastroenterology** | | | | | | | |
| 4.1 | Variants of the course of chronic hepatitis, hepatosis, cirrhosis (I) /Pr/ | 8 | 4 | | | 3 | | |
| 4.2 | Crohn's disease. Ulcerative colitis. | 8 | 4 | | | | | |
| 4.3 | Variants of the course of chronic diseases hepatitis, cirrhosis, hepatosis Functional and rare intestinal diseases /Wed/ | 8 | 7 | | | | | |
| 4.4 | Ulcerative lesions of the gastrointestinal tract in Kyrgyzstan Emergency conditions in gastroenterology: Gastrointestinal bleeding, "acute abdomen" hepatic encephalopathy. Damage to internal organs with visceral syphilis. /Wed/ | 8 | 6 | | | | | |
| 4.5 | Differential diagnosis and gastric and intestinal therapy dyspepsia Differential diagnosis jaundice. Differential diagnosis and hepatomegaly therapy /Lek/ | 10 | 2 | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 4.6 | Differential diagnosis and differentiated therapy gastric dyspepsia Differential diagnosis and differential therapy intestinal dyspepsia Differential diagnosis jaundice with conjugated hyperbilirubinemia Differential diagnosis jaundice with unconjugated hyperbilirubinemia Differential diagnosis and hepatomegaly therapy Differential diagnosis and therapy of gallbladder diseases bladder and pancreas glands. CR No. 6 /Pr/ | 10 | 6 | | | | | |
| 4.7 | Ulcerative lesions of the gastrointestinal tract in Kyrgyzstan Emergency conditions in gastroenterology: Gastrointestinal bleeding, "acute abdomen" hepatic encephalopathy. Damage to internal organs with visceral syphilis. /Wed/ | 10 | 8 | | | | | |
| 4.8 | Variants of the course of chronic hepatitis, hepatosis, cirrhosis /Lek/ | 8 | 2 | | | | | |
| 4.9 | Crohn's disease. Ulcerative colitis. IBS /Lek/ | 8 | 2 | | | | | |
| | **Section 5. Nephrology** | | | | | | | |
| 5.1 | Renal amyloidosis. Nephrotic syndrome /Pr/ | 8 | 4 | | | | | |
| 5.2 | OPP. CKD. /Pr/ | 8 | 4 | | | | | |
| 5.3 | Pathogenesis of the main clinical manifestations nephrotic syndrome (proteinuria, edema, hypercholesterolemia) Rare forms of amyloidosis Nephrotic crisis Renal failure /Wed/ | 8 | 6 | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 5.4 | Differential diagnosis urinary syndrome, flowing with predominantly hematuria, leukocyturia. Differential diagnosis urinary syndrome, flowing with preferential proteinuria Differential diagnostics nephrotic syndrome Differential diagnosis oliguria /Lek/ | 10 | 2 | | | | | |
| 5.5 | Differential diagnosis in case of illnesses flowing, predominantly with hematuria Differential diagnosis in case of illnesses flowing, mainly with proteinuria Differential diagnosis in case of illnesses flowing, mainly with leukocyturia Differential diagnosis and therapy for glomerulonephritis Differential diagnosis and nephrotic therapy syndrome Differential diagnosis secondary nephritis Differential diagnosis and kidney treatment insufficiency(I) /Pr/ | 10 | 4 | | | 1 | | |
| 5.6 | Features of the flow glomerulonephritis in the mountains conditions. Emergency conditions in nephrology: renal colic, eclampsia, nephrotic crisis, septic shock, acute renal failure Cardiorenal continuum /Ved/ | 10 | 12 | | | | | |
| 5.7 | Renal amyloidosis. Nephrotic syndrome /Lek/ | 8 | 2 | | | | | |
| 5.8 | OPP. CKD. /Lek/ | 8 | 2 | | | | | |
| | **Section 6. Endocrinology** | | | | | | | |
| 6.1 | Metabolic syndrome. Differential diagnostics of diseases thyroid gland /Lek/ | 10 | 2 | | | | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 6.2 | Differential diagnosis and therapy of diseases thyroid gland Differential diagnosis hyperglycemia Differential therapy diabetes mellitus Differential diagnosis obesity. Defeat internal organs. /Pr/ | 10 | 4 | | | 1 | | |
| 6.3 | Components of met syndrome as pre-CVD Macroangiopathy in diabetes diabetes Iodine deficiency syndrome in Kyrgyzstan Emergency conditions in endocrinology /Wed/ | 10 | 5.7 | | | | | |
| | **Section 7. Hematology** | | | | | | | |
| 7.1 | Acute and chronic leukemia /Pr/ | 8 | 4 | | | | | |
| 7.2 | Multiple myeloma. DIC syndrome. /Pr/ | 8 | 4 | | | | | |
| 7.3 | Differential diagnosis and treatment of anemia Differential diagnosis and therapy for hemablastosis /Pr/ | 10 | 6 | | | 1 | | |
| 7.4 | Differential diagnosis of erythremia Differential diagnosis hemorrhagic diathesis DIC syndrome Features of the flow internal diseases in elderly age /Wed/ | 10 | 10 | | | | | |
| 7.5 | Credit /KrTO/ | 10 | 0.3 | | | | | |
| 7.6 | Credit /KrTO/ | 8 | 0.3 | | | | | |

## 5. ASSESSMENT TOOLS FUND

### 5.1. Test questions and tasks

Hospital Therapy (Interim Certification)
Questions to check your "KNOW" level of learning:
Current monitoring is carried out in the form of: oral questioning, practical skills (patient supervision), diagnostic surveys, attendance, reports (papers, presentations). Midterm assessment (module) is carried out in the form of 5 tasks: 2 theoretical questions, problem, analysis, ECG.
TEST QUESTIONS (9-10 semesters)
KR No. 1. Pulmonology:
1. Diagnostic criteria for atypical pneumonia; pneumonia caused by staphylococcus, streptococcus H. influence, viruses, nosocomial pneumonia and pneumonia in elderly and weakened patients.
2. List the radiological signs of atypical pneumonia.
3. Types of bronchial asthma, treatment features depending on the severity
4. Features of COPD in young, elderly, and old age
5. Pleurisy: diagnostic criteria for dry and exudative pleurisy
6. Pulmonary hypertension: primary and secondary PAH
KR No. 2 CARDIOLOGY
1. Define cardiomyopathy.
2. List the diagnostic criteria for various types of cardiomyopathy.
3. List the main mechanisms of hemodynamic disturbances in cardiomyopathies.
4. Tactics of examination and treatment for various types of cardiomyopathy.

5. Provide the definition, criteria for diagnosis and treatment of myocardial dystrophy.
6. Pericarditis: diagnostic criteria for dry, exudative and adhesive pericarditis.
7.What is the "Armored Heart"?
8. Features of heart failure in pericarditis.
9.What is "pseudocirrhosis" of the liver?
10. Instrumental diagnostics of pericarditis.
11. Indications for pericardial puncture.
12. Complications of exudative pericarditis, adhesive (constrictive) pericarditis.
13. Principles of treatment of pericarditis depending on the etiology, pathogenetic mechanisms of development and prognosis in pericarditis.
14. Etiology and pathogenesis of extrasystolic arrhythmias.
15. ECG – diagnosis of extrasystolic arrhythmias. Treatment of extrasystolic arrhythmias
16.ECG – criteria for supraventricular extrasystolic arrhythmia.
17. Diagnostic criteria for ventricular extrasystole.
18. Classes of ventricular extrasystole according to Lown.
19. Features of treatment of ventricular extrasystole.
20. Definition, pathogenesis of paroxysmal tachycardia.
21. Clinical and ECG criteria for supraventricular and ventricular forms of paroxysmal tachycardia.
22.Treatment of paroxysmal tachycardia.
23. Classification of bundle branch blocks.
24. Features of antiarrhythmic pharmacotherapy of paroxysmal forms of cardiac rhythm disorders.
25. Complications of antiarrhythmic therapy.

CR No. 3 RHEUMATOLOGY, GASTROENTEROLOGY

1. List the variants of systemic scleroderma and dermatomyositis.
2. Features of the treatment of systemic scleroderma and dermatomyositis depending on the course of the disease.
3. Diagnostic criteria for systemic vasculitis - periarteritis nodosa, Takayasu's disease, Horton, Wegener's syndrome, Goodpasture.
4. Treatment of systemic vasculitis.
5. List the forms and variants of hemorrhagic vasculitis (HV)
6.Treatment of hepatitis B depending on the course of the disease.
7. Diagnostic criteria and treatment of IBS, UC, Crohn's disease.
8. List the types of chronic viral hepatitis.
9. Treatment of chronic viral hepatitis depending on the phase of the disease and the type of virus.
10. Variants of liver cirrhosis, diagnostic criteria.
11. Complications of liver cirrhosis and their treatment.
12. Diagnostic criteria for hemochromatosis.
13. Diagnostic criteria for hepatolenticular degeneration.

KR No. 4 NEPHROLOGY, HEMATOLOGY

1. Etiology and modern concepts of pathogenesis of renal amyloidosis.
2. Stages of amyloidosis.
3. Diagnostic criteria and treatment of amyloidosis depending on the stages of the disease.
4. Treatment and prognosis for amyloidosis
5. Causes and pathogenesis of nephrotic syndrome. Clinical and laboratory (primary and secondary) criteria nephrotic syndrome.
6. Treatment and prognosis of nephrotic syndrome. The concept of nephrotic crisis.
7. Define acute kidney injury and chronic kidney disease. Etiology and pathogenesis.
8. Stages and forms of acute kidney injury and chronic kidney disease.
9. Clinical presentation of acute kidney injury and chronic kidney disease depending on the stage. Methods for assessing the functional state of the kidneys. Diagnostics and treatment.
10. Indications for hemodialysis in acute renal failure.
11. Prognosis for AKI and CKD.
12. Indications and contraindications for kidney transplantation.
13. Acute leukemia
14. Chronic myelogenous and lymphocytic leukemia, hemoblastoses
15. Myeloma disease.
16. DIC syndrome.

TEST QUESTIONS (11-12 semesters)

Questions for Module No. 1:

1. Differential diagnosis of pneumonia
2. Pulmonary infiltrate, definition, etiology, diagnostic criteria, differential diagnosis.
3. Differential diagnosis of bronchial obstruction
4. Differentiated therapy of pneumonia and obstructive syndrome
5. Pulmonary insufficiency. Cor pulmonale syndrome
6. Differential diagnosis of PE, diagnostic criteria and treatment.

Questions for Module No. 2

1. Differential diagnosis of cardialgia
2. Differential diagnosis and differentiated therapy of acute coronary syndrome
3. Differential diagnosis of arterial hypertension

4. Complications of hypertension, crises, differentiated therapy
Questions for Module No. 3:
1. Differential diagnosis of arrhythmias caused by impaired excitability.
2. Differential diagnosis of arrhythmias caused by conduction disturbances
3. Differentiated therapy of arrhythmias
4. Differential diagnosis of heart failure.
Questions for Module No. 4
1. Differential diagnosis of systolic heart murmurs.
2. Differential diagnosis of diastolic murmurs
3. Differential diagnosis of cardiomegaly
4. Differential diagnosis of rheumatic and non-rheumatic myocardial lesions
5. Differential diagnosis and treatment of joint syndrome
6. Differential diagnosis of spondyloarthritis
7. Differential diagnosis of diffuse connective tissue diseases
8. Differential diagnosis of RA with SLE
9. Differential diagnosis of RA with SSc
10. Differential diagnosis of RA with DM
11. Differential diagnosis of reactive arthritis
12. Differential diagnosis of Reiter's disease and syndrome
Questions for Module No. 5
1. Differential diagnosis of gastric dyspepsia
2. Differential diagnosis of intestinal dyspepsia
3. Differentiated therapy of dyspepsia
4. Differential diagnosis of jaundice with conjugated hyperbilirubinemia
5. Differential diagnosis of jaundice with unconjugated hyperbilirubinemia
6. Differential diagnosis and therapy of hepatomegaly
7. Differential diagnosis and treatment of diseases of the gallbladder and pancreas
8. Differential diagnosis and emergency measures for gastrointestinal bleeding
9. Differential diagnosis and emergency measures for acute abdomen syndrome
Questions for Module No. 6:
1. Differential diagnosis in diseases occurring mainly with hematuria
2. Differential diagnosis in diseases occurring predominantly with proteinuria
3. Differential diagnosis in diseases occurring predominantly with leukocyturia
4. Differential diagnosis and therapy of glomerulonephritis
5. Differential diagnosis and therapy of nephrotic syndrome
6. Differential diagnosis of secondary nephritis
7. Differential diagnosis and treatment of renal failure.
Questions for Module No. 7
1. Differential diagnosis and therapy of thyroid diseases
2. Differential diagnosis of hyperglycemia
3. Differential therapy of diabetes mellitus
4. Differential diagnosis of obesity. Internal organ damage.
5. Metabolic syndrome
Questions for Module No. 8
1. Differential diagnosis and treatment of anemia
2. Differential diagnosis and treatment of splenomegaly and lymphadenopathies
3. Differential diagnosis and therapy of hemoblastosis
Tasks to check the level of learning "KNOW HOW and CAN":
The supervised patient must:
1. Collect complaints, life history and illness from the patient.
2. Examine and evaluate the objective state of organs and systems.
3. Identify syndromes, make a preliminary diagnosis.
4. Interpret the results of clinical and additional research methods.
5. Make a clinical diagnosis of diseases of internal organs, reflecting the etiology, pathogenesis, and course.
6. Provide emergency medical care when urgent pathology of internal organs is detected in patients.
7. Carry out prevention of diseases of internal organs.
8.Tasks (Appendix No2)
HOSPITAL THERAPY EXAM QUESTIONS
General questions
1. Question about a specific nosological unit (programs of faculty therapy and hospital therapy of the 5th year).
2. Question from the 6th year hospital therapy program: differential diagnosis of the syndrome and differentiated therapy.
3. Question about emergency condition
4. Situational task
5. Practical skills in interpreting tests, results of instrumental examinations, and decoding ECG.
Pulmonology
1. Differential diagnosis of pneumonia.
2. Pulmonary infiltrate, definition, etiology, diagnostic criteria, differential diagnosis

3. Differential diagnosis of bronchial obstruction and suffocation
4. Differentiated therapy of pneumonia and obstructive syndrome
5. Pulmonary insufficiency. Cor pulmonale syndrome.
6.Emergency conditions in pulmonology.
Cardiology
7. Differential diagnosis of cardialgia
8. Differential diagnosis and differentiated therapy of acute coronary syndrome
9. Differential diagnosis of arterial hypertension
10. Differential diagnosis of arrhythmias caused by disturbances of excitability and conduction
11. Differentiated therapy of arrhythmias
12. Differential diagnosis and therapy of heart failure.
Rheumatology
13. Differential diagnosis of systolic murmurs
14. Differential diagnosis of diastolic murmurs
15. Differential diagnosis of cardiomegaly
16. Differential diagnosis of rheumatic and non-rheumatic myocardial lesions
17. Differential diagnosis and therapy of articular syndrome
18. Differential diagnosis of diffuse connective tissue diseases
19. Differential diagnosis of febrile conditions
20. Immunosuppressive therapy in the clinic of internal diseases.
Gastroenterology
21. Differential diagnosis and differentiated therapy of gastric dyspepsia
22. Differential diagnosis and differential therapy of intestinal dyspepsia
23. Differential diagnosis of jaundice with conjugated hyperbilirubinemia
24. Differential diagnosis of jaundice with unconjugated hyperbilirubinemia
25. Differential diagnosis and therapy of hepatomegaly
26. Differential diagnosis and therapy of diseases of the gallbladder and pancreas
Nephrology
27. Differential diagnosis in diseases occurring predominantly with hematuria
28. Differential diagnosis in diseases occurring predominantly with proteinuria
29. Differential diagnosis in diseases occurring predominantly with leukocyturia
30. Differential diagnosis and therapy of glomerulonephritis
31. Differential diagnosis and therapy of nephrotic syndrome
32. Differential diagnosis of secondary nephritis
33. Differential diagnosis and treatment of renal failure
Endocrinology
34. Differential diagnosis and therapy of thyroid diseases
35. Differential diagnosis of hyperglycemia
36. Differential therapy of diabetes mellitus
37. Differential diagnosis of obesity. Internal organ damage. Metabolic syndrome.
38.Emergency conditions in endocrinology
Hematology
39. Differential diagnosis and treatment of anemia
40. Differential diagnosis and therapy of hemoblastosis
41. Features of treatment of internal organ diseases in old age

**5.2. Topics of coursework (projects)**

not provided

**5.3. Assessment Fund**

Test (Appendix No. 1)
Situational tasks (Appendix No. 2)
Reports and abstracts 9-10 semesters:
1. Types of bronchial asthma, treatment features depending on the severity
2. High-altitude medicine. High-altitude pulmonary hypertension
3. Myocardial dystrophy - "athlete's heart"
4. Restrictive cardiomyopathy
5. Heart blocks, congenital syndromes: Wolff-Parkinson-White, Frederick, premature contraction
ventricles
6. Hemorrhagic vasculitis. Wegener's granulomatosis.
7. Hepatolenticular degeneration - Konovalov-Wilson disease: principles of therapy. Hemachromatosis
8. Functional bowel diseases
9. Pathogenesis of the main clinical manifestations of nephrotic syndrome (proteinuria, edema, hypercholesterolemia)
10. Nephrotic crisis
Reports and abstracts 11-12 semesters:
1.Treatment of bronchial asthma in the mountain climate
2. The role of basic drugs in the treatment of obstructive syndrome
3. Tobacco addiction
4. Morgagni-Adams-Stokes syndrome

5. Brugada syndrome
6. Reactive arthritis in urology and gastroenterology
7. Spondyloarthritis
8. Ulcerative lesions of the gastrointestinal tract in Kyrgyzstan
9. Damage to internal organs in visceral syphilis
10. Features of the course of glomerulonephritis in mountain conditions.
11. Components of met syndrome as a precursor to cardiovascular disease
12. Macroangiopathy in diabetes mellitus
13. Iodine deficiency syndrome in Kyrgyzstan
14. Differential diagnosis of erythremia
15. Differential diagnosis of hemorrhagic diathesis
16. DIC syndrome

Presentations 9-10 semesters:
1. Smoking – assessment of smoking status. Diseases caused by smoking
2. Methodology for performing pleural puncture
3. Pericarditis. Pericardial tamponade. Constrictive pericarditis.
4. Urgent arrhythmias: paroxysmal atrial fibrillation, supra-, ventricular tachycardia.
5. Periarteritis nodosa - Clinical "masks"
6. Acute renal failure
7. Rare forms of amyloidosis

Presentations for 11th-12th semesters:
1. Hemoptysis and bleeding in pulmonology
2. Thromboembolism of small branches of the pulmonary artery
3. Teaching patients self-control in obstructive diseases
4. Clinic of status asthmaticus, diagnosis and treatment
5. Clinical presentation and emergency care for unstable angina
6. Pre-hospital and hospital stages of care for acute myocardial infarction
7. Complicated hypertensive crisis (acute left ventricular failure)
8. Hypertensive crisis complicated by dissecting aortic aneurysm.
9. Uncomplicated hypertensive crisis and malignant hypertension.
10. Paroxysmal atrial fibrillation, causes, diagnosis and emergency therapy.
11. Cardiac asthma attack, causes, diagnosis and emergency treatment.
12. Paroxysmal ventricular tachycardia: diagnosis and emergency treatment
13.Treatment of bronchial asthma with mountain climate
14.Teaching patients self-control in obstructive diseases
15. Tobacco addiction
16. The role of basic drugs in the treatment of obstructive syndrome
17. High-altitude medicine
18. Hypertensive crises, diagnostic criteria. Emergency care.
19.Cardiac asthma and pulmonary edema, diagnosis and emergency care
20. Paroxysmal rhythm disturbances
21. Ventricular fibrillation and asystole: causes and diagnostic criteria. Emergency care.
22. High-grade blockades, MES syndrome
23. Reactive arthritis in urology and gastroenterology
24. Spondyloarthritis
25. Indications and contraindications for hormonal therapy for CTD
26. Indications for intra-articular administration of hormones
27. Ulcerative lesions of the gastrointestinal tract in Kyrgyzstan
28.Emergency conditions in gastroenterology:
29. Gastrointestinal bleeding, acute abdomen, hepatic encephalopathy.
30. Damage to internal organs in visceral syphilis.
31. Features of the course of glomerulonephritis in mountain conditions.
32. Emergencies in nephrology: renal colic, eclampsia, nephrotic crisis, septic shock, acute renal failure
33.Cardiorenal continuum
34. Components of met syndrome as a precursor to cardiovascular disease
35. Macroangiopathy in diabetes mellitus
36. Iodine deficiency syndrome in Kyrgyzstan
37. Differential diagnosis of erythremia
38. Differential diagnosis of hemorrhagic diathesis
39. DIC syndrome

Test
Practical skills, analysis (Appendix No. 3)
ECG (Appendix No. 4)
Types of control and certification, forms of assessment tools (Appendix No. 5)
Technological map of the discipline (Appendix No. 6)

**5.4. List of types of assessment tools**

For the 5th year hospital therapy course, there are 2 tests in each semester with written answers to 5 assignments:

1) Test questions on the topics – 2 questions (1-definition, etiology, classification, clinical picture of the disease, 2-diagnostics and treatment).
2) Solving a typical situational problem – practical control tasks (PCT) – it is necessary to complete the following
Algorithm of actions: make a preliminary diagnosis by assessing the conditions of the problem; make a decision on the sufficiency proposed examination results, decide on the need for additional examination to resolve
problematic situation; having described the expected results, evaluate the consequences of the decisions taken in the formulation clinical (final) diagnosis, prescribe adequate treatment.
3) Interpretation of the analysis, data from instrumental examinations, assuming: for what disease this analysis is
is mandatory or may be.
4) Decoding the ECG according to the protocol with writing a conclusion
At the final assessment of 9-10 semesters – pass.
For the course of hospital therapy of the 6th year (11-12 semesters) 9 modules (tests) (in the 11th semester 4 modules, in the 12th semester 5 modules) with written answers to 5 tasks:
1. Answer 3 questions in writing (differential diagnosis of diseases, differential therapy and emergency conditions).
2. A situational task on the topic of the program with answers to 3 questions:
1) diagnosis according to classification; 2) additional examinations with expected results; 3) treatment of the patient.
3. The interpretation of the analysis or instrumental examination data should contain 2 answers: 1) what is it called this change, for example, proteinuria; 2) what disease is this analysis characteristic for or in what disease
May be.
4. ECG decoding means the answers according to the protocol:
1) The rhythm is correct, incorrect
2) Rhythm: sinus, non-sinus
3) Position of the EOS
4) Heart rate
5) characteristics of intervals and teeth of the ventricular complex in the chest leads.
The knowledge assessment criteria for the 6th year are based on the BRS, which takes into account the student's annual academic performance,
activity, attendance, passing all CRs. There is also a final exam for the State Technical University for 5th-6th years, which includes a ticket with 2
oral questions, a situational task, and an ECG. The state exam consists of three stages: bedside supervision

## 6. EDUCATIONAL, METHODOLOGICAL AND INFORMATIONAL SUPPORT OF THE DISCIPLINE (MODULE)

### 6.1. Recommended literature

#### 6.1.1. Primary Literature

| | Authors, compilers | Title | Publisher, year |
|---|---|---|---|
| L1.1 | Sabirov I.S., Sarybaev A.Sh., Maripov A.M. | Differential Diagnosis of Infiltrative Pulmonary Diseases: A Tutorial | Bishkek: KRSU Publishing House 2009 |
| L1.2 | Dzhaylobaeva K.A., Abdulkadyrova Z.A., Sabirov I.S. | Differential Diagnosis and Treatment in Rheumatology: A Tutorial | Bishkek: KRSU Publishing House 2015 |
| L1.3 | Chuchalin A.G. | Clinical guidelines for pulmonology | 2007 |
| L1.4 | E.L. Nasonova | Rheumatology. National guidelines. | "GEOTAR-Media" 2008 |

### 6.3. List of information and educational technologies

#### 6.3.1 Competency-oriented educational technologies

| | |
|---|---|
| 6.3.1.1 | Traditional educational technologies – lectures, seminars, focused primarily on communication |
| 6.3.1.2 | knowledge and methods of action transmitted to students in a finished form and intended for reproduction |
| 6.3.1.3 | assimilation and analysis of specific examples. Lecture material is provided to students using |
| 6.3.1.4 | multimedia equipment and periodic presentation of thematic patients. Use |
| 6.3.1.5 | chambers, study rooms for students to work in. |
| 6.3.1.6 | Tables of models for various diseases of the respiratory system, cardiovascular, |
| 6.3.1.7 | digestive, urinary and musculoskeletal systems. |
| 6.3.1.8 | Multimedia system and computer |
| 6.3.1.9 | Discs, audio recordings of cardiac auscultation, radiography of respiratory organs for various diseases. |
| 6.3.1.10 | Offices in CIPO (Alamedin - 1) |
| 6.3.1.11 | Innovative educational technologies – develop systemic thinking and the ability to generate |
| 6.3.1.12 | ideas for solving various situational problems. These include situational problems, role-playing games, work in |

| | |
|---|---|
| 6.3.1.13 | small groups, scientific and practical conferences. |
| 6.3.1.14 | Information educational technologies – independent use of computer technology by students |
| 6.3.1.15 | technology and Internet resources for completing practical assignments and independent work. For better |
| 6.3.1.16 | After mastering the material and working independently, students prepare essays, reports, and presentations. |
| 6.3.1.17 | Access to computers (Alamedin 1, Leo Tolstoy Street) |
| **6.3.2 List of information reference systems and software** | |
| 6.3.2.1 | www.med.kg Website of the Ministry of Health of the Kyrgyz Republic |
| 6.3.2.2 | http://www.athero.ru "Website of the Atherosclerosis Center" |
| 6.3.2.3 | www.medmir.com REVIEWS OF WORLD MEDICAL JOURNALS IN RUSSIAN |
| 6.3.2.4 | www.escardio.org European Society of Cardiology ESC |
| 6.3.2.5 | www.lib.krsu.kg "Electronic Library" of KRSU |
| 6.3.2.6 | www.rmj.ru Russian Medical Journal |
| 6.3.2.7 | Internal Medicine |
| 6.3.2.8 | http://marc.rsmu.ru:8020/marcweb2/Default.asp Makolkin, V. I. Internal diseases |
| 6.3.2.9 | http://marc.rsmu.ru:8020/marcweb2/Default.aspInternal diseases: tests and situations. |
| 6.3.2.10 | http://marc.rsmu.ru:8020/marcweb2/Default.asp General medical practice |
| 6.3.2.11 | http://marc.rsmu.ru:8020/marcweb2/Default.asp Rheumatology |

| **7. LOGISTICS AND TECHNICAL SUPPORT OF THE DISCIPLINE (MODULE)** | |
|---|---|
| 7.1 | Computer and multimedia equipment; |
| 7.2 | Training software discs; |
| 7.3 | Electronic library |
| 7.4 | Website addresses of Russian publishers on internal medicine. |
| 7.5 | Audio lectures by Academician M.M. Mirrakhimov on specific topics of internal medicine |
| 7.6 | Traditional analog educational publications: reference lecture notes, teaching aids for studying |
| 7.7 | theoretical material. |
| 7.8 | The course is taught at the academic building on Leo Tolstoy Street, City Clinical Hospital of Emergency Medical Care No. 4. |
| 7.9 | There are 7 standard equipped classrooms (tables, chairs, hangers, boards), 85 seats. 2 |
| 7.10 | lecture halls for 70 people and for 50 people |

**8. METHODOLOGICAL INSTRUCTIONS FOR STUDENTS ON MASTERING THE DISCIPLINE (MODULE)**

The technological map of the discipline is in Appendix No. 6.
Methodological recommendations for studying the discipline.
Recommendations for using the materials of the educational and methodological complex.
The specificity of studying hospital therapy lies in the use of basic teaching and methodological techniques:
students' work in lectures, practical classes, and when studying individual topics, using visual aids
(posters, dummies, multimedia slides), followed by a demonstration of thematic patients, as well as analysis and
supervision of thematic patients.
Methodological recommendations for independent extracurricular work of students in studying the discipline:
The study of the theoretical part of the discipline is intended not only to deepen and consolidate the knowledge acquired in the classroom
classes, but also to promote the development of students' creative skills, initiative and organization of their free time
time.
The student's independent work in studying the discipline includes:
- reading recommended literature, internet sources and mastering the theoretical material of the discipline;
- preparation for various forms of control (survey, situational task, control work, test, ECG, analysis);
Students must plan the time required to study the discipline throughout the entire course.
semester, while providing for regular repetition of the material.
Working with educational literature is considered as a type of academic work in a discipline within the hours allocated for it.
Study (in the independent work section).
Each student is provided with access to the library collections of the University and the department.
Student work in a group develops a sense of collectivism and communication skills.

Teaching students helps them develop ethical and deontological skills for communicating with patients.
The initial level of students' knowledge is determined by the knowledge assessment, current monitoring of the acquisition of the discipline, and also
oral questioning during classes, during clinical discussions, and when solving typical situational problems.
SITUATIONAL PROBLEM
An example of implementation is in Appendix No. 2. Rating scales
REPORT
Preparing a report for class.
The main stages of preparing a report: choosing a topic; consulting a teacher; preparing a report plan; working with
sources and literature, collection of material; writing the text of the report; preparation of the manuscript and its submission
to the teacher before the start of the report, which determines the student's readiness to present; presentation of the report, responses to questions.
ABSTRACT
Recommendations for writing an abstract.
1. The topic of the essay is chosen in accordance with the interests of the student and must correspond to the given example
list. paragraph 5.3
2. The abstract should be based on the study of several sources additional to the main literature.
(monographs, articles).
3. The outline of the paper should be the author's own. It reflects the author's approach, opinion, and analysis of the problem.
4. All facts and borrowed ideas presented in the abstract must be accompanied by references to the source.
information.
5. It is unacceptable to simply assemble an abstract from pieces of borrowed text. All quotations must be presented in
quotation marks with the source and page number indicated in parentheses. The absence of quotation marks and references constitutes plagiarism and, according to
established scientific ethics, is considered a gross violation of copyright.
6. The abstract is prepared in the form of text on standard format sheets (A4) in Times New Roman font, 14. It begins with
title page, which indicates the name of the university, academic discipline, topic of the paper, last name and initials
student, year, and geographic location of the university. Then follows a table of contents with section pages.
It is advisable to divide the text of the abstract into sections: chapters, subchapters and title them. The use of
abstract of quantitative data and illustrations (graphs, tables, diagrams, drawings).
7. The abstract concludes with the sections "Conclusion" and "List of References". The conclusion presents
main conclusions, clearly formulated in thesis form and usually numbered.
8. The list of references must be compiled in full compliance with the current standard (rules), including
a special arrangement of punctuation marks. In general, the most commonly used order in our country is
The bibliographic references are as follows:
Author I.O. Book title. Place of publication: Publisher, Year of publication. Total number of pages in the book.
Second I.O. Title of the article // Title of the journal. Year of publication. Volume __. No __. Pages from __ to ___.
Author I.O. Title of article / Title of collection. Place of publication: Publisher, Year of publication. Pages from __ to ___.
Approximate content of the work: Title: Volume: 13-15 pages.
PRESENTATION in Microsoft PowerPoint
A presentation provides an opportunity to clearly present innovative ideas, developments, and plans. Educational presentation
is the result of independent work of students, with the help of which they clearly demonstrate
materials for a public speech in front of an audience. A computer presentation is a file with the necessary
materials, which consists of a sequence of slides. Each slide contains a complete meaning
information, since it is not automatically carried over to the next slide, unlike in a text document. One of
The main program for creating presentations in world practice is the PowerPoint program from Microsoft.
Presentation structure:
It is possible to hold the active attention of listeners for no more than 15 minutes, and therefore, with an average calculation of time
viewing time – 1 minute per slide, the number of slides should not exceed 15. The first slide of the presentation should
contain the topic of the work, the last name, first name and patronymic of the performer, the number of the study group, as well as the last name, first name, patronymic,
The position and academic degree of the teacher. On the second slide, it is advisable to present the objective and summary
presentation. Subsequent slides should be divided into sections according to the points of the work plan. For the final
The slide displays the most important and essential content of the presentation.
Recommendations for designing presentations in Microsoft PowerPoint:
For visual perception, the text on presentation slides should be at least 18 pt, and for headings – at least 24 pt.
The presentation layout should be designed in a consistent color scheme. The background should not be too bright or colorful.
Text should be easy to read. The same elements on different slides should be the same color. Slide space
(screen) should be used to the maximum, for example by increasing the scale of the drawing. In addition,
opportunities need to occupy the top ¾ of the slide (screen) area, since the bottom of the screen is poorly
Viewed from the back rows. Each slide must contain a title. There is no period at the end of titles.
Headings should reflect the conclusion of the information presented on the slide. Headings should be formatted in capital letters.
Letters can only be used if they are short. No more than 5-6 lines should be placed on a slide, and no more than 5-7
words in a sentence. The text on the slides should be easy to read. When adding pictures, diagrams, charts, and screenshots
(screenshots) It is necessary to check the text of these elements for errors. Do not overload slides with animations.
effects - this distracts listeners from the semantic content of the slide. Use the same one to change slides.
animation effect.
Students learn the methods of examining a patient, practice practical skills in a group, and work with patients in
inpatient treatment under the guidance of a teacher.
For the work it is recommended to use methodological recommendations for practical classes, posters,

tables, methodological developments of the department - PATIENT EXAMINATION SCHEME.
The final stage of work is the supervision of the patient.
BORDER CONTROL is carried out using a written survey, solving situational problems, ECG or analysis.

**TEST TASKS ON HOSPITAL THERAPY 9-10 semesters**

**1. IN WILSON-KONOVALOV DISEASE THE FOLLOWING ARE AFFECTED**

A) liver and brain B)
heart and kidneys C)
kidneys and lungs D)
liver and kidneys

**2. THE MOST COMMON CAUSING AGENT OF BACTERIAL COMPLICATIONS IN COPD IS**

A) Haemophilus influenzae
B) Pneumococcus C)
Staphylococcus D)
Mycoplasma

**3. IRRITABLE BOWEL SYNDROME IS OBSERVED BY**

A) functional disorders B) organic
changes C) hereditary disorders
D) intestinal developmental anomalies

**4. A FACTOR PREDISPOSING TO THE FORMATION OF POST-INFECTIOUS IRRITABLE BOWEL SYNDROME IS**

A) previous intestinal infection B) milk
C) consumption of foods rich in fiber D)
dyslipidemia

**5. THE DIAGNOSIS OF IRRITABLE BOWEL SYNDROME IS EXCLUDED BY**

A) the presence of blood in the stool
B) stool more than 3 times a week
B) a feeling of incomplete bowel movement D)
stool less than 3 times a week

**6. PRIMARY CARDIOMYOPATHIES INCLUDE**

A) hypertrophic
B) alcoholic
B) metabolic
D) dyshormonal

**7. SYNCOPAL STATES, DIZZINESS, CORONARY INSUFFICIENCY AND DYSPNEA ARE MOST COMMONLY OCCURRING IN**

A) HCM with LV outflow tract obstruction B) Aortic
valve insufficiency
B) DCMP
D) post-infarction cardiosclerosis

**8. A CARDIOCARDIAL SPECIFIC MARKER OF MYOCARDIAL NECROSIS IS**

A) troponin I B)
myoglobin C)
LDH D) total
CPK

**9. INCREASE IN SERUM ALPHA-FETOPROTEIN IS MOST PRONUNCIATED IN**

A) hepatocellular cancer
B) colon carcinoma
B) pancreatic cancer

C) gallbladder carcinoma

**10. MOST FREQUENTLY USED FOR AUTOIMMUNE HEPATITIS**

A) prednisolone B)
cyclosporine C)
triamcinolone D)
lamivudine

**11. USED FOR THE TREATMENT OF PSEUDOMEMBRANOUS COLITIS**

A) metronidazole
B) cephalexin C)
acyclovir D)
omeprazole

**12. THE TERMINAL ILEUM IS NOT AFFECTED BY**

A) pseudomembranous colitis
B) infection caused by Yersinia Enterocolitica
B) Crohn's disease
D) tuberculosis

**13. ULCERAL COLITIS IS CHARACTERISTIC**

A) the presence of frequent bleeding
B) relapse-free course
B) segmental lesion
D) the appearance of transmural ulcers

**14. THE PRESENCE OF A TRIAD OF SYMPTOMS - PERSISTENT INCREASE IN GASTRIC SECRETION, GASTROINTESTINAL ULCERATION, DIARRHEA - INDICATES**

A) Zollinger-Ellison syndrome
B) peptic ulcer localized in the stomach; C)
ulcerative colitis; D) chronic pancreatitis.

**15. VENTRICULAR TACHYCARDIA OF THE "PIROUETTE" TYPE CAN BE PROVOKED BY**

A) sotalol B)
verapamil C)
atenolol D)
diltiazem

**16. HAS A PHOTOSENSITIZING EFFECT**

A) amiodarone
B) disopyramide
B) sulpiride
D) metformin

**17. ANTITUMOR DRUG HAS A CARDIOTOXIC EFFECT UP TO THE DEVELOPMENT OF SECONDARY DILATED CARDIOMYOPATHY**

A) doxorubicin B)
dactinomycin C)
bleomycin D)
sarcolysin

**18. IN PATIENTS WITH OBSTRUCTIVE FORM OF HYPERTROPHIC CARDIOMYOPATHY, THEIR USE IS CONTRAINDICATED**

A) nitrates, dihydropyridines, ACE inhibitors

B) verapamil, diltiazem, atenolol
B) bisoprolol, disopyramide, amiodarone
D) spironolactone, propranolol, sotalol

**19. WITHDRAWAL SYNDROME MAY DEVELOP AFTER END OF USE**

A) glucocorticosteroids B)
bisphosphonates C)
trimetazidine D) ranolazine

**20. WHEN CONDUCTING RENAL REPLACEMENT THERAPY (HEMODIALYSIS, PERITONEAL DIALYSIS) IN PATIENTS WITH END-END RENAL DISEASE, THE PREFERRED ANTICOAGULANT IS**

A) heparin B)
warfarin
B) fondaparinkus D)
dabigatran

**21. FIRST-LINE ERYTHROPOIESIS-STIMULATING DRUGS ON A PROTEIN BASE ARE**

A) erythropoietins (alpha, beta, delta, omega) B)
prolyl hydroxylase inhibitors C) EPO-mimetics D)
transcriptase inhibitors

**22. FOR THE CORRECTION OF ANEMIA IN PATIENTS WITH CHRONIC KIDNEY DISEASE, THEY ARE USED**

A) erythropoiesis stimulants B)
leukopoiesis stimulants C)
nucleoside analogues D)
immunosuppressants

**23. IN CASE OF ANEMIA IN PATIENTS WITH CHRONIC KIDNEY DISEASE, IT IS NECESSARY TO PRESCRIPTION COMBINATION THERAPY: ERYTHROPOIESIS STIMULANTS WITH DRUGS**

A) iron B)
calcium C)
potassium D)
magnesium

**24. IF THE SCF DECREASES TO <30 Ml/min/1.73m2, HYPERKALIEMIA MAY BE CAUSED BY THE ADMINISTRATION OF**

A) spironolactone B)
dabigatran C)
febuxostat D)
ivabradine

**25. INDICATION FOR PRESCRIPTION OF SYSTEMIC AMINOGLYCOSIDES ARE**

A) complicated pyelonephritis
B) community-acquired pneumonia
B) prevention of infective endocarditis
D) Pneumocystis pneumonia

**26. SELECTION OF THE DOSE OF UNFRACTIONATED HEPARIN IS CARRIED OUT BY DETERMINING**

A) activated partial thromboplastin time B) international normalized ratio
B) soluble fibrin-monomer complexes with fibrinogen D) activated time of recalcification of fibrin protein

**27. THE ANTICOAGULATION EFFECT AND THE RISK OF HEMORRHAGIC COMPLICATIONS INCREASES WHEN ANTICOAGULANTS ARE COMBINED WITH**

A) non-steroidal anti-inflammatory drugs B) I1-imidazoline receptor agonists
B) B-lymphocyte CD20 receptor blockers
C) partial agonists of nicotinic receptors

**28. PATHOGENETIC TREATMENT NEPHROTIC SYNDROME ARE**

A) glucocorticosteroids, cytostatics, anticoagulants
B) diuretics, protein solutions, antikinin drugs
B) antihistamines, antibiotics, multivitamins
D) spironolactones, nitrovasodilators, calcium antagonists

**29. CLASS IA ANTIARRHYTHMIC MEMBRANE-STABILIZING DRUGS (WITH MODERATE SODIUM CHANNEL BLOCKADE) INCLUDE**

A) quinidine, novocainamide, disopyramide B) allapinin, propafenone, etacizin C) metoprolol, betaxolol, bisoprolol D) amiodarone, sotalol, dronedarone

**30. ANTIARRHYTHMIC MEMBRANE-STABILIZING DRUGS OF CLASS IC (WITH EXPRESSED BLOCKADE OF SODIUM CHANNELS) INCLUDE**

A) allapinin, propafenone, etacizin
B) quinidine, procainamide, disopyramide C) metoprolol, betaxolol, bisoprolol D) amiodarone, sotalol, dronedarone

**31. [T024681] CLASS II ANTIARRHYTHMIC DRUGS (BETA-ADRENIC BLOCKERS) ARE**

A) metoprolol, betaxolol, bisoprolol B) allapinin, propafenone, etacizin C) quinidine, novocainamide, disopyramide D) amiodarone, sotalol, dronedarone

**32. ANTIARRHYTHMIC DRUGS OF CLASS III (INCREASE THE DURATION OF THE POTENTIAL OF ACTION) RELATED**

A) amiodarone, sotalol, dronedarone
B) metoprolol, betaxalol, bisoprolol
B) allapinin, propafenone, etacizin
D) quinidine, procainamide, disopyramide

**33. THE DRUGS OF CHOICE FOR THE TREATMENT OF COMMUNITY-ACQUIRED PNEUMONIA CAUSED BY HAEMOPHILUS INFLUENZAE ARE**

A) aminopenicillins

B) oxazolidinones
B) tetracyclines
D) sulfonamides

**34. MONITORING THE EFFECTIVENESS AND SAFETY OF WARFARIN THERAPY IS CARRIED OUT WITH THE HELP OF**

A) international normalized ratio (INR)
B) activated partial thromboplastin time (APTT) C) activated recalcification time (ART)
D) soluble fibrin-monomer complexes (SFMC)

**35. WITH INTRAVENOUS ADMINISTRATION OF VERAPAMIL, ASYSTOLE MAY DEVELOP DURING THE PATIENT'S USE OF VERAPAMIL**

A) propranolol B) phenobarbital C) spironolactone D) febuxostat

**36. USE OF POTENTIALLY DANGEROUS COMBINATIONS OF DIGOXIN WITH**

A) amiodarone, quinidine, verapamil
B) atorvastatin, nifedipine, clopidogrel C) valsartan, fenofibrate, amlodipine D) cetirizine, omeprazole, denosumab

**37. FOR THE TREATMENT OF EDEMA SYNDROME IN STAGE 4 CHRONIC KIDNEY DISEASE (GLOMERULAR FILTRATION < 20 ML/MIN/1.73 M2), THE DIURETICS OF CHOICE ARE**

A) furosemide, torasemide
B) spironolactone, triamterene C) indapamide, chlorthalidone D) manninil, bumetanide

**38. IN PATIENTS WITH IMPAIRED RENAL FUNCTION, IT IS RECOMMENDED TO USE ANTIHISTAMINES FOR CONCOMITANT ALLERGIC DISEASES**

A) loratadine, hifenadine B) cetirizine, acrivastine
B) desloratadine, levocetirizine D) sequifenadine, fexofenadine

**39. SELECTION OF THE DAILY DOSE OF DABIGATRAN IS CARRIED OUT**

A) without monitoring coagulation parameters
B) under the control of the international normalized ratio C) under the control of all coagulogram indicators
D) under the control of activated partial thromboplastin time

**40. THE DRUG OF CHOICE FOR THE RESTRAINT OF ATRIAL FIBRILLATION PAROXYSM IN THE BACKGROUND OF ACUTE MYOCARDIAL INFARCTION IS**

A) amiodarone
B) procainamide C) lidocaine D) metoprolol

**41. IN THE CASE OF PERSISTENT PAIN SYNDROME AGAINST THE BACKGROUND OF ATRIAL FIBRILLATION PAROXYSM IN A PATIENT WITH ACUTE MYOCARDIAL INFARCTION, IT IS SHOWN**

A) electropulse therapy B) novocainamide infusion C) amiodarone infusion D) administration of narcotic analgesics

**42. IN THE EVENT OF A PAROXYSM OF SUSTAINED VENTRICULAR TACHYCARDIA AGAINST THE BACKGROUND OF MYOCARDIAL INFARCTION, IT IS SHOWN**

A) immediate EIT B) cordarone infusion C) lidocaine infusion D) beta-blockers

**43. PRECAUTIONARY PRESCRIPTION OF LOW MOLECULAR WEIGHT HEPARINS FOR THE TREATMENT OF ACUTE VENOUS THROMBOEMBOLISM (VTE) IS INDICATED FOR**

A) dabigatran B) apixaban C) aspirin
D) rivaroxaban

**44. DURATION OF USE OF APIXABAN AT A DOSE OF 10 MG TWICE A DAY FOR THE TREATMENT OF ACUTE VENOUS THROMBOEMBOLISM (VTE) IS _____DAYS**

A) 7
B) 14
B) 21
D) 28

**45. THE DURATION OF ANTICOAGULANT THERAPY AFTER THE FIRST EPISODE OF VENOUS THROMBOEMBOLISM (VTE) IS AT LEAST MONTHS**

A) 3
B) 6
C) 9
D) 12

**46. THROMBOLYTIC THERAPY FOR ACUTE VENOUS THROMBOEMBOLISM (VTE) IS INDICATED IN**

A) cardiogenic shock
B) recurrent pulmonary embolism (PE) C) bilateral PE D) iliofemoral thrombosis

**47. FUNICULATED MYELOSIS IS CHARACTERISTIC FOR**

A) B12-deficiency anemia
B) aplastic anemia
B) iron deficiency anemia
D) hemolytic anemia

**48. HEPATO- AND SPLENOMEGALIA IN ACUTE LEUKEMIA**

**ARE A MANIFESTATION _____OF THE SYNDROME**

A) hyperplastic
B) hemorrhagic
B) anemic
D) infectious-toxic

**49. HYPEREMIA OF THE SKIN AND MUCOUS MEMBRANES, HEPATOSPLENOMEGALY, CARDIOVASCULAR COMPLICATIONS ARE CHARACTERISTIC FOR**

A) polycythemia B)
acute leukemia
B) chronic leukemia D)
myelofibrosis

**50. MULTIPLE MYELOMA IS CHARACTERISTIC BY AN INCREASE IN TOTAL PROTEIN LEVEL DUE TO**

A) paraprotein
B) gamma globulin C)
albumin D) alpha
globulin

**51. MULTIPLE INJURIES, EXTENSIVE SURGICAL INTERVENTIONS, SEPTIC CONDITIONS, MALIGNANT TUMORS CAN CAUSE THE DEVELOPMENT**

A) DIC syndrome
B) hemorrhagic vasculitis C)
hemolytic anemia D) Rendu-Osler
disease

**52. IN CHRONIC RENAL FAILURE, TREATMENT OF ANEMIA INCLUDES THE PRESCRIPTION OF**

A) erythropoietin B)
prednisolone C)
vitamin B12
C) folic acid

**53. A FINAL DIAGNOSIS OF IRRITABLE BOWEL SYNDROME CAN BE MADE BASED ON A COMPLETE CLINICAL AND INSTRUMENTAL EXAMINATION AND**

A) exclusion of other diseases B)
histological confirmation
B) immunohistochemical confirmation D)
irrigoscopic confirmation

**54. IF THERE IS AN INCREASE IN BILIRUBIN, TYPICAL FOR GILBERT'S SYNDROME, IT IS NECESSARY TO EXCLUDE**

A) hemolytic anemia
B) infectious mononucleosis C)
acute viral hepatitis A
D) chronic alcohol intoxication

**55. THE CAUSE OF THROMBOSIS OF THE PORTAL VEIN AND ITS BRANCHES IS A DEFICIENCY**

A) proteins C and S
B) immunoglobulin G

B) vitamin K
D) alcohol dehydrogenase

**56. EXTRAINTESTINAL MANIFESTATIONS OF CROHN'S DISEASE INCLUDE**

A) erythema nodosum B)
interintestinal fistulas
B) pancreatogenic diabetes mellitus
D) generalized erosive psoriasis

**57. IN HEPATOCARCINOMA THE LEVEL OF BLOOD INCREASES**

A) alphafetoprotein B)
procalcitonin C) gamma
globulin D)
betaphytosterol

**58. IN AUTOIMMUNE HEPATITIS THE BLOOD CONTENT IS INCREASED**

A) gamma globulin and IgG
B) beta globulin and IgA C)
alpha2 globulin and IgM D)
alpha1 globulin and IgE

**59. IN WILSON'S DISEASE THE BLOOD CONTENT IS REDUCED**

A) ceruloplasmin B)
gamma globulin C)
alphafetoprotein
D) alpha1-antitrypsin

**60. TREATMENT OF MILD PSEUDOMEMBRANOUS COLITIS SHOULD BEGIN WITH METRONIDAZOLE**

A) inside
B) intravenously
B) orally and intravenously
D) in suppositories and in the form of rectal foam

**61. FOR THE TREATMENT OF SEVERE ALCOHOLIC HEPATITIS PREDNISOLONE IS PRESCRIBED AT A DOSE OF 40 MG/DAY**

A) orally
B) intravenously
B) intramuscularly
D) in microclysters

**62. AV CONDUCTION DISTURBANCES IN INFERIOR MYOCARDIAL INFARCTION ARE ASSOCIATED WITH**

A) disruption of blood flow through the artery of the AV node
B) impaired blood flow through the sinus node artery; C)
extensive damage to the lateral wall of the left ventricle; D)
damage to the interventricular septum.

**63. ACUTE ONSET LEFT BUNDLE BRANCH BLOCKADE IS MORE COMMON IN ALL, THE INFARCTION IS ACCOMPANIED BY LOCALIZATION**

A) front
B) lower
B) lateral
C) back

**64. ACUTELY DEVELOPED LEFT BUNDLE BRANCH BLOCKADE AGAINST MYOCARDIAL INFARCTION IS EQUIVALENT**

A) ST segment elevation on ECG
B) acute myocardial infarction without ST segment elevation on ECG;
C) formation of acute aneurysm of the apex of the left ventricle; D)
acute left ventricular failure.

**65. INDUCTION OF GROUP VENTRICULAR ECTOPIA IN A PATIENT AT PEAK EXERCISE IS**

A) diagnostic criterion for myocardial ischemia B)
indication for coronary angiography.
B) a questionable result of a test for coronary insufficiency; D) a criterion for
the diagnosis of subacute myocarditis.

**66. THE MAXIMUM DIAGNOSTIC ACCURACY OF THE NON-INVASIVE EXAMINATION METHODS FOR THE DIAGNOSIS OF ARRHYTHMOGENIC MYOCARDIAL DYSPLASIA IS POSSIBLE BY**

A) magnetic resonance imaging of the heart and genetic blood analysis
B) multispiral computed tomography of the heart with contrast and blood test for specific cardiac markers; C) ECG monitoring, stress test, and, if necessary, coronary angiography.
D) single-photon emission computed tomography of the heart at rest and under load and genetic blood analysis

**67. A VENTRICULAR RHYTHM IS CONSIDERED AS "SUSISTANT VENTRICULAR TACHYCARDIA" IF IT LASTS MORE THAN SECONDS.** _____

A) 30
B) 20
C) 90
D) 15

**68. RECOMMENDED ANTIARRHYTHMIC THERAPY TACTICS FOR GROUP VENTRICULAR ECTOPIA IN A PATIENT WITH POSTINFARCTION CARDIOSCLEROSIS IS THE APPLICATION**

A) sotalol - if there is a tendency to tachycardia
B) allapinin or propafenone in combination with sotalol
B) amiodarone, in combination with beta-blockers if there is a tendency to tachycardia; D)
verapamil

**69. INDICATIONS FOR IMPLANTATION OF A PERMANENT PACEMAKER ARE**

A) pauses longer than 3 seconds in the absence of
iatrogeny B) episodes of 2nd degree AV block at night
B) signs of early ventricular repolarization syndrome D) signs
of Brugada syndrome

**70. TRANSESOPHAGEAL ECHOCARDOG SHOULD BE PERFORMED FOR EXCLUSION OF INTRACARDIAC THROMBOSIS BY THE DURATION OF ATRIAL FIBRILLATION PAROXYSM**

A) more than 48 hours
B) more than 24 hours

B) less than 48 hours
D) less than 24 hours

**71. IN A PATIENT WITH AGENT HIGHNESS, WITH A DIFFERENCE IN BLOOD PRESSURE BETWEEN THE LEFT AND RIGHT ARMS OF 20 MILLION HGTS, FIRST OF ALL, YOU SHOULD SUSPECT**

A) Takayasu's disease
B) Cushing's disease
B) atherosclerotic lesion of the brachial artery D)
Addison's disease

**72. ECHOCARDIOGRAPHIC CRITERIA FOR CONCENTRIC HYPERTROPHY OF THE LEFT VENTRICLE ARE**

A) an increase in the left ventricular myocardial mass index and the relative thickness of the left ventricular walls B) an increase in the left ventricular myocardial mass index and the normal value of the relative thickness of the walls of the left ventricle
B) normal left ventricular myocardial mass index and increased relative left ventricular wall thickness D) normal left ventricular myocardial mass index and normal relative left ventricular wall thickness

**73. WIDE COMPLEX TACHYCARDIA WAS REGISTERED ON THE MONITOR SCREEN DURING THE EXERCISE TREADMILL TEST, SO THE STUDY MUST BE TERMINATED**

A) for any genesis of changes that are not clear B) due to
paroxysmal ventricular tachycardia
B) due to paroxysm of supraventricular tachycardia with aberration of intraventricular conduction; D) due to rate-dependent block of the left bundle branch of His.

**74. A pre-test ECG change that makes it impossible to perform an exercise treadmill test is**

A) complete left bundle branch block B)
complete right bundle branch block
B) initial (pretest) horizontal depression of the ST segment in leads II, III, aVF up to 1 mm D) initial (pretest) horizontal depression of the ST segment in leads V4-6 up to 1 mm

**75. IN CHRONIC KIDNEY DISEASE STAGE C3A CONTRAINDICATED**

A) glibenclamide
B) metformin
B) empagliflozin
D) sitagliptin

**76. IN PATIENTS WITH SICK SINUS SYNDROME, THEIR USE IS CONTRAINDICATED**

A) moxonidine B)
nifedipine C)
hydrolasine D)
felodipine

**77. IN THE TREATMENT OF HCM WITH LEFT VENTRICULAR OUTFLOW TRACT OBSTRUCTION, THE DRUGS OF CHOICE ARE**

A) β-blockers

B) ACE inhibitors
B) diuretics
D) angiotensin receptor blockers

**78. THE DRUGS OF CHOICE IN THE TREATMENT OF AGENT HYPERTENSION IN COMBINATION WITH CARDIAC RHYTHM DISORDERS ARE**

A) β-blockers B)
diuretics C) α-blockers
D) centrally acting drugs

**79. Pericardial fluid may appear as a result of therapy.**

A) cytostatics
B) antibacterial drugs C) antihypertensive drugs D) non-
steroidal anti-inflammatory drugs

**80. THE ANTITHROMBOTIC EFFECTIVENESS OF COUMARIN ANTICOAGULANTS IS OPTIMAL WHEN MAINTAINING INR WITHIN LIMITS**

A) 2.0 – 3.0
B) 1.0 – 2.0
C) 0 – 1.0 D)
5.0 – 6.0

**81. CONTROL OF THE ADEQUACY OF USE OF INDIRECT-ACTING ANTICOAGULANTS IS CARRIED OUT BY DEFINITION**

A) MNO
B) fibrinogen level
B) prothrombin index D) C-
reactive protein

**82. THE PRESENCE OF THE PHILADELPHIA CHROMOSOME IS PATHOGNOMONIC FOR**

A) chronic myelogenous leukemia
B) chronic hairy cell leukemia C) subleukemic
leukemia D) acute promyelocytic leukemia

**83. STERNAL PUNCTURE IS A MANDATORY DIAGNOSTIC PROCEDURE IN**

A) acute leukemia
B) chronic lymphocytic leukemia
C) von Willebrand disease D)
hemolytic anemia

**84. LEUKOPENIA CAN BE A CONSEQUENCE**

A) hypersplenism
B) transfusion of incompatible blood
B) abdominal trauma
D) chronic pyelonephritis

85. **SIGNS OF DIC SYNDROME INCLUDE** _____

A) hematoma-petechial
B) hematoma
B) petechial
D) vasculitic-purpuric

**86. THROMBOCYTOSIS CAN BE A CONSEQUENCE**
A) erythremia
B) acute leukemia
B) chronic lymphocytic leukemia D)
B12-deficiency anemia

**87. THROMBOCYTOPENIA CAN BE OBSERVED IN**
A) DIC syndrome
B) iron deficiency anemia C)
hemolytic anemia D) essential
thrombocythemia

**88. THROMBOCYTOSIS CAN BE A CONSEQUENCE**
A) essential thrombocythemia
B) acute leukemia
B) iron deficiency anemia
D) hemolytic anemia

**89. THROMBOCYTOPENIA CAN BE OBSERVED IN**
A) acute thrombocytopenic purpura B) iron
deficiency anemia C) hemolytic anemia D)
erythremia

**90. THROMBOCYTOPENIA CAN BE OBSERVED IN**
A) acute leukemia B)
erythremia
B) hemolytic anemia
D) essential thrombocythemia

**91. THROMBOCYTOSIS CAN BE OBSERVED IN**
A) amyloidosis
B) acute leukemia
B) the use of antiplatelet agents
D) the use of anticoagulants

**92. ANEMIA CAN BE OBSERVED WITH DEFICIENCY**
A) chronic renal B) acute liver
C) acute cardiac
D) chronic respiratory

**93. B-SYMPTOMS IN LYMPHOPROLIFERATIVE HEMOBLASTOSIS INCLUDE**
A) weight loss, weakness
B) lymphadenopathy C)
hypersplenism
D) anemia and thrombocytopenia

**94. LEUKOPENIA MAY BE A CONSEQUENCE OF USE**

A) cytostatics
B) hormonal contraceptives
B) colony-stimulating factor D)
erythropoietin

**95. ERYTHROPOIETIN PRESCRIPTION MAY CAUSE**

A) arterial hypertension
B) nausea and vomiting
B) febrile syndrome
D) thrombocytopenia

**96. FOR THE TREATMENT OF PATIENTS WITH MULTIPLE MYELOMA IS USED**

A) lenalidomide
B) interferon alpha C)
interferon beta
C) colony-stimulating factor

**97. FOR THE TREATMENT OF PATIENTS WITH MULTIPLE MYELOMA IS USED**

A) bortezamib B)
colchicine
B) interferon beta
C) colony-stimulating factor

**98. COMPLICATIONS OF THE USE OF CYTOSTATIC DRUGS IN THE TREATMENT OF HEMOBLASTOSIS INCLUDE**

A) agranulocytosis
B) thrombosis C)
skin rash D) runny
nose

**99. ERYTHROPOIETIN IS USED TO TREAT**

A) anemia in chronic kidney disease
B) anemia in acute renal failure
B) anemia, autoimmune hemolysis
D) leukopenia when exposed to cytostatics

**100. DIC SYNDROME TREATMENT SCHEMES INCLUDE**

A) plasmapheresis and fresh frozen plasma B)
antiplatelet agents and fibrinolysis activators C)
anticoagulants, antifibrinolytics D) anticoagulants
and fibrinolysis activators

**101. THE METHOD OF STOPPING BLEEDING IN ACUTE DIC SYNDROME IS**

A) transfusion of sufficient volumes of fresh frozen plasma B)
administration of at least 1 liter of warm donor blood C) plasmapheresis
in a volume of 1 liter of exfusion
D) prescription of prothrombin complex factor drugs

**102. IN CASE OF LONG-TERM COMPRESSION SYNDROME, THERAPY FOR DIC SYNDROME SHOULD BEGIN WITH**

A) performing plasmapheresis in a volume of 1 liter of exfusion B) transfusion of fresh donor blood C) administration of fibrinolytics
D) applying a tourniquet to the affected limb

**103. Drug-induced thrombocytopathy may be associated with the use of**

A) non-steroidal anti-inflammatory drugs B) broad-spectrum antibiotics C) antiviral drugs D) antihypertensive drugs

**104. WHEN USING INDIRECT ANTICOAGULANTS, IT IS NECESSARY TO CONTROL**

A) international normalized ratio B) prothrombin index according to Quick
B) antithrombin III level
D) activated partial thrombin time

**105. WHEN USING DIRECT ANTICOAGULANTS IN THERAPEUTIC DOSES, IT IS NECESSARY TO CONTROL**

A) activated partial thrombin time B) international normalized ratio C) prothrombin index according to Quick D) thrombin time

**106. WHEN USING DIRECT ANTICOAGULANTS IN PROPHYLACTIC DOSES, IT IS NECESSARY TO CONTROL**

A) the presence of hemorrhagic complications B) chronometric indicators of hemostasis C) the level of platelet aggregation
C) the level of fibrinolytic activity of the blood

**107. WITH THE USE OF PROPHYLACTIC DOSES OF LOW MOLECULAR WEIGHT HEPARINS, THE FUEL BLOOD MAY DEVELOP**

A) non-immune thrombocytopenia
B) drug-induced thrombocytopathy
B) heparin-associated agranulocytosis D) secondary thrombosis

**108. USED IN THE TREATMENT OF HEMOBLASTOSIS**

A) cytostatics and targeted biological drugs
B) anticoagulants and antiplatelet agents
B) antibiotics and anticoagulants
D) steroid hormones and antibiotics

**109. FOR THE TREATMENT OF CHRONIC MYELOYLEUKEMIA IS USED**

A) tyrosine kinase inhibitors and cytostatics B) cytostatics and steroid hormones C) steroid hormones and antibiotics
D) antibiotics and tyrosine kinase inhibitors

**110. VON WILLEBRAND DISEASE MANIFESTS ITSELF**

A) thrombocytopathy
B) thrombosis and hemorrhage

B) vasculitic-purpuric bleeding
D) thrombocytopenia

**111. STERNAL PUNCTURE**

A) is performed on an outpatient and inpatient basis B) is performed exclusively by a hematologist C) always requires local anesthesia D) always requires general anesthesia

**112. IN THE TREATMENT OF MULTIPLE MYELOMA, CARE SHOULD BE PROVIDED**

A) normal work and rest schedule
B) minimal level of physical activity C) aseptic conditions D) exclusion of work with physical activity

**113. WHEN TREATING PATIENTS WITH ACUTE LEUKEMIA, IT IS NECESSARY TO ENSURE**

A) aseptic conditions, transfusion assistance B) physical education classes in an increasing mode C) complete refusal of physical activity D) mandatory receipt of disability

**114. PATIENTS IN REMISSION FROM AUTOIMMUNE THROMBOCYTOPENIC PURPUREA SHOULD**

A) have a normal work and rest schedule
B) avoid physical activity and sports; C) avoid large crowds of people; D) eat hypoallergenic diets.

**115. PATIENTS IN REMISSION FROM ACUTE LEUKEMIA SHOULD**

A) have a normal work and rest schedule
B) exclude physical activity and sports
B) avoid large crowds of people
D) eat hypoallergenic diets

**116. PATIENTS WITH CHRONIC LYMPHOCYTIC LEUKEMIA SHOULD**

A) Avoid conditions with a high risk of respiratory infections B) Avoid physical activity and sports C) Go on disability D) Eat hypoallergenic diets

**117. IN REHABILITATION OF PATIENTS IN REMISSION FROM ACUTE LEUKEMIA**

A) no physical activity restrictions are required
B) restrictions on the length of the working day are required C) restrictions on the degree of mental workload are required
D) it is necessary to exclude the use of public transport

**118. WHEN TREATING PATIENTS WITH ACUTE LEUKEMIA, IT IS NECESSARY TO ENSURE**

A) transfusion care
B) maximum physical activity
B) strict bed rest; D) mandatory disability benefits.

**119. PREVENTION OF BLEEDING IN HEMOPHILIA**

**IS BEING CONDUCTED**

A) by regular administration of calculated doses of blood clotting factor preparations
B) by introducing the required amount of coagulation factor preparations at the very beginning bleeding
B) the use of preparations of activated seventh blood factor
D) daily administration of prothrombin complex preparations

**120. WHEN PERFORMING STERNAL PUNCTURE YOU SHOULD**

A) explain to the patient the procedure and its significance
B) give a sedative and maintain encouraging conversation during the procedure C) give a sedative and do not interfere with the procedure with conversations D) administer local anesthesia to the skin before the puncture

**121. AFTER COMPLETION OF STERNAL PUNCTURE YOU SHOULD**

A) Apply a sterile bandage to the puncture site B) Apply a pressure bandage to the puncture site C) Place an ice pack on the puncture site
D) leave the patient under the supervision of medical personnel

**122. THE MOST COMMON COMPLICATION OF CROHN'S DISEASE IS**

A) intestinal obstruction B) bleeding
B) increased risk of malignancy D) development of toxic megacolon

**123. LYMPHOCYTE COMPOSITION AND A MINOR NUMBER OF MESOTHELIAL CELLS IN PLEURAL EXUDATE ARE MOST CHARACTERISTIC OF**

A) tuberculosis B) pneumonia C) lymphocytic leukemia D) tumor

**124. THE MOST LIKELY CAUSATIVE AGENT IN AN OUTBREAK OF FOCAL PNEUMONIA IN A COLLECTIVE COMMUNICA IS**

A) mycoplasma
B) Escherichia coli C) Pneumococcus D) Proteus

**125. IN TUMOR METASTATIC EFFUSIONS, PLEURAL FLUID MORE OFTEN IS**

A) exudate B) transudate C) chylothorax D) hemothorax

**126. IN ACUTE TUBERCULOUS PLEURISIS, PLEURAL FLUID**

A) serous
B) hemorrhagic C) purulent D) chylous

**127. VERY RAPID REACCUMULATION OF FLUID IN THE PLEURAL CAVITY IS A TYPICAL SIGN**

A) mesothelioma (cancer) of the pleura
B) chronic heart failure C) pulmonary tuberculosis
D) systemic lupus erythematosus

**128. DIFFUSE PNEUMOSCLEROSIS CAN DEVELOP IN PATIENTS**

A) COPD
B) bronchiectasis
B) severe pneumonia
D) lung abscess

**129. THE MOST INFORMATIVE METHOD FOR DETECTING PNEUMOSCLEROSIS IS**

A) computed tomography B) physical examination C) radiography D) ultrasound

**130. NOSOCOMIAL PNEUMONIA DEVELOPS**

A) 48 hours after hospitalization
B) during the flu epidemic
B) in the presence of secondary immunodeficiency
D) as a result of aspiration injury

**131. Hemoptysis and Pulmonary Hemorrhage May Occur When**

A) lung abscess
B) bronchial asthma C) cystic fibrosis D) exudative pleurisy

**132. A PUNCTURE FOR PLEURAL PUNCTURE MUST BE CARRIED OUT**

A) along the upper edge of the rib B) along the lower edge of the rib
B) in the middle of the distance between the ribs D) between the ribs

**133. PERCUTORY PLEURAL EXUDATE IS DETERMINED BY ITS VOLUME NOT LESS THAN_____ML**

A) 500
B) 100
B) 50
D) 1000

**134. THE FORMATION OF DESTRUCTIVE CAVITIES IN THE LUNGS IS MOST CHARACTERISTIC OF PNEUMONIA CAUSED BY**

A) staphylococcus
B) pneumococcus C) chlamydia D) enterococcus

**135. HYDROTHORAX IS CHARACTERIZED BY ACCUMULATION IN THE PLEURAL CAVITY**

A) exudate B)
blood C) pus
D) lymph

**136. THE MAIN METHOD OF DIAGNOSIS OF RESPIRATORY FAILURE IS**

A) pulse oximetry B)
spirometry
B) computed tomography D)
radiography

**137. A RADIOLOGICAL SIGN OF A FORMING CAVITY IN THE LUNG IS**

A) annular darkening with clear outer and inner contours
B) an irregularly shaped clearing with an undefinable outer contour; C) annular darkening with uneven edges and thick walls; D) a clearing with a clear horizontal fluid level.

**138. THE NEPHROTOXICITY OF AMINOGLYCOSIDES INCREASES WHEN THEY ARE COMBINED WITH**

A) cephalosporins B)
chloramphenicol C)
penicillin D)
erythromycin

**139. THE SAFEEST BRONCHODITER IN ELDERLY PATIENTS WITH CHRONIC ACCIDENT IS**

A) Atrovent
B) salbutamol C)
fenoterol D)
euphyllin

**140. A MAN WITH COPD AND COMPLAINTS OF DIFFICULTY URINATION SHOULD NOT BE PRESCRIBED**

A) Atrovent
B) salbutamol
B) fenoterol D) theophylline

**141. CROHN'S DISEASE IS NOT A COMPLICATION OF THE GASTROINTESTINAL TRACT**

A) polyposis
B) perforation C)
cholelithiasis
D) intestinal obstruction

**142. CLINICAL SIGNIFICANCE OF BARRETT'S ESOPHAGUS DETERMINED BY INCREASED RISK OF DEVELOPMENT**

A) adenocarcinoma of the esophagus
B) bleeding from esophageal varices C) squamous cell carcinoma of the esophagus D) leukoplakia of the esophagus

**143. Barrett's Esophagus is Characterized by Metaplasia**

A) multilayered squamous nonkeratinizing epithelium of the esophagus with the development of columnar epithelium of the intestinal type B) multilayered squamous nonkeratinizing epithelium of the esophagus with the development of columnar epithelium with glands of the cardiac type
B) multilayered flat nonkeratinizing epithelium of the esophagus with the development of columnar epithelium with glands of the fundic (gastric) types D) epithelium of the stomach of the intestinal type

**144. THE RISK OF ESOPHAGEAL ADENOCARCINOMA IS HIGHEST IN**

A) intestinal metaplasia of the esophageal epithelium with high-grade dysplasia
B) eosinophilic infiltration of the esophagus with more than 15 eosinophils detected in the field of view
C) cylindrical metaplasia with fundic-type glands D) cylindrical metaplasia with cardiac-type glands

**145. THE MAIN FACTOR IN THE DEVELOPMENT OF ATRIAL FIBRILLATION IS**

A) dilation of the left atrium myocardium B) focal fibrosis of the ventricular myocardium C) left ventricular hypertrophy D) dilation of the left ventricle

**146. GENETICALLY DETERMINED HEART DISEASE IS**

A) hypertrophic cardiomyopathy B) alcoholic cardiomyopathy C) myocarditic cardiosclerosis D) patent foramen ovale

**147. THE MAIN FACTORS PREDISPOSING TO THROMBOSIS ARE**

A) endothelial damage, turbulent blood flow, hypercoagulation B) vasospasm, atherosclerosis, high plasma renin activity C) thrombocytopenia, microcirculatory bed rarefaction, embolism D) atheromatous plaques, hemostasis, hypocoagulation

**148. THE CARDIOVASCULAR MANIFESTATION OF MARFAN SYNDROME IS**

A) aortic aneurysm B) vasculitis
B) myocardial fibrosis
C) disturbance of cardiac rhythm and conduction

**149. IN HYPERTROPHIC CARDIOMYOPATHY WITH CONTRAINDICATED WITH LEFT VENTRICULAR OUTFLOW TRACT OBSTRUCTION**

A) digoxin
B) bisoprolol
B) verapamil
D) diltiazem

**150. STAGE III CHRONIC KIDNEY DISEASE (CKD 3A) CORRESPONDING TO SCF_____Ml/min/1.73m2**

A) 45-59
B) 30-44
B) 15-29
D) <15

**151. STAGE FOUR CHRONIC KIDNEY DISEASE (CKD 4) CORRESPONDING TO SCF_____ML/MIN/1.73M2**

A) 15-29
B) 45-59
B) 30-44
D) 60-89

**152. A SIGN OF 1ST ST AV BLOCK IS**

A) increase in PQ more than 200 ms
B) gradual prolongation of PQ followed by loss of QRS C) independent contractions of the atria and ventricles
D) QRS dropout without gradual prolongation of PQ

**153. CLASS III ANTIARHYTHMIC DRUGS INCLUDE**

A) Amiodarone
B) Quinidine C) Lidocaine D) Propafenone

**154. TREATMENT OF AUTOIMMUNE HEPATITIS IS CONDUCTED**

A) corticosteroids (sometimes in combination with cytostatics)
B) antiviral therapy
B) categorical refusal of alcohol
D) dynamic observation

**155. LIVER CIRRHOSIS DEVELOPS AT THE FASTEST RATE WHEN**

A) autoimmune (lupoid) hepatitis B) chronic viral hepatitis B C) chronic viral hepatitis C
D) alcohol intoxication

**156. MORPHOLOGICAL SUBSTRATES OF NON-SPECIFIC ULCERATING COLITIS ARE**

A) chronic erosion, ulcer, crypt abscesses B) specific granulomas C) lymphocytic granulomas
D) cicatricial changes in the intestine

**157. ENDOSCOPIC MANIFESTATION OF NON-SPECIFIC ULCERTIVE COLITIS IN THE EXACERBATION PHASE IS**

A) ulceration and hyperemia of the intestinal mucosa B) narrowing of the intestinal lumen C) total atrophy of the mucosa D) hemorrhoidal node

**158. INFLAMMATION IN ULCERATING COLITIS AFFECTS**

A) mucous membrane

B) all layers of the intestine
B) submucosa
C) muscular membrane

**159. IN THE REMISSION STAGE OF NON-SPECIFIC ULCERATING COLITIS IT IS ENDOSCOPICALLY DETECTED**

A) unchanged mucous membrane
B) mucosa in the form of a “cobblestone
pavement” C) mucosa with erosions
D) contact bleeding of the mucous membrane

**160. IN CROHN'S DISEASE THE FOLLOWING ARE AFFECTED**

A) all layers of the intestine
B) mucous and submucous layers
B) submucosal and muscular layers
C) muscular layer and serous membrane

**161. USE OF VAGAL TESTS CAN INTERRUPT AN ATTACK**

A) atrial paroxysmal tachycardia B) ventricular
fibrillation C) atrial fibrillation
D) ventricular paroxysmal tachycardia

**162. FOR THE DIAGNOSIS OF NEPHROTIC SYNDROME, THE MOST IMPORTANT CRITERION IS THE IDENTIFICATION**

A) daily proteinuria more than 3.5 g B)
edema
B) serum albumin level below 30 g/l D)
hypercoagulation

**163. THE LEAST LIKELY CAUSE OF NEPHROTIC SYNDROME IS**

A) polycystic kidney
disease B)
glomerulonephritis C)
multiple myeloma
D) diabetic nephropathy

**164. TREATMENT OF HEART FAILURE IN DILATED CARDIOMYOPATHY INCLUDES THE PRESCRIPTION OF**

A) angiotensin-converting enzyme inhibitors B) calcium
antagonists (phenylalkylamines)
B) phosphodiesterase inhibitors D)
carbonic anhydrase inhibitors

**165. THE DRUG OF CHOICE FOR VENTRICULAR TACHYCARDIA IS**

A) lidocaine B)
digoxin C)
disopyramide D)
etacizin

**166. TO ASSESS THE EFFECTIVENESS OF ANTITHROMBOTIC WARFARIN THERAPY IS DETERMINED**

A) international normalized ratio (INR)
B) bleeding time

B) thrombin time
D) reticulocyte level

**175. ANTIBIOTICS USED IN THE TREATMENT OF PNEUMONIA, WHICH HAVE PRONUNCIATED ANTI-TUBERCULOSIS ACTIVITY AND ARE CLASSIFIED AS ANTI-TUBERCULOSIS DRUGS, INCLUDE**

A) fluoroquinol B) macrolides
C) aminopenicillins D)
cephalosporin

**176. THE MAIN PATHOLOGICAL MANIFESTATION OF THE INTERMEDIATE PERIOD OF LONG-TERM COMPRESSION SYNDROME IS**

A) acute renal failure
B) progressive traumatic edema of the limb C) necrosis of
the skin and muscles of the limb D) acute liver failure

**177. TUMOR SUBSTRATES IN CHRONIC MYELOYLEUKEMIA ARE MOSTLY**

A) granulocytes B)
myeloblasts C) plasma
cells D) erythrocytes

**178. HEMORRHAGIC SYNDROME IN HEMOPHILIA A CAUSED BY A SHORTAGE**

A) Factor VIII
B) antithrombin III
B) protein C
D) formation of platelets

**179. DESTRUCTION OF FLAT BONES OCCURRES MAINLY IN**

A) multiple myeloma B)
thalassemia C) aplastic anemia
D) erythremia

**180. DRESSLER'S SYNDROME DEVELOPES AFTER**

A) acute myocardial infarction
B) community-acquired pneumonia
B) acute myocarditis
D) acute gastritis

**181. A FEATURE OF HEMODYNAMICS IN DILATED CARDIOPATHY IS**

A) decreased stroke volume and cardiac output B)
increased left ventricular ejection fraction C) delayed
mitral valve opening
D) decrease in the diastolic volume of the left ventricle

**182. IN HYPERTROPHIC CARDIOPATHY IT DEVELOPS**

A) relative coronary insufficiency

B) nonspecific coronary arteryitis
B) coronary artery spasm
D) acute coronary artery thrombosis

**183. AN AUSCULTATIVE SIGN OF EFFUSION INTO THE PLEURAL CAVITY IS**

A) a sharp weakening of breathing B) amphoric breathing
C) crepitation D) pleural friction rub

**184. TAKAYASU'S DISEASE IS CHARACTERIZED BY THE PRESENCE OF CLINICAL PICTURE**

A) absence of pulse in one arm
B) hemorrhagic purpura
B) mesh livedo
D) hemoptysis

**185. ERYTHEMA NODOSA IS OBSERVED AS AN EXTRAINTESTINAL MANIFESTATION**

A) Crohn's disease
B) diverticular disease of the intestine C) pseudomembranous colitis D) irritable bowel syndrome

**186. IN THE DIAGNOSIS OF THE EROSIVE FORM OF GASTROESOPHAGEAL REFLUX DISEASE, THE "GOLD STANDARD" IS**

A) daily monitoring of pH in the esophagus and stomach + esophagogastroscopy
B) determination of Helicobacter pylori
B) stool test for occult blood
D) X-ray examination of the esophagus and stomach

**188 . AN INCREASE IN THE LEVEL OF CALPROTECTIN IN FECA ABOVE 300 MCG/G CONFIRMS THE DIAGNOSIS**

A) Crohn's disease
B) ascariasis
B) irritable bowel syndrome D) celiac disease

**189. REFLECTIVE CURE OF CARDIAC RHYTHM DISORDERS IS POSSIBLE WITH**

A) supraventricular tachycardia B) complete AV block C) ventricular tachycardia D) frequent extrasystoles

**190. USED FOR THE TREATMENT OF ULCERAL COLITIS**

A) sulfasalazine
B) amoxicillin
B) tetracycline
D) pancreatin

**191. FOR BIOLOGICAL THERAPY OF CROHN'S DISEASE ARE USED**

A) infliximab
B) azathioprine
B) prednisolone
D) methotrexate

**192. THE DRUG OF CHOICE FOR THE TREATMENT OF WEGENER'S GRANULOMATOSIS IS**

A) cyclophosphamide
B) leflunomide C)
pentoxifylline D)
methotrex

**193. FOR THE DIAGNOSIS OF WILSON-KONOVALOV DISEASE, THE DEFINITION IS USED**

A) serum ceruloplasmin B) blood
creatine phosphokinase
B) the level of Bence-Jones protein in
urine; D) the level of cyanocobalamin in
the blood.

**194. IN THE PRESENCE OF BRADICARDIA IN PATIENTS WITH ARTERIAL HYPERTENSION, THE SAFEEST OPTION IS**

A) Amlodipine B)
Verapamil C)
Propranolol D)
Atenolol

**195. IN ULCERATE COLITIS, BLOOD TESTS DETERMINE**

A) anemia, leukocytosis, increased ESR
B) anemia, leukopenia, thrombocytopenia
B) erythrocytosis, leukocytosis, thrombocytopenia
C) leukopenia, lymphocytosis, increased ESR

**196. ACUTE LEUKEMIA DIAGNOSIS CAN BE DEFINITELY ESTABLISHED UPON DETECTION**

A) more than 20% blast cells in the bone marrow
B) more than 20% blast cells in the peripheral blood C) with a
combination of fever, anemia and bleeding
D) in the presence of anemia in combination with thrombocytopenia, bone pain and fever

**197. THE LEVEL OF GLOMERULAR FILTRATION CHARACTERISTIC OF STAGES OF CHRONIC KIDNEY DISEASE, CORRESPONDING TO _____MI/MIN.**

A) 30
B) 60
B) 20
D) 15

**198. THE PATHOGENESIS OF ACUTE DIC SYNDROME IS BASED ON**

A) generalized damage to the endothelium of microvessels B)
damage to the adhesive properties of platelets C) depletion and
deficiency of prostacyclin D) production of antibodies to platelets

**199. THE MAIN CLINICAL MANIFESTATION OF DILATED CARDIOMYOPATHY IS**

A) heart failure
B) chest pain
B) arterial hypertension
D) fainting

**200. THE TARGET ORGANS MOSTLY AFFECTED IN WILSON-KONOVALOV DISEASE ARE**

A) liver and brain B)
kidneys and lungs C)
liver and lungs D)
heart and kidneys

**201. THE MAIN METHOD OF DIAGNOSIS OF HYPERTROPHIC CARDIOMYOPATHY IS**

A) echocardiography
B) electrocardiography C)
phonocardiography D)
radiography

**202. TO ASSESS THE DEGREE OF HYPERTROPHIC SUBAORTHAL STENOSIS IN A PREGNANT WOMAN, IT IS NECESSARY TO CONDUCT**

A) echocardiography
B) ECG with physical activity
B) radionuclide scanning of the heart D) chest
X-ray

**203. CLINICAL MANIFESTATION OF CREST SYNDROME IS**

A) telangiectasia
B) proximal myopathy
B) intestinal damage
D) kidney damage

**204. A SYMPTOM OF DERMATOMYOSITI IS**

A) supraorbital edema and hyperemia of the skin around the
eyes B) “butterfly” on the face C) osteolysis of the nail
phalanges D) joint deformation

**205. DIAGNOSTIC SIGNIFICANCE IN DERMATOMYOSIS IS**

A) high activity of creatine phosphokinase B)
increased levels of acute phase proteins C)
moderate leukocytosis D) presence of hemolytic
anemia

**206. LARGE CALIBRE VESSELS ARE AFFECTED BY**

A) Takayasu's arteritis
B) Buerger's disease
B) periarteritis nodosa
D) hemorrhagic vasculitis

**207. PRELIMINARY DIAGNOSIS OF A 68-YEAR-OLD MAN WITH DETECTED GENERALIZED LYMPHADENOPATHY, SPLENOMEGALY AND LEUCOCYTES $84X10^{9}$ /L (P/Ya 2, S/Ya 18, L 72, M 8)**

A) chronic lymphocytic leukemia

B) idiopathic myelofibrosis
B) chronic myelogenous leukemia
D) Hodgkin's disease

**208. IN HEMOPHILIA THERE IS AN INCREASE IN VALUE**

A) APTT
B) protein C)
protein
C) plasminogen

**209. ATRIAL FIBRILATION IS CHARACTERISTIC**

A) absence of P waves
B) ventricular complex rate greater than 120 beats per
minute C) presence of premature QRS complexes D)
shortening of PQ intervals

**210. DARK AND YELLOW COLORING OF THE SKIN IN CHRONIC RENAL FAILURE DEPENDS ON**

A) impaired excretion of urochromes B)
increased direct bilirubin C) increased
indirect bilirubin D) impaired synthesis of
urochromes

**211. IF YOU SUSPECT AN ENCALCULATED PLEURISY, BEFORE PLEURAL PUNCTURE YOU MUST CARRY OUT**

A) Ultrasound
B) bronchoscopy C)
fluoroscopy
D) sputum microscopy

**212. A HIGH FREQUENCY OF LYMPHOPROLIFERATIVE TUMORS DEVELOPMENT IS NOTED IN**

A) Sjogren's syndrome
B) systemic lupus erythematosus C)
rheumatoid arthritis
D) systemic scleroderma

**213. EOSINOPHILIIA IS MORE OFTEN ACCOMPANIED**

A) periarteritis nodosa
B) rheumatoid arthritis
B) scleroderma
C) gout

**214. FOR PNEUMONIA CAUSED BY MYCOPLASMA, THEY ARE USED**

A) azithromycin B)
ceftriaxone C)
gentamicin D)
amoxicillin

**215. MORE OFTEN CAUSE ACUTE RENAL FAILURE**

A) aminoglycosides
B) penicillins C)
cephalosporins D)
macrolides

**216. THE ANTIARRHYTHMIC DRUG WITH THE LEAST SAFE EFFECT IN THE TREATMENT OF TACHYARRHYTHMIAS CAUSED BY DIGITALIS INTOXICATION IS**

A) lidocaine
B) procainamide
C) propranolol D)
verapamil

**217. THE DRUG OF CHOICE FOR THE TREATMENT OF SUPRAVENTRICULAR PAROXYSMAL TACHYCARDIA IS**

A) verapamil
B) amiodarone
C) lidocaine D)
diltiazem

**218. SAFE FOR ARTERIAL HYPERTENSION AND BRADICARDIA**

A) amlodipine
B) propranolol
B) verapamil
D) digoxin

**219. IN ACUTE LEUKEMIA, CYTOSTATIC THERAPY IN THE CONSOLIDATION PHASE IS USED IN THE STAGE**

A) remission B)
relapse C) full-
blown
D) terminal

**220. THE MAIN CYTOCHEMICAL MARKER OF ACUTE MYELOBLASTIC LEUKEMIA IS A POSITIVE REACTION TO**

A) myeloperoxidase B)
ß-glucuronidase C)
ATPase D) acid
phosphatase

**221. FOR THE DIAGNOSIS OF CHRONIC LYMPHOCYTE LEUKEMIA IN COMBINATION WITH OTHER SIGNS, A PERCENTAGE OF LYMPHOCYTES IN THE MYELOGRAM OF MORE THAN 100% IS QUITE RELIABLE**

A) 30
B) 20
C) 10
D) 40

**222. THE PRESENCE OF THE PHILADELPHIA CHARACTERISTIC**

A) chronic myelogenous leukemia
B) subleukemic myelosis
B) acute erythromyelosis
D) acute myelomonocytic leukemia

**223. MORPHOLOGICAL SUBSTRATE OF MULTIPLE MYELOMA PRESENTED**

A) plasma cells

B) lymphocytes
B) macrophages
C) eosinophils

**224. THE ENZYME THAT METABOLIZES ALCOHOL IN THE BODY IS**

A) alcohol dehydrogenase B)
glucose-6-phosphatase C)
alcohol oxidase D) alcohol
synthetase

**225. IN CHRONIC RENAL FAILURE, THE PATHOGENETIC TREATMENT OF ANEMIA IS USED**

A) erythropoietin
B) iron preparations
B) transfusion of red blood cells
D) vitamin B12

**226. PATHOGENETIC DRUGS FOR THE TREATMENT OF EDEMA IN NEPHROTIC SYNDROME INCLUDE**

A) protein preparations, diuretics
B) antiplatelet agents, anticoagulants, antibiotics
B) glucocorticoids, cytostatics, antiplatelet agents, anticoagulants D)
glucocorticoids, anticoagulants, antibiotics

**227. INDICATIONS FOR URGENT HEMODIALYSIS IN ACUTE RENAL FAILURE ARE**

A) increased serum potassium level of 6.5 mmol/l or more B)
high hypertension C) oliguria

D) increase in urea level over 10 mmol/l

**228. CYTOSAR IS USED IN COMBINATION WITH AS INDUCTION COURSES FOR ACUTE NON-LYMPHOBLASTIC LEUKEMIA**

A) daunorubicin B)
chlorbutin C)
doxarubicin D)
prednisolone

**229. IN THE TREATMENT OF CHRONIC LYMPHOCYTIC LEUKEMIA ARE USED**

A) Mabthera
B) Alexan
B) vesanoide
C) Alkeran

**230. THE DRUG OF CHOICE IN THE TREATMENT OF WILSON-KONOVALOV DISEASE IS**

A) D-penicillamine (cuprenil) B)
roferon C) prednisolone D)
essentiale

**231. USED TO TREAT ULCERAL COLITIS AND CROHN'S DISEASE**

A) sulfasalazine

B) atorvastatin
B) allochol
D) penicillin

**232. A RISK FACTOR FOR THE DEVELOPMENT OF COLON CANCER IN PATIENTS WITH ULCERAL COLITIS IS**

A) severe dysplasia of the colon mucosa B) taking glucocorticoids C) development of sclerosing cholangitis D) development of pseudopolyposis

**233. A PROGNOSTIC UNFAVORABLE FACTOR INDICATING THE POSSIBILITY OF SUDDEN DEATH IN HYPERTROPHIC CARDIOMYOPATHY IS**

A) ventricular tachycardia B) angina pectoris
B) development of heart failure
D) complete left bundle branch block

**234. A diet is necessary when treating acute renal failure.**

A) fruit and vegetable
B) with the exclusion of animal fats C) carbohydrate-fat D) with a high protein content

**235. FOR THE PREVENTION OF SUDDEN CARDIAC DEATH, PATIENTS WITH HYPERTROPHIC CARDIOMYOPATHY AND VENTRICULAR TACHYCARDIA ARE RECOMMENDED**

A) implantation of a cardioverter-defibrillator B) limitation of physical activity C) long-term use of statins
D) implantation of a pacemaker

**236. BOTKIN-HUMPRECHT CELLS ARE DETECTED AT**

A) chronic lymphocytic leukemia
B) chronic myelogenous leukemia
B) multiple myeloma
D) acute myeloid leukemia

## TEST TASKS ON HOSPITAL THERAPY 11-12 SEMS

**1. BLOOD PRESSURE LEVEL IS REGULATED BY FACTORS**

A) fabric
B) psychosocial
B) genetic
D) intoxication

**2. THE HUMORAL FACTOR THAT DETERMINES THE TONE OF THE VASCULAR WALL IS**

A) endothelin
B) adrenaline

B) adrenocorticotropin
C) nitric oxide

**3.THE MAIN REASON FOR INCREASED DIASTOLIC PRESSURE IS**
A) increased tone of arterioles
B) increase in cardiac output
B) decreased elasticity of the aortic wall
D) increased elasticity of the aortic wall

**4. FOR ARTERIAL HYPERTENSION THE MOST CHARACTERISTIC IS**
A) increase in cardiac output
B) decreased cardiac output
B) decrease in total peripheral resistance D) increase in central venous pressure

**5. THE LEVEL OF TRIGLYCERIDES, WHICH IS A RISK FACTOR FOR THE DEVELOPMENT OF CARDIOVASCULAR DISEASES, IS mmol/L_____**

A) 1.7
B) 1.2
B) 1.0
D) 0.7

**6. IT IS RECOMMENDED TO STOP SMOKING FOR ONE HOUR BEFORE MEASURE YOUR BLOOD PRESSURE**
A) 0.5 B) 2.5
C) 1.5 D) 2

**7. A SIGN OF TARGET ORGAN DAMAGE IN ARTERIAL HYPERTENSION IS THE LEFT MYOCARDIAL MASS INDEX VENTRICLE, WHICH MAKES UP _____G/M $^2$**
A) 125
B) 115
B) 110
D) 105

**8. AN ASSOCIATED CLINICAL CONDITION WITH ARTERIAL HYPERTENSION INCLUDE**
A) dissecting aortic aneurysm B) aortic stenosis
B) aortic insufficiency
D) tricuspid insufficiency

**9.THRESHOLD BLOOD PRESSURE LEVEL FOR DIAGNOSIS OF ARTERIAL HYPERTENSION IS mm Hg.**
A) 140/90 B) 130/80 B) 135/85
D) 145/90

**10. ADDITIONAL METHOD OF EXAMINING PATIENTS**

**ARTERIAL HYPERTENSION, WHICH ESTABLISHES THE PRESENCE AND SEVERITY OF TARGET ORGAN DAMAGE, IS**

A) assessment of the condition of the fundus
B) daily excretion of cortisol in urine C)
blood aldosterone levels
C) daily excretion of adrenaline

**11. PATIENTS WITH ARTERIAL HYPERTENSION WITH HIGH AND VERY HIGH RISK IS CONSIDERED IN THE PRESENCE OF SYNDROME** _____

A) metabolic
B) astheno-vegetative C)
dyspeptic
D) postcholecystectomy

**12. ARTERIAL HYPERTENSION IN PHEOCHROMOCYTOMA IS CAUSED BY**

A) increased secretion of catecholamines B)
increased renin secretion
B) excessive secretion of mineralocorticoids D)
increased formation of angiotensin

**13.THE CAUSE OF ARTERIAL HYPERTENSION IN CASE OF DAMAGE TO THE KIDNEY PARENCHYMA IS**

A) activation of the renin-angiotensin system
B) excessive secretion of mineralocorticoids
B) increased secretion of catecholamines
D) increased formation of angiotensin

**14. WHEN CONDUCTING A DIFFERENTIAL DIAGNOSIS OF HYPERTENSION WITH ITSENKO-CUSHING'S SYNDROME, THE MOST SPECIFIC METHOD IS DETERMINATION**

A) 17-hydroxycorticosteroid
B) thyrotropin
B) renin
C) creatinine

**15. SUDDEN ONSET OF HEADACHE, SHARP INCREASE IN BLOOD PRESSURE, TACHYCARDIA, AFTER AN ATTACK POLYURIA IS CHARACTERISTIC FOR**

A) pheochromocytomas
B) Conn's syndrome
B) Itsenko-Cushing syndrome
D) climacteric syndrome

**16. ST SEGMENT DEPRESSION ON THE ECG IS TYPICAL FOR**

A) an attack of angina pectoris
B) an attack of variant (vasospastic) angina C) pericarditis D)
left ventricular aneurysm

**17. THE MOST COMMON CAUSE OF ACUTE MYOCARDITIS IS**

A) viral infections
B) bacterial infections
B) fungal infections
D) exposure to toxins

**18. [T022960] WITH THE DEVELOPMENT OF MYOCARDIAL INFARCTION, NORMALIZATION OF THE CONTENT OF MB CPK IN THE BLOOD IS OBSERVED THROUGH**

A) 2-3 days B) 1 day
C) 5-6 days D) 14
days

**19. WHO CLASSIFICATION TYPE IIA HYPERLIPIDEMIA IS CHARACTERIZED BY AN INCREASE IN BLOOD PLASMA**

A) LDL B) VLDL
B) LDL and VLDL D) LP (a)

**20. WHO CLASSIFICATION TYPE IIB HYPERLIPIDEMIA IS CHARACTERIZED BY AN INCREASE IN BLOOD PLASMA**

A) LDL and VLDL B) LDL
C) VLDL D) LP(a)

**21. CHOLESTEROL IN THE HUMAN BODY**

A) is synthesized in the liver and comes from food
B) is synthesized in the liver and adrenal glands
B) comes exclusively from food
C) is synthesized in the liver and kidneys

**22. TO THE DEPRESSOR NEUROHUMORAL MECHANISM IN DEVELOPMENT HEART FAILURE INVOLVES ACTIVATION**

A) brain and atrial natriuretic peptides B) SAS C) RAAS D) ADH

**23. FOR A PATIENT WITH A HISTORY OF MYOCARDIAL INFARCTION, THE TARGET IS THE LDL INDICATOR IN _____MMOLE/L**

A) 1.8
B) 2.5
B) 3.0
D) 3.5

**24. MYOCARDITIS CAN BE RELIABLY DIAGNOSISED BY RESULTS**

A) myocardial biopsy B)
echocardiography
B) ECG
D) myocardial scintigraphy

**25. THE MOST COMMON CAUSE OF CORONARY INSUFFICIENCY IS**

A) atherosclerosis of the coronary arteries B)
"muscle" bridge
B) coronary artery disease

D) left ventricular hypertrophy

**26. PRIMARY CARDIOMYOPATHIES INCLUDE**

A) hypertrophic B)
alcoholic C) metabolic
D) dyshormonal

**27. THE TARGET VALUE OF LDL FOR PATIENTS WITH TYPE 2 DIABETES IN COMBINATION WITH IHD IS A LEVEL < mmol/L**

A) 1.8 B) 2.0
C) 2.5 D) 3.0

**28. SYNCOPAL STATES, VERTIGO, CORONARY INSUFFICIENCY AND DYSPNEA ARE MOST COMMONLY OCCURRING IN**

A) HCM with LV outflow tract obstruction B)
aortic valve insufficiency
B) DCMP
D) post-infarction cardiosclerosis

**29. TO MODIFIABLE RISK FACTORS FOR THE DEVELOPMENT OF ATHEROSCLEROSIS IS**

A) diabetes mellitus type 2 B)
age
B) a burdened heredity
C) male gender

**30. In the SCORE TABLE for ASSESSING CARDIOVASCULAR RISK MISSING INDICATOR**

A) blood glucose
B) total cholesterol
B) systolic blood pressure
D) age

**31. A CARDIOCARDIAL SPECIFIC MARKER OF MYOCARDIAL NECROSIS IS**

A) troponin I B)
myoglobin C)
LDH D) total
CPK

**32. INCREASED PLASMA TRIGLYCERIDE LEVELS OBSERVED DURING TREATMENT**

A) colestipol
B) atorvastatin
B) fenofibrate
D) nicotinic acid preparations

**33. WHEN CHOOSING AN ACE INHIBITOR FOR THE TREATMENT OF A PATIENT WITH CHF AND IMPAIRED RENAL FUNCTION, PREFERENCE SHOULD BE GIVEN**

A) fosinopril
B) lisinopril

B) perindopril
D) captopril

**34. CARDIAC GLYCOSIDES IN CHF PATIENTS CONTRAINDICATED IN**
A) at the II degree block.
B) at the first stage block.
B) atrial fibrillation
D) sinus tachycardia

**35. THE GREATEST LIPIDEMIC EFFECT CAN BE ACHIEVED AT RECEPTION**
A) rosuvastatin
B) simvastatin
B) atorvastatin
D) pravastatin

**36. STATINS SHOULD BE DISCONTINUED IF BLOOD TRANSAMINASE ACTIVITY INCREASES ABOVE THE NORMAL LEVELS**
A) 3 times

B) 2 times

B) 4 times

D) 5 times

**37. TO ANTAGONISTS OF MINERALCORTICOID RECEPTORS RELATED**
A) eplerenone
B) torasemide
B) triamterene D)
indapamide

**38. POTASSIUM-SPARING DIURETICS INCLUDE**
A) triamterene B)
indapamide
B) hydrochlorothiazide
D) torasemide

**39. TO POSTSYNAPTIC BLOCKERS -alpha1 – ADRENORECEPTORS RELATED**
A) doxazosin
B) moxonidine
B) aliskiren
D) phentolamine

**40. WHEN EXAMINED WITH A TRANSABDOMINAL SENSOR, THE WALL THE NORMAL APPEARANCE OF THE GALLBLADDER IS**
A) a single-layer isoechoic structure that forms the outline of the gallbladder
B) a single-layer curvilinear structure consisting of hypo- and hyperechoic layers C) a two-layer linear structure consisting of hypo- and hyperechoic layers D) a two-layer hypoechoic structure forming the outline of the gallbladder

**Appendix No. 2.**

**Situational tasks in hospital therapy (9-10 semesters)**

Therapy problem with answer 1

Patient G., 48, a foreman at a chemical plant, consulted a doctor at the outpatient clinic complaining of sharp, squeezing pain behind the breastbone, radiating to the left shoulder and epigastric region. This pain had first occurred on the way to work. Since the outpatient clinic was nearby, the patient consulted a doctor. He had previously suffered from pneumonia. He smoked and did not abuse alcohol.

Objectively: overnourished. The skin is pale and moist. Cyanosis of the lips. Vesicular breathing in the lungs, no wheezing. Pulse is 92 per minute, rhythmic, satisfactory volume. Blood pressure - 155/80 mmHg. Cardiac borders: the right - along the right edge of the sternum, the left - 1 cm outward from the left midclavicular line. Heart sounds are muffled, there are no murmurs. The abdomen is soft, painless. The liver and spleen are not palpable.

Assignment for the therapy problem

1. Make a diagnosis.
2. Conduct differential diagnostics.
3. Outline a survey plan.
4. Outline a treatment plan.

Results of additional examination for therapy task 1:

ECG - attached.

1. Complete blood count: erythrocytes - 4.5x1012, leukocytes - 10.5x109, e. - 0, p. - 6, seg. - 65, l. - 22, m. - 7,

ESR - 10 mm/hour.

2. Blood clotting - 3 min.
3. PTI - 100%.
4. CRP+, CPK - 2.4 mmol/hl, AST - 26 U/l, ALT - 18 U/l.
5. X-ray - included.

Sample answers to problem on therapy 1

1. IHD: myocardial infarction.
2. Differential diagnosis is carried out with angina pectoris, acute abdomen, dissecting aortic aneurysm, myocarditis, pericarditis, pleurisy, pneumothorax.
3. The examination plan includes: a complete blood count (CBC), a dynamic ECG, blood tests for CPK, LDH, AST, ALT, CRP, PTI, blood clotting, urine myoglobin, chest X-ray, radioisotope diagnostics, and coronary angiography.
4. Treatment plan: pain relief - narcotic analgesics, neuroleptics, fibrinolytic and anticoagulant therapy, prevention of rhythm disturbances, treatment of complications.

Therapy problem with answer 2

Patient K., 57, a teacher, was admitted by ambulance complaining of intense, crushing chest pain radiating to the left shoulder, lasting for 1.5 hours and unrelieved by nitroglycerin, along with irregular heartbeats, severe general weakness, and cold, clammy sweat. The previous day, he had been overworking at his dacha. His medical history includes attacks of crushing chest pain lasting 3-5 minutes during brisk walking for 4-5 years. These pains subside with rest and nitroglycerin.

Objectively: the skin is pale, acrocyanosis, and the palms are moist. Pulse is 96 beats per minute, with isolated extrasystoles. Blood pressure is 90/60 mmHg. The cardiac borders are dilated to the left by 1.5 cm. The heart sounds are muffled, with isolated extrasystoles. Vesicular breath sounds are heard in the lungs. The abdomen is soft and painless. The liver is not palpable.

Complete blood count: erythrocytes - 4.3 x 1012, leukocytes - 9.2 x 109, p. - 4, seg. - 66, l. - 23, m. - 7, ESR -

10 mm/hour.

Assignment for the therapy problem
1. Make a diagnosis.
2. Conduct a differential diagnosis.
3. Outline a plan for further examination.
4. Prescribe treatment.
Results of additional examination for task 2 on therapy:
1. ECG - attached.
2. Blood serum: CRP+, LDH 360 U/l, CPK 2.4 mmol/gl, AST 24 U/l, ALT 16 U/l.
3. Blood clotting - 3 min.
4. PTI - 100%.
5. Complete blood count on the sixth day after hospitalization: leukocytes - 6.0x109, e. - 1, p. - 2, segm. - 64, l. - 24, m. - 9, ESR - 24 mm/hour.
6. X-ray - attached.
Standard answers to the problem on therapy 2
1. IHD: large-focal myocardial infarction. Heart rhythm disturbance such as extrasystole.
2. Differential diagnosis is carried out with angina pectoris, pericarditis, myocarditis, cardiomyopathy, dissecting aortic aneurysm, pneumothorax, pleurisy, pulmonary embolism.
3. The examination plan includes: a complete blood count (CBC), a dynamic ECG, blood tests for CPK, LDH, AST, ALT, CRP, PTI, blood clotting, urine myoglobin, chest X-ray, radioisotope diagnostics, and coronary angiography.
Treatment: pain relief - narcotic analgesics, neuroleptics, fibrinolytic and anticoagulant therapy, antiarrhythmic therapy, treatment of complications.
Therapy problem with answer 3
Patient V., 58, an engineer, suddenly experienced rapid, irregular heartbeats two hours ago while working at his dacha. He was taken to the emergency room. He had been reporting similar palpitations, often during exertion, for the past year. These episodes were brief and resolved spontaneously with rest. His medical records over the past two years revealed repeated elevated cholesterol levels (7.6 mmol/L, predominantly low-density lipoproteins).
Objectively: the skin is somewhat pale, the constitution is hypersthenic. In the lungs, breathing is vesicular, there are no wheezing. The left border of the heart is along the midclavicular line. Blood pressure is 150/100 mm Hg. Pulse in the radial arteries is frequent, arrhythmic, the frequency is
102 per minute. Heart sounds at the apex are irregular and arrhythmic, with a heart rate of 112 beats per minute. The abdomen is soft and painless. The liver is not enlarged.
Assignment for the therapy problem
1. Establish a preliminary diagnosis.
2. Outline a plan for further examination of the patient.
3. Conduct differential diagnostics.
4. Determine the treatment tactics.
Results of additional examination for therapy task 3:
1. ECG - attached.
2. ECHO-CS - slight dilation of the left atrium (3.8 cm). Blood for cholesterol - 7.6 mmol/L, AST - 5 U/L, ALT - 4 U/L, CRP - 0, PTI - 102%, coagulation -
8 min.
3. Fundus of the eye - atherosclerosis of the retinal vessels.
4. General urine analysis: specific gravity - 1020, no protein, no sugar, l - 1-2 in the field of view.
5. Blood sugar test - blood glucose - 4.5 mmol/l.
6. General blood test: Hb - 140 g/l, er. - 4.5x1012/l, l. - 6.0x109/l, ESR - 6 mm/hour.

Sample answers to problem 3 on therapy
1. Preliminary diagnosis: coronary heart disease: rhythm disturbance of the
paroxysmal atrial fibrillation type (tachystolic form).
2. Further examination plan for the patient: ECG, 24-hour Holter monitoring, ECHO-CS, electrophysiological studies of the heart, laboratory parameters: AST, ALT, CRP, PTI, blood clotting, fundus examination.
3. Atrial fibrillation as a syndrome in rheumatic heart defects, thyrotoxicosis, and cardiopathies.
4. Treatment: the main goal is to relieve the paroxysm and restore sinus rhythm:
drugs of group 1 (novocainamide, quinidine, rhythmilene);
electrical stimulation.
B anti-relapse therapy: cordarone, beta-blockers, calcium antagonists, drugs of the 1st group of antiarrhythmic agents.
5. Treatment of coronary heart disease: cholesterol-lowering
drugs, diet. Therapy problem with answer 4
Patient D., 55, a high school teacher, consulted a cardiologist complaining of palpitations in his heart. He had been experiencing these sensations for about a year. However, over the past month, the palpitations have become more frequent, often accompanied by weakness and even dizziness. He associates these palpitations with physical exertion. His medical history includes periodic attacks of squeezing chest pain during brisk walking, which subside with rest.
Objectively: the general condition is satisfactory, the skin is of normal color and moisture. Vesicular breathing in the lungs, no wheezing. Blood pressure is 140/95 mm Hg. Pulse is 74 bpm. 1 minute, arrhythmic. Heart boundaries are unchanged. Heart sounds are somewhat muffled and arrhythmic—with occasional extra beats or longer intervals between heartbeats against a background of a regular rhythm. HR is 76 beats per minute. The abdomen is soft and painless. The liver is not enlarged.
Assignment for the therapy problem
1. Establish a preliminary diagnosis.
2. Outline a plan for further examination of the patient.
3. Conduct differential diagnostics.
4. Determine the treatment tactics.
Results of additional examination for therapy task 4:
1. ECG - attached.
2. 24-hour Holter monitoring - identification of polytopic extrasystoles, groups,
determination of the number of extrasystoles per hour - more than 30 per hour.
3. ECHO-CS - moderate expansion of the left ventricular cavity (5.7 cm); decreased contractility of the myocardium.
4. Bicycle ergometry - an increase in the number of extrasystoles with an increase in heart rate.
5. AST - 5 U/L, ALT - 4 U/L, CRP - 0, PTI - 102%, coagulation - 8 min., cholesterol - 7.8 mmol/L (low-density lipoproteins predominate).
6. Fundus of the eye - atherosclerosis of the retinal vessels.
7. General urine analysis - specific gravity - 1020, no protein, no sugar, p -1-2 in the field of view.
8. Blood sugar test - blood glucose - 4.5 mmol/l.
9. Complete blood count: Hb - 144 g/l, L - 6.0 x 109/l, ESR - 4
mm/hour. Sample answers to problem 4 on therapy
1. Preliminary diagnosis - coronary heart disease: rhythm disturbance of the extrasystole type (probably ventricular).
2. Patient examination plan: ECG, 24-hour Holter monitoring, ECHO-CS,
Bicycle ergometry, laboratory parameters: AST, ALT, CRP, PTI, blood clotting, fundus examination.

3. Differential diagnosis of extrasystole syndrome (normal variant, cardiac origin, non-cardiac causes).
4. Treatment: Beta-blockers, cordarone, etmozine, allopenin, rhythmonorm. Treatment effectiveness assessed by 24-hour monitoring: 70% reduction in the number of extrasystoles.
Therapy problem with answer key 5: Patient K., 58 years old, chief engineer at the plant, was admitted to the cardiology department with
Complaints of severe, throbbing headaches in the occipital region, accompanied by nausea, occasional vomiting, dizziness, and the appearance of "webs" before the eyes. Headaches had previously occurred, more often in the morning or after emotional stress. He had not sought medical attention. The most recent attack of pain occurred suddenly, despite feeling well. Prior to this, he had been on a business trip and working intensely.
Objectively: the patient's condition is moderate. The patient is somewhat agitated and frightened. The skin is clean and moist, with flushing of the face and neck. There are vesicular breath sounds in the lungs, no wheezing. The pulse is symmetrical, tense, and frequent - 92 beats per minute. Blood pressure is 195/100 mmHg on the right hand and 200/100 mmHg on the left. The left cardiac border is 1.5 cm outward from the left midclavicular line. Heart sounds are sonorous and rhythmic, with an accentuated P sound on the aorta. Heart rate is 92 beats per minute. The abdomen is soft and painless. The liver is not enlarged. Pasternatsky's sign is negative. There is no edema.
Assignment for the therapy problem
1. Establish a preliminary diagnosis.
2. Outline a survey plan.
3. Conduct differential diagnostics.
4. Determine the treatment tactics.
Results of additional examination for therapy task 5:
1. ECG - attached.
2. Fundus of the eye - narrowing of arteries and veins, tortuosity of vessels Salus - P.
3. Urinalysis: specific gravity - 1018, no protein, no sugar, l - 1-3 in the field of view.
4. Left ventricular hypertrophy, signs of hyperkinetic hemodynamics.
5. Complete blood count: Hb - 132 g/l, er - 4.5 x 1012/l, l - 6.0 x 109/l, c.p. - 0.9; e - 1, p - 4, s - 66, l - 24, m - 5, ESR - 6 mm/hour.
6. Blood glucose - 4.5 mmol/l.
Sample answers to problem 5 on therapy
1. Preliminary diagnosis: hypertension stage II. Hypertensive crisis type I.
2. Examination plan: ECG, fundus examination, general urine analysis, echocardiography, general blood analysis, blood glucose.
3. Differential diagnosis - exclusion of secondary arterial hypertension
(primarily of renal origin, as the most common).
4. Treatment:
therapy of hypertensive crisis;
Treatment of hypertension (hospitalization, bed rest, intravenous dibazol, diuretics, beta-blockers, sedatives). Blood pressure monitoring.
- cardioselective beta-blockers, calcium antagonists, diuretics, ACE inhibitors. Therapy task with answer 6 Patient P., 46 years old, was admitted to the department with complaints of headache in the parietal
occipital pain in the morning, dizziness, stabbing pain in the heart, poor sleep, general weakness. Sick for 2 months.
Objectively: the patient's condition is satisfactory, the patient is overnourished, and the facial skin is hyperemic. Vesicular breathing in the lungs is absent, with no wheezing. Pulse is 90 beats per minute, rhythmic and tense. Blood pressure in both arms is 180/100 mmHg. The left border of the heart is 1.0 cm lateral to the left midclavicular line, while the right and upper borders are normal. Heart sounds

The heart sounds are muffled at the apex. The P tone is accentuated in the aorta.
Abdominal examination reveals no pathological changes. Therapy problem assignment
1. Establish a preliminary diagnosis.
2. Outline a plan for additional examination.
3. Conduct differential diagnostics.
4. Determine the treatment tactics.
Results of additional examination for therapy task 6:
1. ECG - attached.
2. Complete blood count: erythrocytes - 4.9x1012/l, hepatitis B - 130 g/l, colorimetric count - 1.0, platelets - 300x109/l, leukocytes - 6.0x109/g, pal. - 2%, segm. - 60%, lymph. - 30%, mon. - 8%, ESR - 8 mm/hour.
3. General urine analysis: light yellow, acidic reaction, complete transparency, specific gravity - 1023, no protein or sugar, leukocytes - 0-2 in the field of view, erythrocytes - 1-2 in the field of view, no casts.
4. Urine analysis according to Zimnitsky: beat. weight from 1008 to 1027, daytime diuresis - 800.0 ml, nighttime diuresis - 500.0 ml.
5. Urinalysis according to Nechiporenko: in 1 ml of urine er. - 800, lake. - 1000.
6. Reberg test: glomerular filtration - 100 ml/min, tubular reabsorption - 98%.
7. Blood tests: urea - 6.0 mmol/l, creatinine - 0.088 mmol/l, cholesterol - 5.5 mmol/l, triglycerides - 1.5 mmol/l, beta-lipoproteins - 4.5 g/l, PTI - 100 units.
8. Cardiac X-ray - included.
9. Echocardioscopy: slight expansion of the left ventricular cavity, thickening of the posterior wall of the left ventricle, ejection fraction - 65%.
10. Ultrasound of the kidneys - the kidneys are of normal size, the renal pelvis and calyces are unchanged, no stones are detected.
11. Radiorenography - the absorption and excretory functions of the kidneys are not impaired.
12. Fundus - some narrowing of the arteries.
13. Neurologist consultation - functional nervous system disorder. Sample answers to therapy problem 6
1. Preliminary diagnosis: hypertension stage II.
2. Additional examination plan: ECG, echocardioscopy, general urine analysis, Zimnitsky urine analysis, ultrasound of the kidneys, ophthalmologist consultation, cardiac X-ray, neurologist consultation, general blood test, Rehberg test, blood test for urea, creatinine, cholesterol, beta-lyroproteins, prothrombin, radiorenography.
3. Differential diagnosis should be carried out with symptomatic arterial hypertension:
renal - chronic glomerulonephritis, chronic pyelonephritis, polycystic disease, renovascular hypertension; - endocrine - pheochromocytoma, primary hyperaldosteronism, disease and syndrome
Itsenko-Cushing, thyrotoxicosis, acromegaly;
- hemodynamic - aortic valve insufficiency, aortic atherosclerosis, congestive hypertension; - neurogenic - tumors or injuries of the brain or spinal cord, encephalitis, hemorrhage;

with hypertension due to blood thickening in erythremia;
with exogenous hypertension due to lead intoxication, intake of glucocorticoids, contraceptives.
Therapy problem with answer 7
During her first birth, M., a 35-year-old cook, experienced severe chest pain, severe shortness of breath of a mixed nature, and lost consciousness.
Objectively: the patient's general condition is severe, consciousness is absent, and there is bluish-purple cyanosis of the upper body. Respiration is shallow, up to 50 breaths per minute. On auscultation, the breath sounds in the right side of the chest are significantly weakened, with isolated dry wheezing and soft, fine-bubbling rales in the lower chest. The jugular veins are distended, and the pulse is absent.

Threadlike 100 beats per minute. Blood pressure - 90/40 mmHg. Heart sounds are muffled, splitting of the second sound over the pulmonary artery. The abdomen is enlarged, palpation is not possible. Assignment for the therapy problem
1. Establish a preliminary diagnosis.
2. Make a plan for additional examination.
3. Conduct differential diagnostics.
4. Determine the treatment tactics.
Results of additional examination for therapy task 7:
Blood test: erythrocytes - 4.5x1012/l, Hb - 135 g/l, ESR - 15 mm/hour, leukocytes - 9.5x1012/l, p - 2%, s - 65%, e - 2%, m - 10%, l - 21%, protein - 80 g/l, albumins - 42%, alpha-1 - 8%, alpha-2 - 12%, beta - 18%, gamma - 20%, PTI - 105%, clotting time - 4 min., LDH - 4.2 μmol/h/l, LDH-1 - 25%, LDH-2 - 26%, LDH-3 - 30%, LDH-4 - 8%, LDH-5 - 11%.
1. Urine analysis: straw-yellow, acidic reaction, specific gravity - 1016, leukocytes - 1-2 in the field of view, epithelial cells - 1-2 in the field of view.
2. ECG - attached.
3. Chest X-ray - attached. Sample answers to
problem 7 on therapy
1. Preliminary diagnosis: pulmonary embolism.
2. Complete blood count, determination of CPK and LDH isoenzyme activity, determination of the blood coagulation and anticoagulation systems, chest X-ray, electrocardiography.
3. It is necessary to conduct differential diagnostics with: an attack of angina pectoris, myocardial infarction, dissecting aortic aneurysm, pleurisy, pneumothorax, lobar pneumonia.
4. Shock management, heart failure treatment. Pain relief. Reduction of pulmonary artery pressure. Fibrinolytic and anticoagulant therapy.
Therapy problem with answer 8
A 50-year-old patient, a worker at a flour factory, complains of a paroxysmal, hacking, painful cough with difficult-to-separate, viscous, mucous sputum (up to 30 ml per day), which intensifies in the morning, when inhaling strong odors, when leaving a warm room for the cold, and also in damp weather; expiratory dyspnea with moderate physical exertion; an increase in body temperature to subfebrile numbers, weakness, malaise.
Medical history: He has been smoking for 25 years. Around age 10, he began to notice a cough with sputum production in the mornings. He has become increasingly susceptible to colds, accompanied by a persistent cough. He has also suffered from acute pneumonia several times.
Objectively: body temperature is 37.30C, skin is moist, mild diffuse cyanosis. The anteroposterior diameter of the chest is increased, supra- and infraclavicular fossae are smoothed out. The chest is rigid. Vocal fremitus is weakened. The lower edges of the lungs are lowered. Lung excursion is reduced, a box-like sound alternates with areas of dullness on percussion. Respiratory rate is 20. Auscultation: breathing is harsh in the upper parts of the lungs, weakened over the remaining parts, dry whistling scattered rales are heard, and constant crackling rales are heard lower on both sides. Heart sounds are muffled, the rhythm is regular, heart rate is 90 per minute. BP on both arms is 120/80 mmHg. The abdomen is soft, painless throughout. Abdominal organs are unremarkable.
Assignment for the therapy problem
1. Establish a preliminary diagnosis.
2. Outline a plan for further examination of the patient.
3. Conduct differential diagnostics.
4. Determine the treatment tactics.
Results of additional examination for therapy task 8:

1. Complete blood count: red blood cell count - 5.0x1012/l, hepatitis B - 150 g/l, c.p. - 1.0; platelets - 240x109/l, leukocytes - 10.0x109/l, pal. - 7%, segmental - 53%, lymph. - 32%, mono. - 8%, ESR - 10 mm/hour.
2. General sputum analysis: light, viscous, odorless, flat epithelium - 4-6 in the field of view, leukocytes - 15-20 in the field of view, atypical cells and BC not detected, Gr. + coccal flora.
3. Bacteriological analysis of sputum revealed pneumococcal flora sensitive to benzylpenicillin, cephalosporins, erythromycin, and lincomycin.
4. Serological testing revealed an increased titer of antibodies to mycoplasma infection.
5. X-ray - attached.
6. General urine analysis: light yellow, reaction - acidic, transparency - complete, specific gravity - 1020, protein - 0.033 g/l, no sugar, leukocytes - 3-5 in the field of view, red blood cells - no, no cylinders.
7. Blood test for DFA: 260 units, CRP - moderately positive.
8. ECG - attached.
9. Bronchoscopy - signs of catarrhal bronchitis.
10. Study of external respiratory function: signs of obstructive respiratory failure.
Sample answers to problem 8 on therapy
1. Preliminary diagnosis: chronic obstructive bronchitis in the acute stage. Pulmonary emphysema. Diffuse pneumosclerosis. DN stage II.
2. Additional testing plan: general sputum analysis, including sputum culture for bacterial cell count and atypical cells, sputum analysis to determine microflora and its sensitivity to antibiotics, chest X-ray, ECG, urinalysis, serum analysis for DPA, CRP, total protein and protein fractions, sialic acids, and seromucoid. Serological testing to determine the type of antibodies to pathogen antibodies, bronchoscopy, bronchography, and pulmonary function testing.
3. Differential diagnosis should be carried out with chronic pneumonia, pulmonary tuberculosis, lung cancer, bronchial asthma, bronchiectasis, sarcoidosis, and pulmonary leukemia.
4. Treatment principles:
Antibacterial therapy - antibiotics, long-acting sulfonamides and combined sulfonamides, antifungal antibiotics; Bronchodilator and expectorant therapy - euphyllin, bromhexine, thermopsis, potassium iodide; Detoxification therapy - hemodez, rheopoligmonin, plasma

5. Immunocorrective therapy - dibazol, methyluracil, pentoxyl, thymogen, bronchomunal
6. Symptomatic therapy - in the development of heart failure - cardiac glycosides, diuretics, correction of metabolic acidosis, etc. Physiotherapy - imomecin, electro-UHF, inductothermy, exercise therapy. Therapy task with answer 9 In patient G., 59 years old, a turner, with the expansion of the motor regime in
In the postoperative period following surgery on the lumbar spine, chest pain developed, aggravated by breathing, along with severe dyspnea of a mixed nature with a predominantly inspiratory component. Objectively: the patient's general condition is severe, he is agitated, and tossing and turning in bed. The skin and visible mucous membranes are sharply cyanotic. Breathing is shallow, and dyspnea occurs up to 40 breaths per minute.
1 minute. On auscultation, the breath sounds on the right are weakened, a large number of moist, silent wheezes and scattered dry wheezes are heard. The jugular veins are distended, pulsation is detected in the 3rd intercostal space on the left. The pulse is rhythmic, weak. Blood pressure is 110/70 mmHg. The right border of the heart is dilated. Auscultation: heart sounds are muffled, rhythmic, an accentuated 2nd tone over the pulmonary artery. Systolic murmur is heard over all points of auscultation. The abdomen is soft, tender in the epigastric region. The liver protrudes 2 cm from under the edge of the costal arch, the edge is dense, moderately painful.

Assignment for the therapy problem
1. Establish a preliminary diagnosis.
2. Make a plan for additional examinations.
3. Conduct differential diagnostics.
4. Determine the treatment tactics.
Results of additional examination for therapy task 9:
1. Blood test: er. - 4.5x1012/l, Hb - 135 g/l, ESR - 15 mm/hour, leukocytes - 9.5x1012/l, p - 2%, s - 65%, e - 2%, m - 10%, l - 21%, protein - 80 g/l, albumins - 42%, alpha-1 - 8%, alpha-2 - 12%, beta - 18%, gamma - 20%, PTI - 105%, clotting time - 4 min., LDH - 4.2 μmol/h/l, LDH-1 - 25%, LDH-2 - 26%, LDH-3 - 30%, LDH-4 - 8%, LDH-5 - 11%.
2. Urine analysis: straw-yellow, acidic reaction, specific gravity - 1016, leukocytes - 1-2 in the field of view, epithelial cells - 1-2 in the field of view.
3. ECG - attached.
4. Chest X-ray - attached.
Sample answers to problem 9 on therapy
1. Preliminary diagnosis: pulmonary embolism.
2. Complete blood count, determination of CPK and LDH isoenzyme activity, determination of the blood coagulation and anticoagulation systems, chest X-ray, electrocardiography.
3. It is necessary to conduct differential diagnostics with: an attack of angina pectoris, myocardial infarction, dissecting aortic aneurysm, pleurisy, pneumothorax, lobar pneumonia.
Pain relief. Reduction of pulmonary artery pressure. Treatment of heart failure and shock. Fibrinolytic and anticoagulant therapy.

**Situational tasks in hospital therapy (11-12 semesters) Task No. 1**

Patient R., 45 years old, consulted a doctor complaining of a feeling of heaviness and fullness in the abdomen, occurring 40-50 minutes after eating, and nausea.

B She has suffered from chronic gastritis for 20 years, with flare-ups once or twice a year. During flare-ups, she usually takes proton pump inhibitors and antacids. She has not received eradication therapy. The current worsening occurred over the course of two weeks due to dietary inaccuracies. She took Almagel on her own whenever discomfort arose.

On examination: the patient's condition is satisfactory. Height 166 cm, weight 64 kg. The skin is clean, normal color. In the lungs, vesicular breathing is present, no wheezing. Heart sounds are clear, rhythmic. Heart rate is 70 beats per minute, blood pressure is 120/70 mmHg. The abdomen is soft, painful in the epigastrium and pyloroduodenal zone. Symptoms of cholecystitis are negative. Liver

Unchanged. No dysuria. Lumbar tapping test is negative. Formed stool once daily, no abnormalities.

Fibrogastroscopy revealed a freely passable esophagus, with normal mucosa. The cardia is completely closed. The gastric mucosa is hyperemic, with areas of atrophy.

в In the antral region, the folds are smoothed out and easily straightened with air. The pylorus is patent. The mucosa of the duodenal bulb and the retrobulbar region are unchanged. A biopsy was taken from the antral region of the stomach: the rapid urease test is positive. Histological examination of the biopsy revealed gastric mucosa with atrophy and chronic polymorphic cell infiltration.

**Questions:**

1. Suggest the most likely diagnosis.
2. Please justify your diagnosis.
3. Make a plan for additional examination of the patient.
4. Prescribe medication and justify your choice.

**Problem #2**

A 75-year-old woman consulted a doctor on May 21, 2016, complaining of palpitations.
The patient's medical history revealed that 3 months ago the patient suffered an acute inferior myocardial infarction with ST-segment elevation; coronary angiography was performed, which revealed 85% circumflex stenosis (LAD stenosis 45%, OC 45%), and therefore transballoon angioplasty and RCA stenting with a drug-eluting stent were performed.
B The patient had been diagnosed with persistent atrial fibrillation for three years. She had a history of two unsuccessful attempts to restore rhythm using electrical impulse therapy.

On examination: the patient is in moderate condition. The skin is clean and normal in color. Vesicular breathing sounds are present in the lungs, with no wheezing. Heart sounds are muffled and arrhythmic. Heart rate is

140 beats per minute, pulse – 110 beats per minute. BP – 110/80 mmHg. The abdomen is soft, painless on palpation in all areas. The liver and spleen are not enlarged. There is no dysuria. The percussion symptom in the lumbar region is negative.

B tests: total cholesterol – 4.8 mmol/l, TG – 2.5 mmol/l, HDL-C – 1.1 mmol/l; LDL-C – 3.2 mmol/l.

**Questions:**

1. Formulate the patient's diagnosis.
2. Please justify your diagnosis.
3. Prepare and justify a plan for additional examination of the patient.
4. List the drug groups and the recommended treatment periods for the patient. Justify their use.
5. Given the patient's complaints of palpitations despite taking the medications listed in the previous question, what is the next treatment strategy? Justify your choice.

**Problem #3**

A 24-year-old woman consulted a doctor complaining of weakness, fever up to 39.2°C, nagging pain in the lumbar region, and frequent, painful urination in small amounts.
From the anamnesis it is known that she considers herself ill since the age of 14, when she first noticed the appearance of the above complaints, acute pyelonephritis was diagnosed and treatment was carried out.
B Over the next 2 years, she was hospitalized repeatedly with similar complaints and diagnosed with chronic pyelonephritis. At 16, the patient was offered

spa treatment, which yielded positive results.

The condition worsened about 2 weeks ago, when after hypothermia, chills appeared, a rise in body temperature to 39°C, severe paroxysmal pain in the lumbar region, which radiated to the lower abdomen, accompanied by frequent painful urination.

On examination: the patient's condition is relatively satisfactory. Height is 175 cm. Weight is 64 kg. The skin is clean and of normal color. There is no edema. In the lungs, breathing is vesicular, without wheezing. Heart sounds are muffled and rhythmic. Heart rate is 70 beats per minute, blood pressure is 120/80 mmHg. The abdomen is soft, painless on palpation in all areas. The liver and spleen are not enlarged. The percussion symptom over the lumbar region is positive on the right. Frequent painful urination.

B tests: leukocytes 8.9x10 $^{9}$ /l, ESR 36 mm/hour, urea 4.3 mmol/l, creatinine 72.6 μmol/l, total protein 46 g/l. SCF 92 ml/min/1.73 m $^{2}$ .

General urine analysis: specific gravity – 1009, protein – 0.5, leukocytes – outside the field of vision, mucus, squamous epithelial cells.

Panoramic and excretory urography: the kidneys are normally positioned, no stone shadows are detected. There is mushrooming of the calyces, the cervix is elongated, and the renal pelvis is atonic. The kidney contours are irregular, and contrast uptake is decreased on the right. Urodynamics are normal.

**Questions:**

1. Suggest the most likely diagnosis.
2. Please justify your diagnosis.
3. Draw up and justify a plan for additional examination of the patient.
4. Conduct a differential diagnosis.

Suggest and justify further treatment tactics

**Problem #4**

A 48-year-old man consulted a doctor complaining of general weakness, increased fatigue, dull aching pain in the right hypochondrium, nausea, belching, loss of appetite, and periodic itching of the skin.

The patient's medical history revealed a history of alcohol consumption (over 60 grams of ethanol per day) for 13 years. Two years ago, he developed aching pain in the right hypochondrium, general weakness, nausea, and intermittent itching, which intensified in the evening. He did not seek medical attention. He periodically took baralgin, antihistamines, and enzyme preparations (Creon 25,000 units twice daily); these medications were ineffective. The current exacerbation occurred over the past three weeks, when, after drinking alcohol, he developed weakness, almost constant dull pain in the right hypochondrium, nausea, belching, and loss of appetite. He has not had any surgeries or blood transfusions.

On examination: the patient's condition is satisfactory; height 178 cm, weight 79 kg, BMI 24.9 kg/m2 · The skin is icteric, the sclera is icteric; telangiectasias are detected on

chest, back, shoulders, "palmar" erythema. In the lungs, vesicular breathing is present, no wheezing. Respiratory rate is 16 breaths per minute. Heart sounds are muffled, the rhythm is regular. Heart rate is 70 breaths per minute; blood pressure is 130/80 mmHg. The tongue is moist, with a white coating at the base. The abdomen is soft, moderately tender on superficial palpation in the right hypochondrium. Liver dimensions according to Kurlov: 9 (+2) × 8 × 7 cm; on deep palpation, the liver is firm and moderately tender. The spleen is not palpable. There is no dysuria. The percussion test over the lumbar region is negative.

Research results:

Complete blood count: erythrocytes – $4.4\times10^{12}$/l; leukocytes – $6.3\times10^{9}$ /l; segmented neutrophils – 64%; band neutrophils – 1%; lymphocytes – 28%; monocytes – 4%; eosinophils – 2%; basophils – 1%; Hb – 148 g/l; platelets – $217\times10^{9}$ /l; ESR – 18 mm/h.

Blood biochemistry: total bilirubin - 25 μmol/l; indirect bilirubin - 22.5 μmol/l; direct bilirubin - 2.5 μmol/l; ALT - 203 U/l; AST - 214 U/l; GGT - 89 U/l; ALP - 298 U/l; TG - 3.9 mmol/l; LDL-C - 2.8 mmol/l; HDL-C - 1.5 mmol/l; glucose - 5.0 mmol/l; creatinine - 62 μmol/l; urea - 2.8 mmol/l; albumin - 43 g/l; total protein - 71.5 g/l; alpha-1-globulins - 3.2 g/l; alpha-2-globulins – 5.7 g/l; beta-globulins – 7.1 g/l; γ-globulins – 12.5 g/l; alpha-fetoprotein – 3.1 U/l; ferritin – 54 mcg/l; transferrin – 2.6 g/l; potassium– 3.7 mmol/l; Na– 137.5 mmol/l; iron – 21.5 μmol/l; amylase – 4 U/l; cholesterol – 5.3 mmol/l. PTI – 84%.

Enzyme immunoassay (blood test for hepatitis B and C markers): HBsAg (-); anti-HBs (-); anti-HBcIgG (-); HBeAg (-); anti-HBe (-); anti-HBcIgM (-); anti-HCV – negative. Liver elastography: stage F2 (according to the METAVIR scale), moderate fibrosis. Fecal occult blood test – negative. Chest X-ray: no pathological changes. ECG – no pathological changes. General urine analysis: within normal limits.

**Questions:**

1. Suggest the most likely diagnosis.
2. Please justify your diagnosis.
3. Draw up and justify a plan for additional examination of the patient.
4. Justify the appointment of drug and non-drug treatment for this patient.
5. When visiting a doctor one month after the treatment, the patient noted an improvement in his health: weakness, increased fatigue, dull pain in the right hypochondrium, nausea, and belching had disappeared. On objective examination: the skin is clean, of normal color. Liver size according to Kurlov: 9 × 8 × 7 cm. The spleen is not enlarged. Complete blood count is within normal limits. Blood biochemistry: total bilirubin - 18 μmol/l; indirect bilirubin - 16 μmol/l; direct bilirubin - 2.0 μmol/l; ALT - 40 U/l, AST - 38 U/l, GGT - 26 U/l; ALP - 125 U/l; TG - 2.6 mmol/l. Ultrasound of the abdominal organs revealed diffuse dystrophic changes in the liver parenchyma. What is your further treatment plan? Justify your choice.

**Problem #5**

Patient R., 35, presented to the clinic complaining of aching pain in the lower abdomen, predominantly on the left side, and loose stools up to 5-7 times a day. The stools often contained mucus and blood. She also reported severe weakness, decreased ability to work, loss of appetite, a fever of up to 37.5°C, pain in the joints of her arms, and a 5 kg weight loss in recent weeks.

Objectively: the patient is in a moderate condition. The skin and mucous membranes are pale. Peripheral lymph nodes are not palpable. There is erythema nodosum on the medial surface of the left forearm - 1.5 × 2 cm. The joints are unchanged, function is preserved. From the side of the lungs - without any peculiarities. Pulse is 96 per minute, rhythmic, blood pressure is 100/70 mm Hg. Heart rates are within normal limits. Heart sounds are sonorous. The tongue is coated at the root with a dirty coating, dryish. The abdomen is distended, sensitive on palpation.
в Left lower quadrant. Rumbling upon palpation in the sigmoid colon area. The liver and spleen are not enlarged.

Blood test: erythrocytes - $3.4\times10^{12}$ /l, hemoglobin - 85 g/l, leukocytes - $10.0\times10^{9}$ /l, ESR - 25 mm/hour. Urine analysis - normal.

X-ray examination: in the left sections of the large intestine (up to the splenic flexure) there is a loss of haustration, a decrease in the lumen and rigidity of the intestine, and an uneven pattern of the mucous membrane.

**Questions:**

1. Suggest the most likely diagnosis.
2. Please justify your diagnosis.
3. Make a plan for additional examination of the patient.
4. What diseases require differential diagnosis?
5. Determine the patient's treatment tactics.

**Appendix 3**

## PRACTICAL SKILLS

1. External examination.
2. Assessment of the patient's objective condition (palpation, percussion, auscultation).

### ANALYSIS

**GENERAL FAECAL ANALYSIS**
CONSISTENCY - mushy
FORM - unformed, liquid
SLIME - +
MICROSCOPIC EXAMINATION:
PLANT FIBER
UNDIGESTED - in significant quantities
DIGESTED MUSCLE FIBERS - found
SOAPS - none
STARCH - absent
LEUCOCYTES – in large quantities
ERYTHROCYTES - fresh in large quantities
EOSINOPHILS – in large quantities
EPITHELIUM - ++
PROTOZOA - not found
I/WORMS - not found
Occult Blood Reaction +
REACTION TO STERCOBILIN +

**GENERAL FAECAL ANALYSIS**
CONSISTENCY – ointment-like
QUANTITY – polyphecalia (more than 1 kg)
FORM - unformed
COLOR - gray/yellow
SMELL - foul
REACTION - alkaline
MICROSCOPIC EXAMINATION:
UNDIGESTED PLANT FIBER - ++
MUSCLE FIBERS - +++
CONNECTIVE TISSUE ++
FATTY ACIDS -++
SOAPS- +
STARCH-+++
IODOPHILIC FLORA: ++
LEUCOCYTES – 2-3 in pz.
ERYTHROCYTES - 0-1 in pz
PROTOZOA - not found
I/WORMS - not found

**<u>General urine analysis</u>**

QUANTITY - 150 ml
COLOR - meat slops
REACTION - acidic
Specific weight - 1020
GLUCOSE - absent
PROTEIN - 7200 mg/l
EPITHELIUM PL.2-3 in pz
LEUCOCYTES – 5-6-5 in pz
ERYTHROCYTES – a large number of CYLINDERS:
HYALINE -3-4 in pz
GRAINY - 1-2 in pz
BACTERIA - no
MUCUS - absent
SALTS - oxalates
URINE on BK +

**General urine analysis**

QUANTITY - 100 ml
COLOR – straw/yellow
TRANSPARENCY - complete
REACTION - acidic
Specific weight - 1026
GLUCOSE - absent
PROTEIN - 25000 mg/l
SQUAMOUS EPITHELIUM-2-3 in pz
LEUCOCYTES – 6-7 in pz
ERYTHROCYTES:
UNCHANGED -1-3-5 in pz
CHANGED -10-15 in pz
CYLINDERS:
HYALINE -2-3-4 in pz
GRAINY - 1-2 in pz
WAXY -1-2 in pz
BACTERIA - absent
SLIME- +
SALTS - absent

**Daily urinary protein excretion - 5620 mg/day,**
**DAILY DIURESIS – 780 ml**
**DAILY EXCRETION OF PROTEIN IN URINE 15620 mg/day,**
**DAILY DIURESIS – 1100 ml**
**DAILY EXCRETION OF PROTEIN WITH URINE 10500 mg/day, DAILY DIURESIS – 1300 ml**

**GENERAL ANALYSIS OF SPUTUM**
QUANTITY - 50 ml
CONSISTENCY: mucopurulent
COLOR – light/yellow
SQUAMOUS EPITHELIUM-2-3 in pz
LEUCOCYTES – 25-26-25 in pz
ERYTHROCYTES – no
EOSINOPHILS - no

ELASTIC FIBERS - no
BACTERIA- +

**PLEURAL FLUID**
QUANTITY - 50 ml
COLOR - light yellow
SPECIFIC GRAVITY - 1015
PROTEIN - 1.4 g/l
GLUCOSE – 4.38 mmol/l
Rivalta test - negative
SQUAMOUS EPITHELIUM-2-3 in pz
LEUCOCYTES – 2-3 in pz
ERYTHROCYTES – 1-2 in pz
EOSINOPHILS - no
ELASTIC FIBERS - no
AK - no, BK - no

**PLEURAL FLUID**

QUANTITY - 50 ml
COLOR - cloudy
SPECIFIC GRAVITY - 1017
PROTEIN - 6.4 g/l
GLUCOSE – 1.38 mmol/l
Rivalta test is positive
SQUAM EPITHELIUM-6-10 in pz
LEUCOCYTES – 5-7 in pz
ERYTHROCYTES – 10-12 per 100mg
EOSINOPHILS - no
ELASTIC FIBERS - no
AK – detected, BC – not
TOTAL CHOLESTEROL - 8.0 mmol/L
LDL CHOLESTEROL - 4.2 mmol/l. **- II a type**
TRIGLYCERIDES **-** 0.9 mmol/l
TOTAL CHOLESTEROL - 7.2 mmol/l
LDL CHOLESTEROL - 4.4 mmol/l - **II and the type**
TRIGLYCERIDES **-** 1.3 mmol/l
TOTAL CHOLESTEROL - 8.3 mmol/L
LDL CHOLESTEROL - 4.2 mmol/l **- II b type**
TRIGLYCERIDES - 3.3 mmol/l
TOTAL CHOLESTEROL - 7.8 mmol/l
LDL CHOLESTEROL - 4.2 mmol/l **- II b type**
TRIGLYCERIDES **-** 3.3 mmol/l

**BLOOD TEST 6B**
Hb-62 g/l,
erythrocytes - 2.2x10 $^{12}$ /l,
CPU-0.84
Leukocytes - 1.9x10 $^{9}$ /l,
Stick/I-2%,
Segmento/I-36%,
Lymphocytes - 62%,
Monocytes - no,
Eosinophils - no.
Platelets - 24.0x10 $^{9}$ /l,

ESR - 67 mm/h.
In the trephine biopsy: replacement of bone marrow with fatty tissue.

**BLOOD TEST 6B**
Erythrocytes - 2.4x10 $^{12}$ /l,
Hb-65 g/l,
CPU-0.81
Leukocytes - 3.2x10 $^{9}$ /l,
Stick/I - 6%,
Segmento/I - 73%,
Lymphocytes - 15%,
Monocytes - 6%,
Eosinophils – no.
Platelets - 136.0x10 $^{9}$ /l,
Reticulocytes - 7%
ESR - 19 mm/h
Total bilirubin - 61 μmol/l, direct fraction - 14 μmol/l, indirect - 47 μmol/l.
Bone marrow: cellular. Erythroid cell irritation is noted—48%.

Liver tests:

| | |
|---|---|
| Total protein – 76.4 g/l | Total bilirubin - 67.5 μmol/l |
| Albumins – 58.2% | direct - 57.3 μmol/l |
| Globulins – 41.8% | |
| indirect - 10.2 μmol/l | |
| Alpha1 - 5.2% | thymol test - 1.5 units |
| Alpha2 - 6.7% | sublimate test - 1.9 ml |
| Betta-10.2 | formol test - negative |
| Gamma-9.5% | Alkaline phosphatase - 4.2 μmol/L |
| Coeff. A/G-1, | |

Liver tests:

| | |
|---|---|
| Total protein - 75.2 g/l | Bilirubin: |
| Albumins - 65.0% | total - 40.2 μmol/l |
| Globulins -35.0% | direct-undetermined |
| Alpha1 - 5.6% | thymol test - 1.5 units |
| Alpha2 - 6.8% | sublimate test - 1.8 ml |
| Beta-10.5% | formol test - negative |
| Gamma-19% | |
| Coefficient A/G - 1.5 | |

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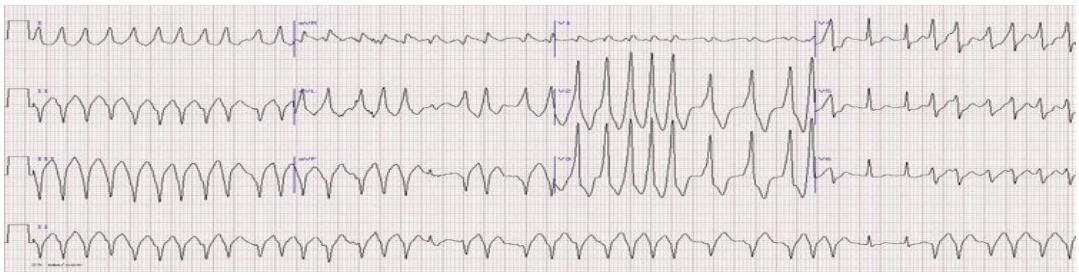
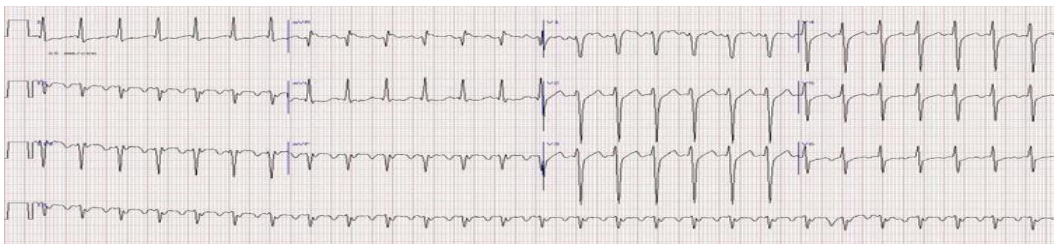
Age 32 years. Aorta is unchanged (d-3.0 cm). Aortic valve is unchanged , opening is 1.8 cm. Systolic pressure gradient is 5.0 mm Hg. Degree of regurgitation is none. Mitral valve - cusps are thickened. Diastolic pressure gradient is 8 mm Hg. No regurgitation. Tricuspid valve - cusps are thickened, mobility is preserved. Degree of regurgitation is (+). Pulmonary artery is not dilated. Average PAP is 24 mm Hg. Left atrium is 4.0 cm. Left ventricle EDS is 5.0 cm. ESR is 3.4 cm. EF is 69%. The thickness of the left ventricular wall is 1.3 cm. The thickness of the interventricular septum is 1.5 cm. The right ventricle is 2.2 cm. The pericardial septum is 0.4 cm. The right atrium is not dilated. The interatrial septum is unchanged. The pericardium is normal. No disturbances of local LV contractility were detected.

**Appendix 4**

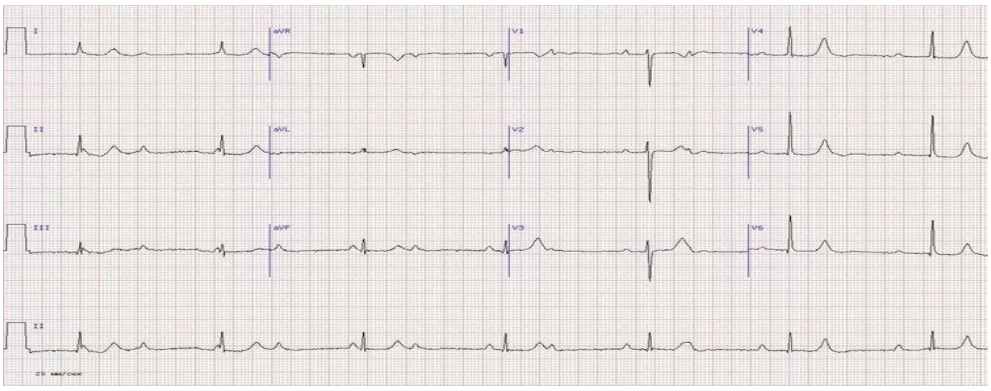
ECG



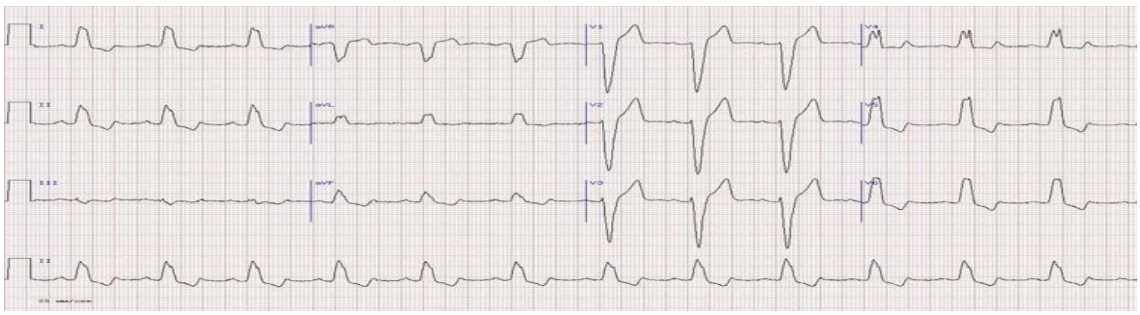
Paroxysmal ventricular tachycardia



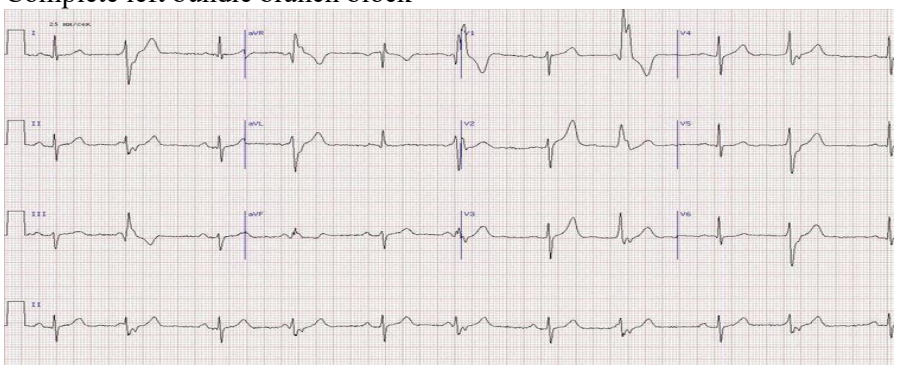
Paroxysmal supraventricular tachycardia



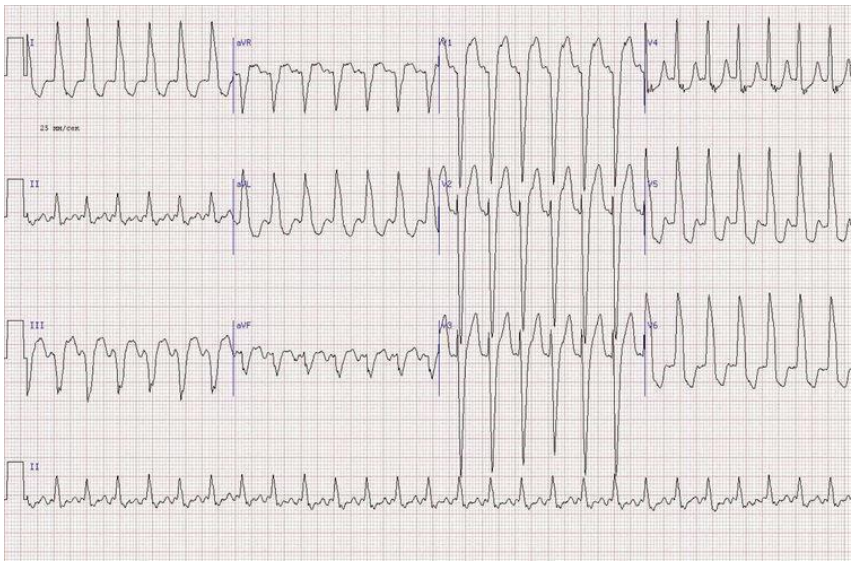
Complete AV block proximal type



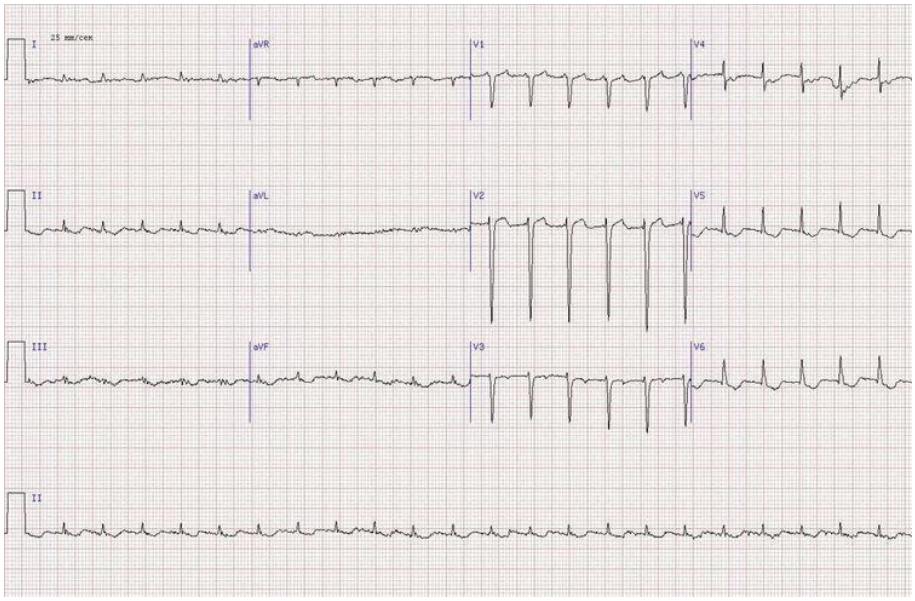
Complete left bundle branch block



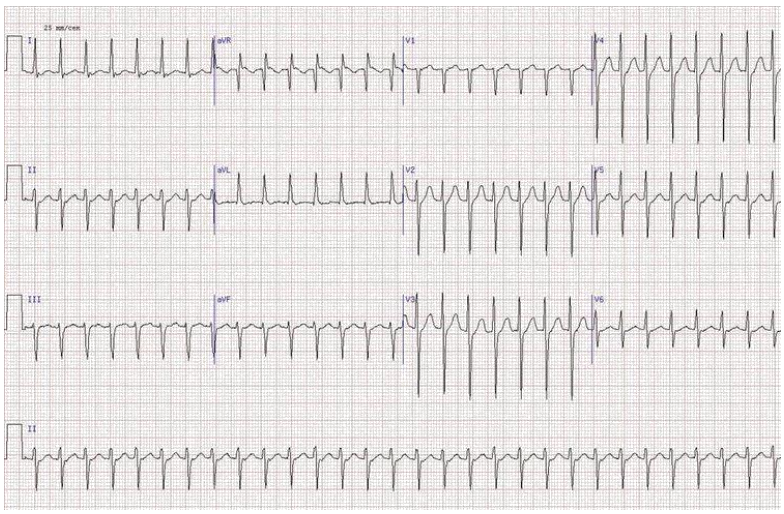
Sinus rhythm, regular, heart rate - 60 beats per minute . EOS to the left. Ventricular extrasystole of the bigeminy type.



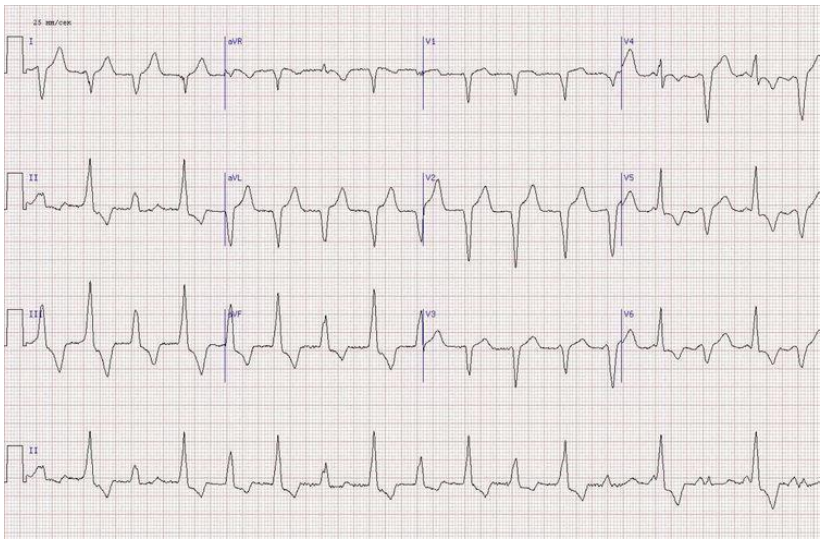

Paroxysmal ventricular tachycardia, LVH



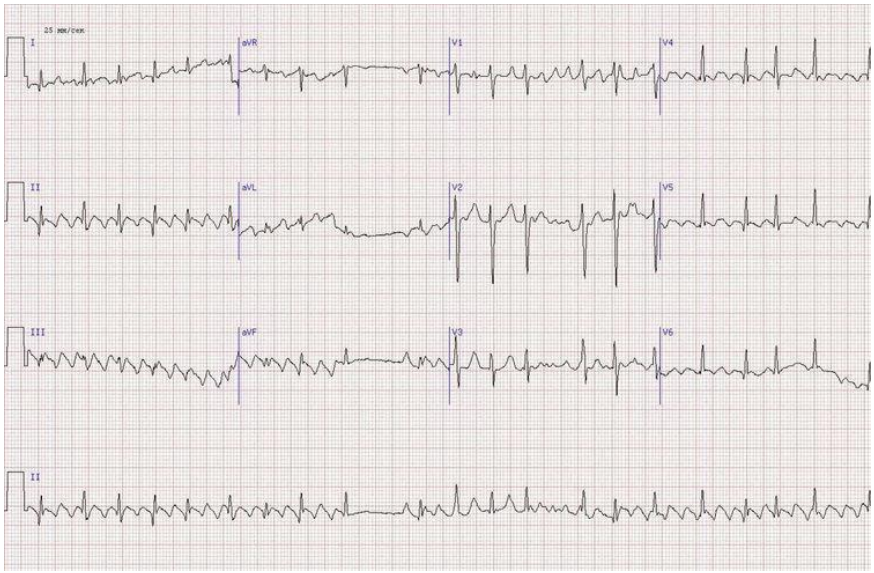

Paroxysmal supraventricular tachycardia



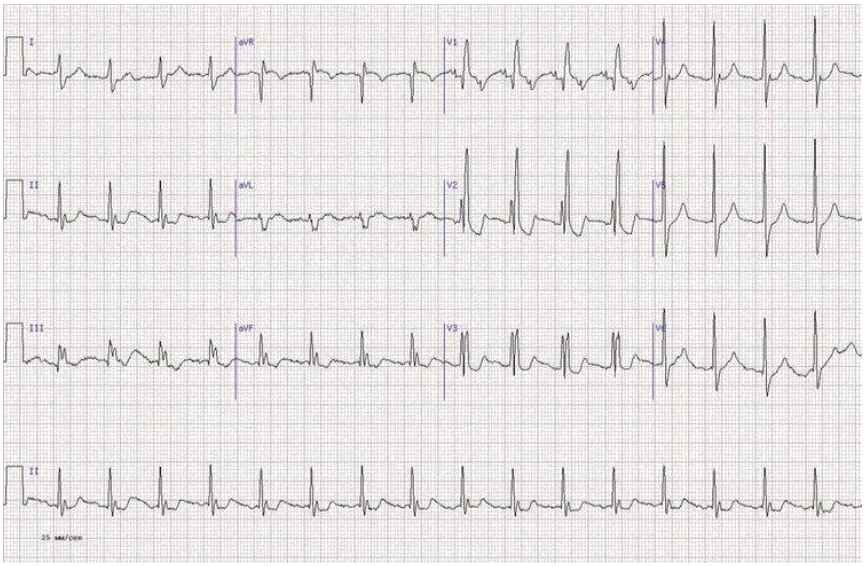

Paroxysmal supraventricular tachycardia. LVH, RVH




Extrasystolic arrhythmia of the bigeminy type




Atrial flutter with abnormal conduction with A-V block




Complete right bundle branch block R-type RVH

**Appendix 6**

## Course Outline (Module) of the discipline
## Specialty "General Medicine"
## Course 4, semester 7, number of ZE – 2, reporting – credit

| the discipline modules according to the RPD | Control | Form of control | minimum credit | credit maximum | control schedule |
|---|---|---|---|---|---|
| **Module 1** | | | | | |
| Pulmonology | Current control | Oral interview. Practical diagnostic examination skills, attendance. Abstracts (reports or presentations) | 5 | 15 | 3/13 |
| | Border control | Test #1 (2 written questions, situational task, tests, ECG) | 15 | 20 | |
| **Module 2** | | | | | |
| Cardiology | Current control | Oral interview. Practical diagnostic examination skills, attendance. Abstracts (reports or presentations) | 5 | 15 | 8/18 |
| | Border control | Test #2 (2 written questions, situational task, tests, ECG) | 15 | 20 | |
| TOTAL for the semester | | | 40 | 70 | |
| Interim control (test) | | | 20 | 30 | |
| Semester ranking by discipline | | | 60 | 100 | |

## Course Outline (Module) of the discipline
## Specialty "General Medicine"

## Course 4, semester 8, number of ZE – 2, reporting – credit

| the discipline modules according to the RPD | Control | Form of control | minimum credit | credit maximum | control schedule |
|---|---|---|---|---|---|
| **Module 3** | | | | | |
| Rheumatology<br>Gastroenterology | Current control | Oral interview. Practical diagnostic examination skills, attendance. Abstracts (reports or presentations) | 5 | 15 | 27 |
| | Border control | Test #3 (2 written questions, situational task, tests, ECG) | 15 | 20 | |
| **Module 4** | | | | | |
| Nephrology<br>Hematology | Current control | Oral interview. Practical diagnostic examination skills, attendance. Abstracts (reports or presentations) | 5 | 15 | 31 |
| | Border control | Test #4 (2 written questions, situational task, tests, ECG) | 15 | 20 | |
| TOTAL for the semester | | | 40 | 70 | |
| Interim control (test) | | | 20 | 30 | |
| Semester ranking by discipline | | | 60 | 100 | |

## Course Outline (Module) of the discipline
**Specialty "General Medicine"**

**Course 5, semester 9, number of ZE – 3, reporting – credit**

| Name of the discipline modules according to the RPD | Control | Form of control | Minimum credit | Maximum score | Control schedule (week of semester) |
|---|---|---|---|---|---|
| **11th semester** | | | | | |
| **Module No. 1** | | | | | |
| **Pulmonology** | Current control | Oral survey, knowledge assessment, notes, practical skills in inpatient examination of patients, SRS, attendance. | **4** | **8** | **6** |
| | Rubezhny control | 2 written questions on differential diagnosis and differential therapy of nosologies, emergency conditions, situational task, ECG analysis. **KR No. 1** | **10** | **1 6** | |
| **Module #2** | | | | | |
| **Cardiology** | Current control | Oral survey, knowledge assessment, notes, practical skills in inpatient examination of patients, SRS, attendance. | **4** | **8** | **13** |
| | | | | | |
| | Rubezhny control | 2 written questions on differential diagnosis and differential therapy of nosologies, emergency conditions, situational task, ECG analysis. **KR No. 2** | **9** | **1 5** | |
| **Module #3** | | | | | |

| | | | | | |
|---|---|---|---|---|---|
| **Cardiology** | Current control | Oral survey, knowledge assessment, notes, practical skills in inpatient examination of patients, SRS, attendance. | **4** | **8** | **17** |
| | Rubezhny control | 2 written questions on differential diagnosis and differential therapy of nosologies, emergency conditions, situational task, ECG analysis.<br>**KR No. 3** | **9** | **15** | |
| **Total per semester** | | | **40** | **70** | |
| **Interim assessment** | | | **20** | **30** | |
| **Semester ranking by discipline** | | | **60** | **100** | |

## Course Outline (Module) of the discipline

**Specialty "General Medicine"**

**Course 5, semester 10 , number of ZE – 5 , reporting – exam**

| Name of the discipline modules according to the RPD | Control | Form of control | Minimum credit | Maximum score | Control schedule (week of semester) |
|---|---|---|---|---|---|
| **1st 2nd semester** | | | | | |
| **Module No. 4** | | | | | |
| **Rheumatology** | Current control | Oral survey, knowledge assessment, notes, practical skills of inpatient examination of a patient, SRS, attendance. | **3** | **5** | **2 6** |
| | Rubezhny control | 2 written questions on differential diagnosis and differential therapy of nosologies, emergency | **6** | **9** | |

| | | | | | |
|---|---|---|---|---|---|
| | | conditions, situational task, analysis, ECG.<br>**KR No. 4** | | | |
| **Module # 5** | | | | | |
| **Rheumatology** | Current control | Oral survey, knowledge assessment, notes, practical skills of inpatient examination of a patient, SRS, attendance. | **3** | **5** | **2 7** |
| | Rubezhny control | 2 written questions on differential diagnosis and differential therapy of nosologies, emergency conditions, situational task, ECG analysis.<br>**KR No. 5** | **6** | **9** | |
| **Module No. 6** | | | | | |
| **Gastroenterology** | Current control | Oral survey, knowledge assessment, notes, practical skills in inpatient examination of patients, SRS, attendance. | **3** | **5** | **3 1** |
| | Rubezhny control | 2 written questions on differential diagnosis and differential therapy of nosologies, emergency conditions, situational task, ECG analysis.<br>**KR No. 6** | **5** | **9** | |
| **Module #7** | | | | | |
| **Nephrology** | Current control | Oral survey, knowledge assessment, notes, practical skills in inpatient examination of patients, SRS, attendance. | **2** | **5** | **33** |

| | | | | | |
|---|---|---|---|---|---|
| | Rubezhny control | 2 written questions on differential diagnosis and differential therapy of nosologies, emergency conditions, situational task, ECG analysis.<br>**KR No. 7** | **5** | **9** | |
| **Module #8** | | | | | |
| **Endocrinology Hematology** | Current control | Oral survey, knowledge assessment, notes, practical skills of inpatient examination of a patient, SRS, attendance. | **2** | **5** | **38** |
| | Rubezhny control | 2 written questions on differential diagnosis and differential therapy of nosologies, emergency conditions, situational task, ECG analysis.<br>**KR No. 8** | **5** | **9** | |
| **Total per semester** | | | **40** | **70** | |
| **Interim control - exam** | | | **20** | **30** | |
| **Semester ranking by discipline** | | | **60** | **100** | |