MINISTRY OF SCIENCE AND HIGHER EDUCATION OF THE RUSSIAN FEDERATION
MINISTRY OF EDUCATION AND SCIENCE OF THE KYRGYZ REPUBLIC
INTERSTATE EDUCATIONAL ORGANIZATION OF HIGHER EDUCATION
KYRGYZ-RUSSIAN SLAVIC UNIVERSITY
named after the first President of the Russian Federation B.N. Yeltsin

Department of THERAPY-1 (Pediatrics and Dentistry)

ASSESSMENT TOOLS FUND

by discipline

"PROPAEDEUTICS OF INTERNAL DISEASES"

Higher education level:	SPECIALIST
Field of study:	Code 31.05.01. – RF, 560001 – KR | Name: General Medicine
Qualification:	Doctor
Total labor intensity:	10 credits (360 hours)
Course, semesters:	3rd year, 5–6 semesters
Form of study:	Full-time
Year of preparation:	2022
Duration of education:	6 years

The fund of assessment tools is intended to control the knowledge of students in the direction of training (specialty) General Medicine in the discipline "PROPAEDEUTICS OF INTERNAL DISEASES"

The fund of assessment tools was considered and approved at the meeting of the Department of Therapy-1 **(Pediatrics and Dentistry)**

Head of Department
Therapy-1 of Pediatrics and Dental specialties _ Suranova G.Zh.

Executors
Candidate of Medical Sciences, Associate Professor _ Suranova G.Zh.

1. COMPETENCIES OF THE STUDENT, FORMED AS A RESULT OF MASTERING THE DISCIPLINE

PC-6: Ability to determine the patient's main pathological conditions, symptoms, disease syndromes, nosological forms in accordance with ICD-10

Stage	To know	Be able to	Own	Types of assessment tools
Level 1	Methods of conducting research to identify the main pathological conditions, symptoms, disease syndromes, nosological forms	To comprehend the results of the study of the main nosological forms of diseases	Skills in identifying the main pathological conditions, symptoms, disease syndromes	Block A: Tests for knowledge of research methods
Level 2	Specifics of identifying various types of pathological conditions, symptoms, disease syndromes, nosological forms in accordance with ICD-10	Analyze various types of pathological conditions, symptoms, disease syndromes, nosological forms in accordance with the ICD	Methods of searching, identifying and systematizing the main pathological conditions, symptoms, syndromes of diseases	Block C: Situational tasks for the analysis of pathological conditions
Level 3	The main syndromes of damage to organs and systems and their specifics in differential diagnosis	To note the practical value in comparing specific pathological syndromes; to decipher the ECG of a healthy person and patients with rhythm/conduction disorders, myocardial hypertrophy, myocardial infarction	Skills of self-justification of combining various symptoms, syndromes into nosological forms in accordance with ICD-10; emergency care skills	Block C: Practice-oriented tasks; Unit D: Appraisal Questions

PC-5: Readiness to collect and analyze the patient's complaints, medical history, examination results, laboratory, instrumental, pathological, anatomical and other studies in order to recognize the condition or establish the presence or absence of the disease

Stage	To know	Be able to	Own	Types of assessment tools
Level 1	Methods of conducting research to identify the main pathological conditions, symptoms, disease syndromes, nosological forms	To comprehend the results of the study of the main nosological forms of diseases	Skills in identifying the main pathological conditions, symptoms, disease syndromes	Block A: Oral questions on the method of collecting anamnesis; Quizzes
Level 2	Specifics of identifying various types of pathological conditions, symptoms, disease syndromes, nosological forms in accordance with ICD-10	Analyze various types of pathological conditions, symptoms, disease syndromes, nosological forms in accordance with the ICD	Methods of searching, identifying and systematizing the main pathological conditions, symptoms, syndromes of diseases	Block C: Situational tasks for collecting anamnesis
Level 3	The main syndromes of damage to organs and systems and their specifics in the differential diagnosis of	To note the practical value in comparing specific pathological syndromes, symptoms of diseases	Skills of self-justification of combining various symptoms and syndromes into	Block C: Practice-oriented tasks; Unit D: Appraisal Questions

Stage	To know	Be able to	Own	Types of assessment tools
	various nosological forms in accordance with ICD-10		nosological forms in accordance with ICD-10	

OPK-6: Readiness to maintain medical records

Stage	To know	Be able to	Own	Types of assessment tools
Level 1	Methods of conducting research; regulatory documentation adopted in healthcare	Conduct a medical statistical analysis of the health indicators of the attached population	Work skills and methods of maintaining accounting and reporting documentation of various nature in medical institutions	Block A: Tests for knowledge of medical documentation
Level 2	Regulatory documentation adopted in healthcare, as well as documentation for assessing the quality and efficiency of medical organizations	Maintain medical records, including in electronic form	Skills in drawing up a medical history with the justification of a syndromic diagnosis	Block C: Situational tasks for filling out medical documentation
Level 3	The main types of medical documentation used in the examination and treatment of patients with diseases of internal organs	Draw up a medical history, write fragments and sections of the educational academic medical history	Skills in writing and defending an academic medical history of a therapeutic patient	Block C: Practice-oriented tasks; Unit D: Appraisal Questions

2. RESULTS OF MASTERING THE DISCIPLINE

2.1. Know:

– Anatomical, physiological, age and sexual features of the functioning of organs and systems of a healthy and sick person
– Causes and genesis of the main pathological processes in the body, mechanisms of their development
– The main clinical symptoms and syndromes in diseases of internal organs, the mechanism of their occurrence
– The essence and methodology of the most common methods of laboratory and instrumental examination of patients
– Normal indicators of laboratory and instrumental examination methods
– Symptomatology of some urgent conditions (syndromes) that are threatening or incompatible with life
– Principles of emergency care for some urgent conditions (syndromes)

2.2. Be able to:

– Interview the patient and/or his relatives and obtain complete information about the disease
– Conduct a physical examination of the patient (examination, palpation, auscultation, BP measurement, determination of the properties of the arterial pulse)
– Identify objective signs of pathological syndrome
– Independently identify the main clinical pathological syndromes and substantiate them
– Draw up a plan for laboratory and instrumental examination of the patient
– Interpret the results of laboratory and instrumental methods of examining the patient
– Evaluate the results of a complete analysis of blood, urine, sputum, feces
– Evaluate the results of biochemical blood tests
– Decode the spirogram
– Decipher the ECG of a healthy person and patients with rhythm/conduction disorders, myocardial hypertrophy, acute myocardial infarction
– Present the results of a complete examination in the form of a syndromic diagnosis
– Draw up a brief (fragment) educational medical history
– Provide emergency care for some urgent conditions (syndromes)
– Carry out resuscitation measures in cases of clinical death

2.3. Own:

– Collect complaints and anamnesis from the patient
– Conduct an objective examination of the patient
– Measure height, weight and calculate body mass index
– Draw up a plan for laboratory and instrumental examination of the patient
– Provide emergency care for some urgent conditions (syndromes)
– Carry out resuscitation measures in cases of clinical death

3. STRUCTURE OF ASSESSMENT TOOLS BLOCKS

Block	Table of Contents	Competencies	Semester
Block A	Test tasks for knowledge of research methods, etiology, pathogenesis, symptomatology, diagnostic methods, ICD-10, medical documentation; oral questioning on the methods of collecting anamnesis and examination	PK-6 (U1–U2), PK-5 (U1–U2), OPK-6 (U1–U2)	5, 6
Block B	Situational tasks for collecting anamnesis, analyzing the clinical picture, interpreting tests, filling out documentation; Abstracts	PK-6 (U2–U3), PK-5 (U2–U3), OPK-6 (U2–U3)	5, 6
Block C	Practice-oriented tasks: simulation scenarios, examination of the patient with diagnosis, business games, writing and defending a fragment of the medical history	PK-6 (U3), PK-5 (U3), OPK-6 (U3)	6
Block D	Certification issues: complex patient management, differential diagnosis, syndromology, interpretation of ECG, tests; Practical skills	PK-6 (U3), PK-5 (U3), OPK-6 (U3)	6 (exam)

4. DISTRIBUTION BY SEMESTERS

Semester	Type of control	Blocks used	Competencies
5 (3.1)	Credit	Block A, Block B (partial)	PK-6 (U1–U2), PK-5 (U1–U2), OPK-6 (U1–U2)
6 (3.2)	Exam	Block A (Final), Block B, Block C, Block D	All competencies of all levels, including Level 3

5. TECHNOLOGICAL MAP OF THE DISCIPLINE

Semester 5 (Credit)

Module	Name	Control	Form of control	Min	Max	Week
Module 1	RC No1: Introduction to Internal Diseases. Propaedeutics. General and detailed inspection	Current	Frontal questioning, testing, practical skills, attendance	2	4	4
		Rubizhny	Oral/written questioning, situational task	6	10	
Module 2	RC No2: Lung syndromes. Subjective and objective research methods	Current	Frontal questioning, testing, practical skills, attendance	2	4	7
		Rubizhny	Oral/written questioning, situational task	6	10	
Module 3	RC No3: Lung syndromes. Subjective and objective research methods (continued)	Current	Frontal questioning, testing, practical skills, attendance	2	4	10
		Rubizhny	Oral/written questioning, situational task, interpretation of the PVD	6	10	
Module 4	RC No4: Cardiovascular syndromes. Subjective and objective research methods	Current	Frontal questioning, testing, practical skills, attendance	2	4	14
		Rubizhny	Oral/written questioning, situational task, ECG interpretation	6	10	
Module 5	RC No5: Cardiovascular syndromes. Protection of medical history	Current	Frontal questioning, testing, practical skills, attendance	2	4	16
		Rubizhny	Oral/written questioning, defense of a fragment of the medical history	6	10	
TOTAL per semester					40	70
Intermediate control (Pass)					20	30
Semester Ranking					60	100

Semester 6 (Exam)

Module	Name	Control	Form of control	Min	Max	Week
Module 1	RK No6: Gastrointestinal syndromes. Subjective and objective research methods	Current	Frontal questioning, testing, practical skills, attendance	2	4	5
		Rubizhny	Oral/written questioning, situational task	6	10	
Module 2	RC No7: MPS syndromes. Subjective and objective research methods	Current	Frontal questioning, testing, practical skills, attendance	2	4	8
		Rubizhny	Oral/written questioning, situational task	6	10	
Module 3	RC No8: Hematopoietic System Syndromes	Current	Frontal questioning, testing, practical skills, attendance	2	4	12
		Rubizhny	Oral/written questioning, situational task	6	10	
Module 4	RC No9: Syndromes in endocrinology. Subjective and objective research methods	Current	Frontal questioning, testing, practical skills, attendance	2	4	14
		Rubizhny	Oral/written questioning, situational task	6	10	
Module 5	RK No10: Syndromes in rheumatology. Subjective and objective research methods	Current	Frontal questioning, testing, practical skills, attendance	2	4	16
		Rubizhny	Oral/written questioning, situational task	6	10	
TOTAL per semester					40	70
Intermediate control (Exam)					20	30
Semester Ranking					60	100

6. MEDICAL HISTORY SECTION

6.1. General requirements for writing a medical history

A medical history is the main document of a medical organization containing information about the patient, his disease, examination and treatment. Students are required to master the skills of correct registration of a medical history in accordance with the order of the Ministry of Health of the Russian Federation.

6.2. Structure of the educational medical history

Section	Table of Contents	Formatting requirements	Points
Title page	Full name, age, gender, date of admission, department, No medical history	Correct filling in of all details	5
Complaints	Subjective Feelings of the Patient at Admission	Complete, consistent presentation; Specifying the duration	10
Medical history	Development of the current disease from onset to admission	Chronological sequence; Connection with external factors	15
Life history	Health status before the disease, heredity, social history	Systematic presentation; Risk Factor Assessment	10
Objective status	Physical examination findings	Sequence: general examination, organs and systems; accuracy of wording	20
Preliminary diagnosis	Syndromic and nosological diagnosis with justification	Logical construction; Rationale for each syndrome	20
Survey plan	Laboratory and instrumental research methods	Validity of appointments; Compliance with the diagnosis	10
Treatment plan	Etiological and pathogenetic therapy	Compliance with the diagnosis; Taking into account contraindications	10

6.3. Procedure for protecting the medical history

1. The student supervises the patient during the entire period of study at the department
2. The medical history is drawn up in accordance with the established form
3. The medical history shall be defended in the form of a report with a presentation of a clinical case
4. The assessment is given according to the following criteria: completeness of anamnesis (25%), quality of physical examination (25%), correctness of diagnosis formulation (25%), justification of the examination and treatment plan (25%)

6.4. Sample fragment of the medical history (for the task)

COMPLAINTS UPON RECEIPT:

The patient complains of chest pain on the left, occurring during physical exertion (walking more than 200 m, climbing to the 2nd floor), radiating to the left arm, accompanied by shortness of breath. The duration of pain is 5–10 minutes, relieved by nitroglycerin. The course of the disease is about 2 years, recently – an increase in symptoms.

MEDICAL HISTORY:

For the first time, pain in the heart area arose about 2 years ago with significant physical exertion. The patient did not consult a doctor, the symptoms stopped on their own after rest. In the last 3 months, there has been an increase in symptoms.

OBJECTIVE STATUS:

General condition – satisfactory. Consciousness – clear. Position – active. Height 172 cm, weight 85 kg, BMI 28.7 kg/m². BP 150/90 mm Hg. HR 76 beats/min. Percussion – relative cardiac dullness extended to the left by 1 cm. Lungs – vesicular breathing, no wheezing.

PRELIMINARY DIAGNOSIS:

CHD: Angina pectoris of exertion PK II. Hypertension stage II, grade 2, risk 3.

RATIONALE:

CHD substantiated by paroxysmal pain behind the sternum with physical exertion, radiating to the left arm, relieved by nitroglycerin. FC II – pain at walking > 200 m. Hypertension – BP 150/90 mm Hg + LV hypertrophy.

7. INDEPENDENT WORK OF THE STUDENT

7.1. Time management

Type of activity	Time (per week)	References
Study of the notes on the day of the lecture	10–15 min	Immediate review of the material after the lecture
Revision of notes before the next lecture	10–15 min	Active reproduction of the main provisions
Study of theoretical material from the textbook	1 hour	Work with basic and additional literature
Preparation for the practical lesson	2 hours	Study of key concepts, preparation for solving problems
Total	3 h 30 min	Regular daily work

7.5. Topics for independent work

№	Topic of independent work	Hours
1	Questions of the history of the department. Contribution of domestic and foreign scientists to the development of therapeutic schools	2
2	Medical ethics and deontology	2
3	General examination of the patient: methodology, diagnostic value. Pathological forms of the chest	2
4	Body temperature. The nature of the temperature curve. Species. Importance in somatic diseases	2
5	Determination of body mass index (Quetelet), overweight and obesity	2
6	The history of the development of percussion as a research method. The role of Leopold Auenbrugger and Jean-Nicolas Corvisart	2
7	History of the development of auscultation as a research method. Biophysical Foundations of Auscultation	2
8	Diagnostic value of laboratory research methods in pulmonology	2
9	Diagnostic value of instrumental research methods in pulmonology: X-ray examinations, bronchoscopy	2
10	Diagnostic value of spirography	2
11	Laennec's contribution to auscultation of the heart and blood vessels	3
12	Invention of the ECG by Willem Einthoven. Introduction of ECG into clinical practice	3
13	The contribution of Academician M.M. Mirrakhimov to the study of the heart through scientific research	3
14	Diagnostic value of echocardiography (ECHOCARDI)	3
15	Diagnostic value of X-ray examinations of the heart	3
16	Diagnostic value of BP monitoring. Phenotypes of high blood pressure	3
17	Diagnostic value of laboratory methods in cardiology: blood enzymes (troponin, myoglobin, CPK, LDH)	3
18	Diagnostic value of functional tests: 6-minute walk test	3
19	Diagnostic value of the H.pylori study	2

№	Topic of independent work	Hours
20	Diagnostic value of gastroscopy in gastrointestinal diseases	2
21	Diagnostic value of mineral and bone disorders in chronic kidney disease	2
22	Diagnostic value of laboratory methods in kidney pathology	2
23	Diagnostic value of instrumental methods in kidney diseases (ultrasound, CT, MRI, biopsy)	2
24	Hematopoiesis scheme. The Importance of Cell Differentiation and Proliferation in the Clinic	2
25	Diagnostic value of immunophenotyping in leukemia	2
26	The importance of the hypothalamic-pituitary axis in thyroid diseases	2
27	Types of prediabetes: fasting glycemia, impaired carbohydrate tolerance. Glucose tolerance test	2
28	The Importance of Immunological Studies in Rheumatology (Rheumatoid Factor, ACCP, ANF, HLA B27)	2
29	The importance of instrumental methods of joint examination (X-ray, ultrasound, CT, MRI)	2
30	Importance of synovial fluid analysis	2

8. TYPICAL CONTROL TASKS

CONTROL SECTION No1

Section 1: The subject and tasks of propaedeutics. General and detailed inspection

BLOCK A: REPRODUCTIVE LEVEL (KNOWLEDGE)

Execution time: 30 minutes

1. ORAL QUESTIONS (selectively 3–4 questions):

1. What are the main methods of physical examination in the propaedeutics of internal diseases?
2. Describe the general examination of the patient: methodology, diagnostic value.
3. List the pathological forms of the chest and their clinical significance.
4. Describe the method of determining body temperature and the nature of the temperature curve.
5. Name the types of temperature curves and their importance in somatic diseases.
6. Describe the method for determining the body mass index (Quetelet).
7. Name the degree of obesity by BMI.
8. Describe medical ethics and deontology.

2. TEST TASKS (closed type):

Q1. Barrel-shaped chest, horizontal position of the ribs. What syndrome characterizes this?

- A) Lung tissue infiltration syndrome
- B) Syndrome of increased airiness of the lungs
- C) Fluid in the pleural cavity syndrome
- D) Bronchial obstruction syndrome
- E) Cavity syndrome in the lung

Q2. Body temperature 39.5°C, daily fluctuations ≤1°C. What type of temperature curve?

- A) Remitting
- B) Low-grade
- C) Constant
- D) Intermittent
- E) Hectic

Q3. Patient: height 175 cm, weight 95 kg. Calculate BMI and classify.

- A) BMI 26, overweight
- B) BMI 31, obesity grade I
- C) BMI 35, obesity grade II
- D) BMI 28, overweight
- E) BMI 24, normal

Q4. Asymmetry of the chest, right side lags in breathing. Most likely pathological process?

- A) Pulmonary emphysema
- B) Pneumothorax
- C) Infiltration of lung tissue
- D) Atelectasis or pleural effusion
- E) Bronchial asthma

BLOCK C: RECONSTRUCTIVE LEVEL (APPLICATION)

Runtime: 60 minutes

CASE STUDY No1:

Patient M., 45 years old, complained of fever up to 38.5°C for 5 days, chills, weakness, headache. On examination: skin hyperemic, moist. HR 22/min. Pulse 92 beats/min, rhythmic. BP 125/80 mmHg. In the lungs – vesicular breathing, no wheezing.

Questions:

9. 1. Determine the type of temperature curve and characterize it. (5 points)
10. 2. What additional examination methods should be prescribed? (5 points)
11. 3. Make a plan for the patient's examination with a justification for each method. (10 points)

CONTROL SECTION No2

Section 2: Methods of examination of the respiratory organs. Syndromes in pulmonology

BLOCK A: REPRODUCTIVE LEVEL (KNOWLEDGE)
Execution time: 30 minutes

1. ORAL QUESTIONS (selectively 3–4 questions):

1. Describe the method of lung percussion.
2. Describe the method of auscultation of the lungs.
3. List the main normal breathing sounds and their characteristics.
4. Name pathological wheezing and their diagnostic value.
5. Describe bronchial obstruction syndrome.
6. Describe the syndrome of increased airiness of the lungs (emphysema).

2. TEST TASKS (closed type):

Q1. Percussion reveals dulling over the lesion. What pathological process is most likely?

- A) Pulmonary emphysema
- B) Pneumothorax
- C) Infiltration of lung tissue
- D) Bronchial asthma
- E) Pleural effusion

Q2. Fine-bubble crackles in the lower parts of the lungs. What syndrome?

- A) Bronchial obstruction syndrome
- B) Lung tissue infiltration syndrome
- C) Fluid in the pleural cavity syndrome
- D) Pulmonary insufficiency syndrome
- E) Chronic cor pulmonale syndrome

Q3. X-ray: increased airiness, expansion of retrosternal space. Which syndrome?

- A) Bronchial obstruction syndrome
- B) Syndrome of increased airiness (emphysema)
- C) Lung tissue infiltration syndrome
- D) Pleural fluid syndrome
- E) Cavity syndrome in the lung

BLOCK C: RECONSTRUCTIVE LEVEL (APPLICATION)
Runtime: 60 minutes

CASE STUDY No1:
Patient K., 58 years old, cough with yellowish-green sputum for 5 days, fever 38.5°C, chest pain on right when coughing. Percussive sound blunted, breathing weakened, coarse-bubble crackles heard over right lower chest. Temperature 38.3°C.

Questions:
1. What syndrome is characteristic of this patient? (5 points)
2. What additional examination methods should be prescribed? (5 points)
3. Make a plan for the patient's examination with a justification for each method. (10 points)

CONTROL SECTION No3
Section 3: Syndromes in Pulmonology (continued)

BLOCK A: REPRODUCTIVE LEVEL (KNOWLEDGE)
Execution time: 30 minutes

1. ORAL QUESTIONS (selectively 3–4 questions):

1. Describe the syndrome of lung tissue collapse (atelectasis).
2. Describe the syndrome of thickening of lung tissue.
3. What are the clinical manifestations of lung cavity syndrome?
4. Describe the syndrome of fluid accumulation in the pleural cavity.
5. Describe the syndrome of gas in the pleural cavity.
6. What is the diagnostic value of spirography?

2. TEST TASKS (closed type):

Q1. Right side lags in breathing, percussive sound dull, breathing not heard. Which syndrome?

- A) Pleural fluid syndrome
- B) Pleural gas syndrome
- C) Lung tissue infiltration syndrome
- D) Bronchial obstruction syndrome
- E) Syndrome of increased airiness of the lungs

Q2. Spirography: FEV1/FVC < 70%, increased residual volume. What type of ventilation disturbance?

- A) Restrictive type
- B) Obstructive type
- C) Mixed type
- D) Diffusion type
- E) Perfusion type

BLOCK C: RECONSTRUCTIVE LEVEL (APPLICATION)
Runtime: 60 minutes

CASE STUDY No1:
Patient N., 62 years old, smoker 40 years, shortness of breath on slight physical exertion, periodic cough with mucous sputum. Chest barrel-shaped. Percussion sound box-like. Auscultation – weakened breathing, prolonged exhalation. Spirography: FEV1/FVC – 58%.

Questions:
1. What syndrome is characteristic of this patient? (5 points)
2. Interpret spirography data. (5 points)
3. Make a differential diagnosis of the syndrome of bronchial obstruction of various genesis. (10 points)

CONTROL SECTION No4

Section 4: Methods of studying the cardiovascular system. Syndromes in cardiology

BLOCK A: REPRODUCTIVE LEVEL (KNOWLEDGE)

Execution time: 30 minutes

BLOCK A: REPRODUCTIVE LEVEL (KNOWLEDGE)
Execution time: 30 minutes

1. ORAL QUESTIONS (selectively 3–4 questions):

1. Describe the properties of the arterial pulse.
2. Describe the method of determining the boundaries of relative and absolute cardiac dullness.
3. List the main heart sounds and the mechanism of their occurrence.
4. Name the pathological heart sounds.
5. Describe heart murmurs: systolic and diastolic.
6. Describe the ECG criteria for myocardial hypertrophy.

2. TEST TASKS (closed type):

Q1. ECG: amplitude of R wave in V5–V6 > 25 mm. What is diagnosed?

- A) Right ventricular hypertrophy
- B) Left ventricular hypertrophy
- C) Hypertrophy of both ventricles
- D) Left atrium dilatation
- E) Right atrium dilatation

Q2. Long systolic murmur heard above the apex, conducted to axillary region. What characterizes this auscultatory syndrome?

- A) Mitral stenosis
- B) Mitral insufficiency
- C) Aortic stenosis
- D) Aortic insufficiency
- E) Tricuspid valve insufficiency

BLOCK C: RECONSTRUCTIVE LEVEL (APPLICATION)

Runtime: 60 minutes

CASE STUDY No1:

Patient K., 45 years old, pain in the heart area with physical exertion, radiating to the left arm, relieved by nitroglycerin. BP 140/90 mm Hg, pulse 88 beats/min. ECG: signs of LV hypertrophy.

Questions:

1. What syndrome is characteristic of this patient? (5 points)
2. What additional examination methods should be prescribed? (5 points)
3. Make a plan for the patient's examination with a justification for each method. (10 points)

CONTROL SECTION No5

Section 5: Syndromes in cardiology (continued). Protection of medical history

BLOCK A: REPRODUCTIVE LEVEL (KNOWLEDGE)

Execution time: 30 minutes

1. ORAL QUESTIONS (selectively 3–4 questions):

1. Describe the syndrome of heart rhythm disorders (arrhythmia).
2. Describe conduction disorders: AV block, bundle branch block.
3. Name the ECG criteria for acute myocardial infarction.
4. Describe the heart failure syndrome.
5. Describe the syndrome of arterial hypertension.

2. TEST TASKS (closed type):

Q1. ECG: absence of P waves, wave-like oscillations f with a frequency of 450–600/min. What rhythm disorder?

- A) Sinus tachycardia
- B) Extrasystole
- C) Atrial fibrillation
- D) Atrial flutter
- E) Paroxysmal tachycardia

Q2. ECG: elevation of ST segment above contour in leads V1–V4. Which syndrome?

- A) Exertional angina syndrome
- B) Acute coronary syndrome
- C) Chronic coronary insufficiency syndrome
- D) Pericarditis syndrome
- E) Cor pulmonale syndrome

BLOCK C: RECONSTRUCTIVE LEVEL (APPLICATION)

Runtime: 60 minutes

CASE STUDY No1:

Patient V., 55 years old, intense squeezing pain behind the sternum at rest, radiating to the left arm and jaw, not relieved by nitroglycerin. Duration 40 minutes. ECG: ST-segment elevation in leads II, III, aVF. Troponin I positive.

Questions:

1. What syndrome is characteristic of this patient? (5 points)
2. Determine the localization of myocardial ischemia by ECG. (5 points)
3. Draw up a fragment of the medical history: complaints, preliminary diagnosis with justification. (10 points)

CONTROL SECTION No6

Section 6: Methods of examination of the gastrointestinal tract. Syndromes in gastroenterology

BLOCK A: REPRODUCTIVE LEVEL (KNOWLEDGE)

Execution time: 30 minutes

1. ORAL QUESTIONS (selectively 3–4 questions):

1. Describe the method of palpation of the abdominal organs.
2. Describe the method of liver percussion according to Kurlov.
3. List the main syndromes in gastroenterology.
4. Describe the syndrome of impaired secretory function of the stomach.
5. Describe jaundice syndrome.
6. Name liver syndromes and their diagnostic significance.

2. TEST TASKS (closed type):

Q1. Dull aching pain in epigastrium occurring 1.5–2 hours after eating, relieved by eating. What syndrome?

- A) Gastric hypersecretion syndrome
- B) Gastric hyposecretion syndrome
- C) Gastric evacuation disorder syndrome
- D) Maldigestion syndrome
- E) Intestinal dyspepsia syndrome

Q2. Jaundice of skin and sclera, itching, dark urine, discolored feces. What syndrome?

- A) Hemolytic jaundice syndrome
- B) Parenchymal jaundice syndrome
- C) Mechanical (subhepatic) jaundice syndrome
- D) Cytolysis syndrome
- E) Portal hypertension syndrome

BLOCK C: RECONSTRUCTIVE LEVEL (APPLICATION)

Runtime: 60 minutes

CASE STUDY No1:

Patient N., 42 years old, dull pains in epigastrium occurring 2 hours after eating, night pains relieved by "soda". During the last 3 days – increased pain, appearance of black tarry stools.

Questions:

1. What syndromes are characteristic of this patient? (5 points)
2. What additional examination methods should be prescribed? (5 points)
3. Draw up an examination plan with a justification for each method. (10 points)

CONTROL SECTION No7

Section 7: Methods of examination of the urinary system. Syndromes in nephrology

BLOCK A: REPRODUCTIVE LEVEL (KNOWLEDGE)

Execution time: 30 minutes

1. ORAL QUESTIONS (selectively 3–4 questions):

1. Describe the method of palpation of the kidneys.
2. Describe the method for determining the symptom of pounding.
3. List the main syndromes in nephrology.
4. Characterize edema syndrome and nephrotic syndrome.
5. Describe dysuric syndrome.
6. Name the syndromes of acute and chronic renal failure.

2. TEST TASKS (closed type):

Q1. Facial edema in the morning, decreased diuresis to 500 ml/day, increased BP. What syndrome?

- A) Heart failure syndrome
- B) Edematous syndrome (nephrotic)
- C) Portal hypertension syndrome
- D) Lymphedema syndrome
- E) Hypothyroidism syndrome

Q2. Urinalysis: protein 4.5 g/l, leukocytes 2–3/hpf, hyaline cylinders 5–7/hpf. What syndrome?

- A) Urinary syndrome (nephritic)
- B) Nephrotic syndrome
- C) Pyelonephritis syndrome
- D) Urolithiasis syndrome
- E) Norm

BLOCK C: RECONSTRUCTIVE LEVEL (APPLICATION)

Runtime: 60 minutes

CASE STUDY No1:

Patient R., 28 years old, swelling of face and lower extremities, decreased urine output, BP 160/100 mm Hg. Urinalysis: protein 6.8 g/l, hyaline cylinders. Blood: total protein 48 g/l, albumins 28 g/l, cholesterol 8.2 mmol/l.

Questions:

1. What syndromes are characteristic of this patient? (5 points)
2. What additional examination methods should be prescribed? (5 points)
3. Draw up an examination plan with the justification of the differential diagnosis. (10 points)

CONTROL SECTION No8

Section 8: Methods of research of hematopoietic organs. Syndromes in hematology

BLOCK A: REPRODUCTIVE LEVEL (KNOWLEDGE)
Execution time: 30 minutes

1. ORAL QUESTIONS (selectively 3–4 questions):

1. Characterize the general blood test in normal and anemia.
2. Describe the method of palpation of the lymph nodes and spleen.
3. List the syndromes of iron deficiency anemia.
4. Describe the syndromes of B12-deficiency anemia.
5. Describe the hemolytic syndrome and its laboratory criteria.
6. Name hemorrhagic syndrome and DIC syndrome.

2. TEST TASKS (closed type):

Q1. Weakness, dizziness, tinnitus, glossitis. Blood: Hb 75 g/l, MCV 110 fl, MCH 38 pg. What syndrome?

- A) Iron deficiency anemia
- B) B12-deficiency anemia
- C) Hemolytic anemia
- D) Aplastic anemia
- E) Anemia of chronic diseases

Q2. Blood: Hb 95 g/l, MCV 72 fl, MCH 24 pg, color index 0.78. What type of anemia?

- A) Normochromic
- B) Hyperchromic
- C) Hypochromic (iron deficiency)
- D) Macrocytic
- E) Normocytic

BLOCK C: RECONSTRUCTIVE LEVEL (APPLICATION)
Runtime: 60 minutes

CASE STUDY No1:
Patient K., 35 years old, weakness, dizziness, desire to eat chalk and raw pasta, brittle nails, hair loss. Blood: Hb 85 g/l, MCV 76 fl, MCH 24 pg, color index 0.75. Serum iron 6 μmol/l, ferritin 8 μg/l.

Questions:

1. What syndromes are characteristic of this patient? (5 points)
2. What additional examination methods should be prescribed? (5 points)
3. Draw up an examination plan with the justification of the differential diagnosis. (10 points)

CONTROL SECTION No9

Section 9: Methods of examination of the endocrine system. Syndromes in endocrinology

BLOCK A: REPRODUCTIVE LEVEL (KNOWLEDGE)
Execution time: 30 minutes

1. ORAL QUESTIONS (selectively 3–4 questions):

1. Describe the method of palpation of the thyroid gland.
2. What are the main syndromes in endocrinology?
3. Describe the hypothyroidism syndrome.
4. Describe the hyperthyroidism syndrome.
5. What are the criteria for diagnosing diabetes mellitus?
6. Describe the hyperglycemia syndrome.

2. TEST TASKS (closed type):

Q1. Exophthalmos, tremor of the fingers, wet skin, tachycardia. What syndrome?

- A) Hypothyroidism
- B) Hyperthyroidism
- C) Hypercortisolism
- D) Acromegaly
- E) Hypoparathyroidism

Q2. Blood: free T4 28 pmol/l (norm 11–22), TSH 0.05 mIU/l (norm 0.4–4.0). Most likely diagnosis?

- A) Primary hypothyroidism
- B) Primary hyperthyroidism
- C) Secondary hypothyroidism
- D) Hashimoto's thyroiditis
- E) Euthyroid syndrome

BLOCK C: RECONSTRUCTIVE LEVEL (APPLICATION)
Runtime: 60 minutes

CASE STUDY No1:
Patient G., 35 years old, irritability, hand tremors, excessive sweating, palpitations, weight loss 8 kg in 2 months with good appetite. Thyroid gland enlarged grade II. Blood: free T4 48 pmol/l, TSH 0.01 mIU/l, TSH receptor AT positive.

Questions:

1. What syndrome is characteristic of this patient? (5 points)
2. What additional examination methods should be prescribed? (5 points)
3. Draw up an examination plan with a justification for differential diagnosis. (10 points)

CONTROL SECTION No10

Section 10: Methods of studying the musculoskeletal system. Syndromes in rheumatology

BLOCK A: REPRODUCTIVE LEVEL (KNOWLEDGE)

Execution time: 30 minutes

1. ORAL QUESTIONS (selectively 3–4 questions):

1. What are the main methods of joint examination?
2. Describe the differences between inflammatory and degenerative arthritis.
3. List the main syndromes in rheumatology.
4. Describe the syndrome of inflammatory joint damage (arthritis).
5. Describe the syndrome of degenerative joint damage (arthrosis).
6. What are the criteria for diagnosing rheumatoid arthritis?

2. TEST TASKS (closed type):

Q1. Symmetrical swelling of PMFS II–III fingers of both hands, morning stiffness > 2 hours. What syndrome?

- A) Osteoarthritis
- B) Rheumatoid arthritis (arthritic syndrome)
- C) Gouty arthritis
- D) Reactive arthritis
- E) Psoriatic arthritis

Q2. Blood: ESR 45 mm/h, CRP 32 mg/l, rheumatoid factor 85 IU/ml, ACCP 56 U/ml. What diagnosis?

- A) Systemic lupus erythematosus
- B) Seropositive arthritis
- C) Ankylosing spondylitis
- D) Osteoarthritis
- E) Gout

BLOCK C: RECONSTRUCTIVE LEVEL (APPLICATION)

Runtime: 60 minutes

CASE STUDY No1:

Patient E., 42 years old, pain and swelling in small joints of hands (proximal interphalangeal), morning stiffness > 2 hours, weakness, fever 37.2–37.5°C. Blood: ESR 42 mm/h, CRP 28 mg/l, RF 68 IU/ml, ACCP 45 U/ml.

Questions:

1. What syndrome is characteristic of this patient? (5 points)
2. What additional examination methods should be prescribed? (5 points)
3. Draw up an examination plan with a justification for differential diagnosis. (10 points)

9. BLOCK D: ATTESTATION LEVEL (COMPREHENSIVE ASSESSMENT)
Runtime: 120 minutes

TICKET No1
1. Heart failure syndrome (subjective and objective signs, research methods). (30 points)
2. Practical skill: percussion and auscultation of the heart. Determination of the boundaries of the heart, detection of pathological murmurs. (40 points)
3. Analytical task: Interpretation of ECG in acute myocardial infarction (determination of localization, stage). (30 points)

TICKET No2
1. Myocardial ischemia syndrome (angina pectoris of tension and rest, subjective and objective signs, research methods, differential diagnosis). (30 points)
2. Practical skill: determination of blood pressure by the Korotkov method, palpation of the pulse on the peripheral arteries. (40 points)
3. Analytical task: Interpretation of ECG in arrhythmias (atrial fibrillation, extrasystole, blockages). (30 points)

TICKET No3
1. Bronchial obstruction syndrome (subjective and objective signs, research methods, differential diagnosis of reversible and irreversible bronchial obstruction). (30 points)
2. Practical skill: percussion and auscultation of the lungs. Determination of breathing sounds, detection of pathological wheezing. (40 points)
3. Analytical task: Interpretation of the spirogram (determination of the type of ventilation disorders, the degree of bronchial obstruction). (30 points)

TICKET No4
1. Lung tissue infiltration syndrome (subjective and objective signs, research methods, differential diagnosis of infiltrative syndrome of inflammatory and tumor genesis). (30 points)
2. Practical skill: determination of the boundaries of the lungs and Kroenig's fields by percussion, determination of the mobility of the lower edge of the lungs. (40 points)
3. Analytical task: Interpretation of chest X-ray (detection of infiltrate, pleural effusion, emphysema). (30 points)

TICKET No5
1. General and detailed examination of the patient (subjective and objective research methods, anamnesis, physical examination). (30 points)
2. Practical skill: general examination of the patient, determination of pulse and respiratory rate, measurement of blood pressure, determination of BMI. (40 points)
3. Analytical task: Interpretation of general blood and urine analysis (detection of pathological changes, formulation of syndromic diagnosis). (30 points)

TICKET No6
1. Syndrome of increased airiness of the lungs (subjective and objective signs, research methods). (30 points)
2. Practical skill: examination of the chest, determination of the shape of the chest, type of breathing, respiratory rate. (40 points)

3. Analytical task: Interpretation of clinical and radiological data in pneumonia (identification of characteristic changes, differential diagnosis). (30 points)

TICKET No7
1. Fluid syndrome in the pleural cavity (subjective and objective signs, research methods). (30 points)
2. Practical skill: palpation of lymph nodes, liver, spleen, determination of edema on the lower extremities. (40 points)
3. Analytical task: Interpretation of the results of pleural puncture and pleural fluid analysis. (30 points)

TICKET No8
1. Arterial hypertension syndrome (subjective and objective signs, research methods, stratification of cardiovascular risk). (30 points)
2. Practical skill: determination of the boundaries of relative and absolute cardiac dullness, detection of cardiac displacement in pathology of the lungs and pleura. (40 points)
3. Analytical task: Interpretation of daily BP monitoring (identification of the daily profile, "white coat" hypertension). (30 points)

TICKET No9
1. Jaundice syndrome (subjective and objective signs, research methods, differential diagnosis of hemolytic, parenchymal and obstructive jaundice). (30 points)
2. Practical skill: palpation and percussion of the liver, determination of the size of the liver according to Kurlov. (40 points)
3. Analytical task: Interpretation of biochemical parameters in jaundice (bilirubin, liver enzymes). (30 points)

TICKET No10
1. Nephrotic and nephritic syndrome (subjective and objective signs, research methods, differential diagnosis). (30 points)
2. Practical skill: drawing up a medical history (filling in the sections: complaints, anamnesis, objective status, preliminary diagnosis). (40 points)
3. Analytical task: Comprehensive interpretation of clinical, laboratory and instrumental data (formulation of syndromic diagnosis). (30 points)

10. METHODICAL MATERIALS OF ASSESSMENT

10.1. 100-point rating scale

Semester 5 (Credit)

Type of activity	Credit minimum	Maximum	% of final grade
Ongoing control (5 modules × 2–4 points)	10	20	20%
Midterm control (5 modules × 6–10 points)	30	50	50%
Total for the semester	40	70	70%
Intermediate control (Pass)	20	30	30%
Semester Ranking by Discipline	60	100	100%

Semester 6 (Exam)

Type of activity	Credit minimum	Maximum	% of final grade
Ongoing control (5 modules × 2–4 points)	10	20	20%
Midterm control (5 modules × 6–10 points)	30	50	50%
Total for the semester	40	70	70%
Intermediate control (Exam)	20	30	30%
Semester Ranking by Discipline	60	100	100%

10.2. Evaluation criteria by levels of assimilation

Level	Characteristics	Points	Evaluation	Types of assessment tools
Reproductive	Reproduction of facts, definitions, algorithms without errors	60–69	Satisfactory (E)	Block A: Knowledge tests
Reconstructive	Application of knowledge in standard situations, solving typical problems	70–84	Good (C, D)	Block C: Situational tasks
Practice-oriented	Solving professional problems, possessing practical skills	85–94	Excellent (B)	Block C: Practice-oriented tasks
Creative	Comprehensive analysis of non-standard situations, informed decision-making	95–100	Excellent (A)	Unit D: Appraisal Questions

10.3. Procedure for retaking and appealing

1. Retake of the midterm control: Within 2 weeks after the main date. The maximum score for a retake is 80% of the maximum.
2. Retaking the test: Within the established deadlines for retakes. The rating is not higher than "satisfactory".
3. Retake of the exam: In accordance with the schedule of the exam session.

10.4. Basic requirements for intermediate control

When appearing for tests, students are required to have their record books with them and present them to the examiner. The teacher is given the right to give a credit without questioning to those students who scored more than 60 points for the current and midterm control.

In the exam, the student must answer the questions correctly and demonstrate practical skills. In the theoretical part of the exam, he must answer the questions of the ticket (know), correctly complete the situational task (be able, possess), interpret laboratory and instrumental studies (be able, possess).

. REFERENCES

Main references:

1. Soldatova G.S. Scheme of the history of illness: Educational method. Manual. 2004.
2. Brimkulov N.N. (ed.) Propaedeutics of Internal Diseases: Textbook. Bishkek: KRSU Publ., 2005.
3. Scheme of medical history: methodological recommendations for students. Bishkek, 2003.
4. Baizakova S.S., Brimkulov N.N., Murataliev T.M. Propaedeutics of Internal Diseases: Textbook. Bishkek: KRSU Publ., 2005.

Further reading:

1. Zudbinov Yu.I. ABC of ECG and Pain in the Heart. Rostov-on-Don: Phoenix, 2013.
2. Strutynsky A.V. et al. Fundamentals of Semiotics of Internal Organ Diseases. MEDpress-inform, 2011.
3. Kukes V.G. et al. Medical Methods of Diagnosis. GEOTAR-Media, 2006.
4. Melentyev A.S. Propaedeutic foundations of the study of patients with pathology of the musculoskeletal apparatus. Moscow, 2008.