

Federal State Budgetary Educational Institution of Higher Education  
"Privolzhsky Research Medical University"  
Ministry of Health of the Russian Federation

**BANK OF ASSESSMENT TOOLS FOR DISCIPLINE**  
**PROPAEDEUTICS OF INTERNAL DISEASES**

Specialty: **31.05.01 GENERAL MEDICINE**

Qualification: **GENERAL PRACTITIONER**

Department: **ENDOCRINOLOGY AND INTERNAL MEDICINE**

Mode of study: **FULL-TIME**

Labor intensity of the academic discipline: **360 academic hours**

## 1. Bank of assessment tools for the current monitoring of academic performance, mid-term assessment of students in the discipline

This Bank of Assessment Tools (BAT) for the discipline «Propaedeutics of internal diseases» is an integral appendix to the working program of the discipline «Propaedeutics of internal diseases». All the details of the approval submitted in the WPD for this discipline apply to this BAT.

## 2. List of assessment tools

The following assessment tools are used to determine the quality of mastering the academic material by students in the discipline:

No.	Assessment tool	Brief description of the assessment tool	Presentation of the assessment tool in the BAT
1	Test №1 Test №2 Test №3 Test №4 Test №5 Test №6	A system of standardized tasks that allows you to automate the procedure of measuring the level of knowledge and skills of a student	Bank of test tasks
2	Report	The product of the student's independent work, which is a public presentation about the results obtained by solving a certain educational, practical, research or scientific topic	Topics of reports, presentations
3	Interview	A tool of control organized as a special conversation between the teacher and the student on topics related to the discipline being studied, and designed to clarify the amount of knowledge of the student on a specific section, topic, problem, etc.	Questions on topics/sections of the discipline
4	Case - task	A problem task in which the student is offered to comprehend a real professionally-oriented situation necessary to solve this problem.	Tasks for solving cases
5	Case reports	The product of the student's independent work, which is a presentation and analysis of the results of work with the patient, including an assessment of his complaints, anamnesis, condition, pathological signs identified during a physical examination, parameters of laboratory and instrumental research methods, justification of the diagnosis of the disease established in accordance with the classification and therapeutic and preventive measures for lifestyle modification and drug treatment.	List of diseases

**3. A list of competencies indicating the stages of their formation in the process of mastering the educational program and the types of evaluation tools**

Code and formulation of competence*	Stage of competence formation	Controlled sections of the discipline	Assessment tools
UC-1 - is able to carry out a critical analysis of problem situations based on a systematic approach, to develop a strategy of actions	Entry, Current	<b>Section 1</b> Introduction to propaedeutics of internal diseases <b>Section 2</b> Methods of clinical examination of a patient. Taking history. Physical methods <b>Section 3</b> Respiratory system <b>Section 4</b> Cardiovascular system <b>Section 5</b> Digestive system <b>Section 6</b> Urinary system <b>Section 7</b> Hematopoietic system <b>Section 8</b> Endocrine system <b>Section 9</b> Musculoskeletal system <b>Section 10</b> Urgent conditions in the clinic of internal diseases	Test 1 Report 2 Interview 3
UC-4 is able to apply modern communication technologies, including in a foreign language, for academic and professional interaction	Current	<b>Section 1</b> Introduction to propaedeutics of internal diseases <b>Section 2</b> Methods of clinical examination of a patient. Taking history. Physical methods <b>Section 3</b> Respiratory system <b>Section 4</b> Cardiovascular system <b>Section 5</b> Digestive system <b>Section 6</b> Urinary system <b>Section 7</b> Hematopoietic system <b>Section 8</b> Endocrine system <b>Section 9</b> Musculoskeletal system <b>Section 10</b> Urgent conditions in the clinic of internal diseases	Test 1 Report 2 Interview 3
UC-5 is able to analyze and take into account the diversity of cultures in the process of intercultural interaction	Current	<b>Section 1</b> Introduction to propaedeutics of internal diseases <b>Section 2</b> Methods of clinical examination of a patient. Taking history. Physical methods <b>Section 3</b> Respiratory system <b>Section 4</b> Cardiovascular system <b>Section 5</b> Digestive system <b>Section 6</b> Urinary system <b>Section 7</b> Hematopoietic system <b>Section 8</b> Endocrine system <b>Section 9</b> Musculoskeletal system <b>Section 10</b> Urgent conditions in the clinic of internal diseases	Test 1 Report 2 Interview 3
GPC-1 is able to implement moral and legal norms, ethical and deontological principles in	Entry	<b>Section 2</b> Methods of clinical examination of a patient. Taking history. Physical methods <b>Section 3</b> Respiratory system <b>Section 4</b> Cardiovascular system	Test 1 Interview 3

professional activity		<b>Section 5</b> Digestive system <b>Section 6</b> Urinary system <b>Section 7</b> Hematopoietic system <b>Section 8</b> Endocrine system <b>Section 9</b> Musculoskeletal system <b>Section 10</b> Urgent conditions in the clinic of internal diseases	
GPC-4 is capable of using medical devices provided for by the procedure for providing medical care, as well as conducting examinations of the patient in order to establish a diagnosis	Current	<b>Section 2</b> Methods of clinical examination of a patient. Taking history. Physical methods <b>Section 3</b> Respiratory system <b>Section 4</b> Cardiovascular system <b>Section 5</b> Digestive system <b>Section 6</b> Urinary system <b>Section 7</b> Hematopoietic system <b>Section 8</b> Endocrine system <b>Section 9</b> Musculoskeletal system <b>Section 10</b> Urgent conditions in the clinic of internal diseases	Test 1 Interview 3 Case reports 5
GPC-5 is able to evaluate morpho functional, physiological states and pathological processes in the human body to solve professional tasks	Current	<b>Section 2</b> Methods of clinical examination of a patient. Taking history. Physical methods <b>Section 3</b> Respiratory system <b>Section 4</b> Cardiovascular system <b>Section 5</b> Digestive system <b>Section 6</b> Urinary system <b>Section 7</b> Hematopoietic system <b>Section 8</b> Endocrine system <b>Section 9</b> Musculoskeletal system <b>Section 10</b> Urgent conditions in the clinic of internal diseases	Test 1 Interview 3 Case reports 5
GPC-10 is able to solve standard tasks of professional activity using information, bibliographic resources, medical and biological terminology, information and communication technologies, taking into account the basic requirements of information security	Current	<b>Section 1</b> Introduction to propaedeutics of internal diseases <b>Section 2</b> Methods of clinical examination of a patient. Taking history. Physical methods <b>Section 3</b> Respiratory system <b>Section 4</b> Cardiovascular system <b>Section 5</b> Digestive system <b>Section 6</b> Urinary system <b>Section 7</b> Hematopoietic system <b>Section 8</b> Endocrine system <b>Section 9</b> Musculoskeletal system <b>Section 10</b> Urgent conditions in the clinic of internal diseases	Test 1 Interview 3 Case reports 5
PC-5 is able to collect complaints, anamnesis of the patient's life and illness, perform a complete physical examination of the	Entry, Current	<b>Section 2</b> Methods of clinical examination of a patient. Taking history. Physical methods <b>Section 3</b> Respiratory system <b>Section 4</b> Cardiovascular system <b>Section 5</b> Digestive system	Test 1 Case - task 4 Case reports 5

<p>patient (inspection, palpation, percussion, auscultation), formulate a initial diagnosis and make a plan for laboratory and instrumental investigation of the patient</p>		<p><b>Section 6</b> Urinary system  <b>Section 7</b> Hematopoietic system  <b>Section 8</b> Endocrine system  <b>Section 9</b> Musculoskeletal system  <b>Section 10</b> Urgent conditions in the clinic of internal diseases</p>	
<p>PC-6 is able to refer the patient for laboratory, instrumental investigation, for consultation with specialist doctors if there are medical indications in accordance with the current procedures for providing medical care, on issues of providing medical care taking into account the standards of medical care, as well as to refer the patient for specialized medical care in inpatient conditions or in a day hospital when availability of medical indications in accordance with the current procedures for the provision of medical care, clinical recommendations (treatment protocols) on the provision of medical care, taking into account the standards of medical care</p>		<p><b>Section 2</b> Methods of clinical examination of a patient. Taking history. Physical methods  <b>Section 3</b> Respiratory system  <b>Section 4</b> Cardiovascular system  <b>Section 5</b> Digestive system  <b>Section 6</b> Urinary system  <b>Section 7</b> Hematopoietic system  <b>Section 8</b> Endocrine system  <b>Section 9</b> Musculoskeletal system  <b>Section 10</b> Urgent conditions in the clinic of internal diseases</p>	<p>Test 1  Case - task 4  Case reports 5</p>
<p>PC-7 is able to carry out differential diagnostics with other diseases/conditions, including urgent ones, to make a diagnosis taking into account the current international statistical classification of diseases and health-</p>		<p><b>Section 2</b> Methods of clinical examination of a patient. Taking history. Physical methods  <b>Section 3</b> Respiratory system  <b>Section 4</b> Cardiovascular system  <b>Section 5</b> Digestive system  <b>Section 6</b> Urinary system  <b>Section 7</b> Hematopoietic system  <b>Section 8</b> Endocrine system  <b>Section 9</b> Musculoskeletal system</p>	<p>Test 1  Case - task 4  Case reports 5</p>

related problems (ICD)		<b>Section 10</b> Urgent conditions in the clinic of internal diseases	
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#### 4. The content of the assessment tools of entry, current control

**Entry control** is carried out by the discipline teacher when conducting classes in the form of: assessment tool 1 - Test, assessment tool 2 - Report, assessment tool 3 – Interview.

##### *Assessment tool 1*

##### Testing questions

##### 1. WHAT ARE THE CHIEF COMPLAINTS OF THE PATIENT?

- a. all complaints actually available to the patient
- b. 1-2 complaints having the greatest diagnostic value
- c. complaints named by the patient and having the greatest subjective value for him
- d. complaints typical of respiratory and cardiovascular system damage
- e. complaints identified with additional questioning

##### 2. WHAT SHOULD I DO WHEN STARTING TO EXAMINE A PATIENT?

a. introduce yourself, get the patient's verbal consent to the examination before the examination

- b. immediately proceeds to the examination without expressing any emotions
- c. hides the status of the student to avoid distrust, conduct the examination
- d. introduce yourself, force the patient to completely undress immediately
- e. asks the patient to go out into the corridor for examination

##### 3. WHAT IS A NOSOLOGICAL UNIT?

a. an elementary sign of the disease  
b. a syndrome  
c. a specific disease that has its own etiology, pathogenesis, clinical and anatomical picture, standard response to therapy

- d. a component of the symptom complex
- e. a detailed diagnosis, including the main and concomitant diseases of the patient

##### 4. WHICH METHOD DOES NOT APPLY TO PHYSICAL?

- a. anamnesis collection
- b. examination of the patient
- c. palpation
- d. percussion
- e. auscultation

##### 5. WHAT APPLIES TO ADDITIONAL QUESTIONING?

- a. additional complaints
- b. history of the development of this disease
- c. life history
- d. passport data
- e. bad habits

6. WHAT IS RELEVANT TO FINDING OUT THE SEQUENCE OF SYMPTOMS OF THE DISEASE?

- a. history of the present illness
- b. complaints
- c. personal history
- d. general information
- e. system review

##### 7. SEMIOLOGY IS:

a. synonym of propaedeutics  
b. science that studies symptoms, mechanisms of their development and diagnostic significance  
c. teaching about the rules of diagnosis

- d. introduction to therapy
- e. teaching about nosological units

8. WHAT IS THE SEQUENCE OF PHYSICAL METHODS IS THE EXAMINATION CORRECT?

- a. palpation, inspection, percussion, auscultation
- b. inspection, palpation, auscultation, percussion
- c. inspection, palpation, percussion, auscultation
- d. inspection, auscultation, palpation, percussion
- e. questioning, inspection, percussion, palpation, auscultation

9. 9. WHAT IS THE BODY TEMPERATURE ABOVE 41 ° C?

- a. subfebrile
- b. moderately elevated
- c. high
- d. excessively high
- e. hyperpyretic

10. WHICH METHOD OF INVESTIGATION OF THE PATIENT IS INVASIVE?

- a. endoscopy
- b. MRI
- c. Ultrasound
- d. radiography
- e. phonocardiography

11. HOW DOES THE GENERAL INSPECTION OF THE PATIENT BEGIN?

- a. with the examination of body parts
- b. from the examination of the face
- c. general inspection
- d. studies of the musculoskeletal system
- e. studies of the skin and its derivatives

12. WHAT IS CHARACTERISTIC OF A STUPOR?

- a. hibernation, from which the patient comes out for a short time with a loud call or braking
- b. complete lack of reaction to external stimuli
- c. lack of reflexes and disorder of vital functions
- d. involuntary urination, defecation, tongue bite
- e. the patient is poorly oriented in the environment, on questions are answered belatedly 1

13. WHAT SIGNS CHARACTERIZE THE HYPERSTHENIC TYPE OF CONSTITUTION?

- a. the limbs are relatively long
- b. the lungs are elongated, the diaphragm is low
- c. the chest is short, wide
- d. the heart and parenchymal organs are relatively small
- e. the intestine is short, the mesentery is long

14. WHAT IS THE NAME OF A FEVER LASTING FROM 15 TO 45 DAYS?

- a. acute
- b. subacute
- c. chronic
- d. fleeting

15. WHAT IS THE NAME OF A FEVER IN WHICH THERE IS AN ALTERNATION OF PERIODS OF ELEVATED TEMPERATURE WITH NON-SPORADIC PERIODS?

- a. constant
- b. remittent
- c. intermittent
- d. hectic
- e. recurrent

16. WHAT CORRESPONDS TO THE 0 DEGREE OF GOITER ACCORDING TO THE CLASSIFICATION?

- a. the thyroid gland is not visible in the normal position of the neck

- b. the thyroid gland is clearly visible in the normal position of the neck
- c. in the normal position of the neck, only the isthmus of the thyroid gland is visible
- d. in the normal position of the neck, one of the lobes of the thyroid gland is visible

17. WHAT CHARACTERIZES THE SOPOR?

- a. hibernation, from which the patient comes out for a short time with a loud call or braying
- b. complete lack of reaction to external stimuli
- c. lack of reflexes and disorder of vital functions
- d. involuntary urination, defecation, tongue bite
- e. the patient is poorly oriented in the environment, to questions responds belatedly

18. WHAT IS THE NAME OF A FEVER WITH DAILY FLUCTUATIONS OF T ° MORE THAN 1 ° WITH AND A MORNING MINIMUM ABOVE 37°C?

- a. constant
- b. remittent
- c. intermittent
- d. hectic
- e. inversed

19. WHAT IS THE BODY TEMPERATURE DURING THE DAY WITH FLUCTUATIONS IN THE RANGE OF 38 -39 ° C?

- a. subfebrile
- b. moderate constant fever
- c. high fever
- d. hyperpyretic

20. THE TRADITIONAL GENERAL BLOOD TEST INCLUDES:

- a. determination of hemoglobin without counting red blood cells
- b. counting the number of platelets
- c. description of cell features in a stained blood smear
- d. determination of the number of reticulocytes
- e. hematocrit index

### *Assessment tool 2*

Sample topics of abstracts

1. Outstanding internists in world practice and their contribution to the development of modern medicine.
2. Skin and hair changes in diseases of internal organs.
3. Lymphadenopathy in therapeutic pathology.
4. The relationship of the patient's constitution type with the development of internal pathology.
5. Obesity and cachexia in the clinic of internal diseases.
6. Modern laboratory and instrumental diagnostics for diseases of internal organs.
7. Transudate and exudate in pleural effusion syndrome.
8. Obstructive and restrictive changes in the function of external respiration in various pulmonary syndromes.
9. Variants of normal ECG.
10. Infarct-like ECG changes.
11. Myocardial ischemia syndrome in the clinic of internal diseases.
12. Auscultation of the heart in combined heart defects.
13. Modern methods of instrumental and functional diagnostics in cardiac syndromes.
14. Syndromes of maldigestion and malabsorption in the clinic of internal diseases.
15. Modern laboratory and instrumental diagnostics and functional tests for diseases of the hepatobiliary system.
16. Modern achievements of internal medicine.
17. Modern laboratory and instrumental diagnostics and functional tests for diseases of the urinary system.
18. Differential diagnosis of jaundice syndrome.



19. Differential diagnosis of blood disease syndromes.
20. Differential diagnosis of endocrine disease syndromes.

### *Assessment tool 3*

#### Interview questions

1. The subject and tasks of propaedeutics.
2. Therapy as a field of clinical medicine, its importance in a number of other medical disciplines.
3. The history of the development of therapy as a science. Domestic and foreign therapeutic schools.
4. Outstanding internists in the history of medicine, the significance of their discoveries and achievements for the development of therapy.
5. Methodology of diagnosis. Basics of diagnostics.
6. General plan and basic principles of diagnostic research and differential diagnosis.
7. Definition of the symptom and syndrome. Examples
8. Stages of diagnosis making and rules of its justification.
9. The concept and fundamentals of deontology.
10. Principles of medical care, their justification, the Hippocratic Oath.
11. Psychological portrait of the doctor. Rules of relations with the patient, with his relatives, with colleagues, with junior medical staff.
12. Taking history as the first stage of examination of the patient. Rules of the event.
13. History of present illness. Principles of construction and rules of writing.
14. Personal history. Family, social, past medical history. Current health status.
15. Allergological, transfusiological, epidemiological anamnesis.
16. Complaints of the patient. Chief and additional complaints.
17. Objective examination of the patient. General inspection. Assessment of the severity of the condition, the level of consciousness, the position of the patient, his facial expression. Diagnostic value.
18. Determination of the patient's habitus, assessment of his physique, body mass index, constitution, motor activity, gait.
19. Assessment of vital signs: body temperature, pulse rate, respiratory rate, blood pressure level. Types of temperature chart. Causes of fever.
20. Examination and palpation of the skin. Skin discoloration, skin rashes, excessive humidity, dryness, temperature, elasticity. Determination of skin turgor Examination of subcutaneous fat. Rules for the detection of edema.
21. Rules for the examination of palpation of lymph nodes. Rules for describing the lymph node. Causes of lymphadenopathy.
22. Examination of skin derivatives: hair and nails. Types of distribution of body hair growth. Diagnostic value of deformation of the nail plate.
23. Examination and palpation of the musculoskeletal system. Determination of the degree of development of the muscular system, its strength, tone. Identification of deformities of bones and joints. Causes of bone and joint deformities.

**Current control** is carried out by the discipline teacher when conducting classes in the form of: assessment tool 1 - Test, assessment tool 3 – Interview, assessment tool 4 – Case – task, assessment tool 5 – Case reports.

### *Assessment tool 1*

#### Testing questions

1. WHAT IS THE NAME OF A SHORTENED, SHARPLY EXPANDED ANTERO-POSTERIOR, BARREL CHEST?
  - a. paralytic
  - b. emphysematous
  - c. kyphoscoliotic

d. pigeon

2. WHAT IS THE MAIN CAUSE OF INCREASED VOCAL FREMITUS?

a. inflammatory consolidation of the lobe of the lung

b. pneumothorax

c. hydrothorax

d. obstructive atelectasis

e. emphysema of the lungs

3. WHEN IS THE TYMPANIC PERCUSSION SOUND DETERMINED?

a. over the cavity communicating with the bronchus

b. over the lobar consolidation of the lung

c. with increased airiness of the lungs

d. with hydrothorax

4. WHAT PERCUSSION SOUND IS DETERMINED BY COMPARATIVE PERCUSSION IN A HEALTHY PERSON OVER THE LUNGS?

a. dull

b. tympanic

c. resonance

d. boxed

e. flatness

5. HOW WILL THE LOWER BORDERS OF THE LUNGS CHANGE IN EMPHYSEMA?

a. do not change

b. move up

c. move down

d. are not determined

6. WHAT IS THE NAME OF THE BREATH, WHICH HAS A WAVE-LIKE CHARACTER WITH ALTERNATING PERIODS OF WEAK SURFACE AND MORE DEEP BREATHING?

a. Grock breathing

b. Cheyne-Stokes breathing

c. Kussmaul breathing

d. Biot breathing

7. WHAT IS THE CHARACTER OF PERCUSSION SOUND IN THE PROJECTION OF FOCAL LUNG CONSOLIDATION?

a. tympanic

b. resonance

c. boxed

d. dull

8. WHAT IS THE COMPARATIVE LUNG PERCUSSION?

a. determine the boundaries of the lungs

b. determine the nature of the percussion sound

c. determine the boundaries of the pathological focus

d. to identify superficially located foci

e. to determine the respiratory mobility of the lower edge of the lungs

9. WHAT IS THE NATURE OF PERCUSSION SOUND DETERMINED BY PLEURAL EFFUSION SYNDROME IN THE PROJECTION OF FLUID?

a. flatness

b. dullness

c. dull-tympanic

d. boxed

e. resonance

10. NAME A SIGN BY WHICH YOU CAN DISTINGUISH THE PLEURAL FRICTION RUB FROM CREPITATION.

a. it is heard at the height of inspiration

b. it is heard only with deep exhalation

c. it is heard both on inspiration and on exhalation

d. it is heard only with deep inspiration

11. WHAT IS THE DEFINITION OF BRONCHOPHONIA?

a. palpatory determination of the voice on the chest

b. determination of the nature of the main respiratory noise

c. determination of the voice on the chest by auscultation

d. determination of side respiratory noises

12. WHAT IS THE MECHANISM OF THE APEX BEAT?

a. increase in the volume of the left ventricle during its diastole

b. contraction of the right ventricle

c. impact of the anterior wall of the left ventricle on the chest wall

d. impact of the right ventricle on the anterior chest wall during its contraction

e. stretching of the aortic mouth when blood is ejected from the left ventricle

13. WHAT CAUSES THE PULSATION IN THE SECOND INTERCOSTAL SPACE TO THE RIGHT OF THE STERNUM?

a. aneurysm of the ascending part of the aorta

b. pulmonary hypertension

c. aneurysm

d. aorta

e. superior vena cava

14. WHERE IS THE APICAL BEAT NORMALLY LOCATED?

a. 1.0 cm outward from the mid-clavicular line in the intercostal space

b. 1.0 – 1.5 cm inward from the left mid-clavicular line in the intercostal space

c. along the circumflex line in the intercostal space

d. 1.0 – 1.5 cm inward from the left mid-clavicular line in the intercostal space the clavicular

line in the IV intercostal space e. in the III and IV intercostal spaces to the left of the sternum

15. WHAT IS THE DIFFERENCE BETWEEN FUNCTIONAL AND ORGANIC MURMURS?

a. constant

b. continuous

c. loud

d. it is not accompanied by other signs of heart damage

e. it has a large area of conduction

16. WHAT METHOD OF INVESTIGATION IS NECESSARY FOR THE DIAGNOSIS OF PERICARDIAL DISEASE?

a. bicycle ergometry

b. FCG

c. echocardiography

d. coronarography

e. Holter monitoring

17. WHAT ARE the ECG SIGNS OF SINUS RHYTHM?

a. the same shape of the P teeth in all leads

b. the same shape of the ventricular complex in all leads

c. positive P wave in front of each ventricular complex in the II lead

d. positive P wave in front of each ventricular complex in the AVR lead 1

18. WHAT IS THE METHOD OF SPHYGMOGRAPHY?

a. graphic representation of blood pressure

b. graphic representation of pulse

c. measurement of venous pressure

d. examination of vessels of the conjunctiva of the eyes

19. WHAT IS THE TIMING OF MURMUR IN MITRAL STENOSIS?

a. mesodiastolic

b. systolic-diastolic

c. protodiastolic

d. systolic

20. WHAT IS THE CAUSE OF THE PROLONGED BLOWING NOISE THAT BEGINS WITH THE I TONE AND RADIATES INTO THE AXILLARY REGION?

- a. aortic stenosis
- b. aortic insufficiency
- c. mitral insufficiency
- d. mitral stenosis
- e. tricuspid valve insufficiency

### *Assessment tool 2*

#### Interview questions

1. Characteristics of complaints, anamnesis in patients with diseases of the upper respiratory tract.
2. Rules of examination of the ear, nose, nasal passages, internal examination of the throat. External palpation of the laryngeal area.
3. Characteristics of the chief complaints, features of the anamnesis of the present disease and the anamnesis of life.
4. Rules of general examination of patients with respiratory diseases. Assessment of the severity of the condition. Possible changes in the level of consciousness. Forced postures.
5. Extrapulmonary manifestations of respiratory diseases: changes in color, turgor and moisture of the skin, changes in nails, hair, cervical veins, lymph nodes, the presence of peripheral edema.
6. Rules of local inspection of patients with respiratory diseases.
7. Rules of chest palpation. Causes of pathological manifestations.
8. Rules of chest percussion. Causes of resonance changes. Box and tympanic percussion sound, reasons. Changes in the position of the upper and lower borders of the lungs, causes. Low lung borders movement.
9. Auscultation of the lungs. Rules for comparative auscultation of the lungs. The main types of breathing: vesicular and bronchial, their physiological and pathological changes. Pathological lung sounds: wheezing, crepitation, pleural friction rub. Bronchophony.
10. Laboratory and instrumental methods in respiratory diseases. CBC, blood chemistry, sputum analysis, pleural fluid, bronchoscopy, lung function test: spirometry, pneumotachometry, computer spirometry, diffuse lung capacity by carbon monoxide, blood gases
11. X-ray examinations. Chest X-ray, X-ray tomography, bronchography, X-ray computed tomography, magnetic resonance imaging, lung scintigraphy, thoracoscopy, mediastinoscopy, angiography of pulmonary and bronchial vessels
12. The main pulmonary syndromes: compaction of lung tissue, respiratory failure, pulmonary emphysema, bronchospastic, cavities in the lung tissue, accumulation of fluid and air in the pleural cavity, lung atelectasis, the presence of adhesions and mooring in the pleural cavity.
13. Respiratory diseases. Lobar and bronchopneumonia. Bronchial asthma, acute and chronic bronchitis, COPD, pulmonary emphysema, bronchiectatic disease, abscess, lung cancer, dry and exudative pleurisy, pneumothorax. Etiology, pathogenesis, clinical manifestations, laboratory and instrumental diagnostics, principles of treatment.
14. Questioning a patient with diseases of the cardiovascular system. Characteristics of the chief complaints. Rules for describing the pain syndrome. Features of the anamnesis of the present disease and the anamnesis of life.
15. General examination of a patient with pathology of the heart and blood vessels. Assessment of the general condition and consciousness of the patient. The forced position of the patient with various heart diseases. Extracardiac manifestations of heart diseases: discoloration of the skin and mucous membranes, nails, pulsation and swelling of veins, swelling of the face, lower extremities, ascites, etc.
16. Examination of the precordial area. Definition of the apex beat, its characteristics. Detection of chest swelling, pathological pulsations,
17. Palpation of the pulse. Characteristics of the pulse: rhythm, rate, volume, filling and shape of the pulse. Sphygmography.

18. Palpation of the precordial area. Palpation of the apex beat, characteristics of its localization, width, height, strength. Causes of changes in the characteristics of the apical shock.
19. Percussion of the heart borders and vascular fascicle. Rules for determining relative and absolute boundaries.
20. Auscultation of the heart and blood vessels. Rules of auscultation of the heart and blood vessels. Heart tones, mechanisms of their formation. Heart murmurs, classification. Organic and functional murmurs. Systolic and diastolic murmurs. Differences between organic and functional cardiac murmurs. Phonocardiogram for mitral and aortic valvular heart defects.
21. Measurement of blood pressure. Rules and conditions for measuring blood pressure. Additional methods for assessing AD – SMAD.
22. Electrocardiography as the main diagnostic method in cardiology. ECG registration. ECG elements are normal and pathological.
23. Cardiac arrhythmias. Classification, causes of occurrence. ECG-signs of supraventricular and ventricular arrhythmias.
24. ECG in patients with coronary heart disease.
25. Methods of radiologic diagnostics in cardiology. Chest X-ray. Ultrasound of the heart and blood vessels. Angiocardiology. Nuclear magnetic resonance imaging of the heart and large vessels. Radionuclide study of the contractility of the heart. Perfusion scintigraphy.
26. The main clinical syndromes. arterial hypertension, cardiac arrhythmias, myocardial ischemia, insufficiency and stenosis of the mitral, aortic, and tricuspid valves.
27. Diseases of the cardiovascular system. Acute rheumatic fever, acquired heart defects, hypertension, coronary heart disease: angina pectoris, myocardial infarction, cardiac arrhythmias, circulatory insufficiency; myocardial diseases: myocarditis, myocardiodystrophy, pericarditis, infectious endocarditis. Etiology, pathogenesis, clinical manifestations, diagnostic methods.
28. Features of taking history in gastroenterological patients. Characteristics of pain syndrome in diseases of the gastrointestinal tract.
29. Types of dyspepsia. Types of dysphagia. Characteristics of belching, heartburn, nausea, vomiting, etc. Manifestations of gastrointestinal bleeding: hematemesis, melena, hematochezia. Types of diarrheas, causes.
30. Examination of patients with pathology of the digestive organs. General and abdominal examination, superficial and deep, sliding, topographic methodical palpation, percussion, abdominal auscultation.
31. Taking history of the patient, the chief complaints, features of anamnesis in
32. General and local inspection in gastrointestinal diseases.
33. Superficial palpation and percussion of the abdomen according to Mendel, detection of "the noise of the plenum". Deep palpation of the large curvature of the stomach.
34. Laboratory and instrumental investigations in diagnosis making of gastrointestinal diseases. Gastric juice secretion analysis, endoscopy, X-ray diagnostics, diagnosis of HP infection.
35. Diseases of the digestive system. Acute and chronic gastritis, peptic ulcer disease. Etiology, pathogenesis, clinical manifestations, diagnostic methods, principles of treatment.
36. Rules for the diagnosis of diseases of the pancreas and intestines. Taking history. Features of pain syndrome. Symptoms of dyspepsia.
37. Physical methods of examination in diseases of the pancreas and intestines.
38. Laboratory investigations in diagnosis making of pancreatic disease. Examination of feces, the main coprological syndromes; determination of the activity of blood enzymes.
39. Methods of radiation diagnostics in diseases of the pancreas. Overview radiography of the abdominal cavity, ultrasound, CT scan, NMR tomography.
40. Instrumental methods of intestinal investigations. Endoscopy. Colonoscopy.
41. The main syndromes in diseases of the pancreas and small intestine. Malabsorption, celiac disease. Mechanisms of development, clinical manifestations.
42. Pancreatitis. Pancreatic cancer. Inflammatory nonspecific bowel diseases: Crohn's disease, ulcerative colitis; functional bowel diseases: irritable bowel syndrome. Etiology, pathogenesis, clinical manifestations, diagnostic methods.

43. Diagnosis making of diseases of the biliary system and liver. Taking history. Features of complaints and anamnesis. Characteristics of pain syndrome, dyspeptic symptoms, neuropsychiatric and vegetative symptoms.
44. Physical methods in the diagnosis making of liver and gallbladder diseases.
45. Laboratory and instrumental diagnostics making of diseases of the biliary system. Duodenal intubation, rules, indications, stages of bile excretion. Liver function tests.
46. Differential diagnosis of jaundice.
47. Methods of X-ray diagnostics in diseases of the liver and biliary tract.
48. Functional diseases of the biliary tract, cholelithiasis, acute and chronic cholecystitis. Etiology, pathogenesis, clinical manifestations, diagnostic methods.
49. The main liver syndromes. Inflammation in the liver, jaundice, cholestasis, cholemia, cytolysis, portal hypertension, hypersplenism, hepatolienal, hepatocellular insufficiency. Clinical manifestations, diagnostic methods.
50. Hepatitis, cirrhosis of the liver, metabolic diseases of the liver. Etiology, pathogenesis, clinical manifestations, laboratory and instrumental diagnostics, principles of treatment.
51. Rules for the diagnosis of diseases of the urinary system. Taking history. Features of complaints. Features of the anamnesis. Characteristics of the pain syndrome. Mechanisms of renal edema. Features of arterial hypertension syndrome. Gastrointestinal complaints in kidney diseases.
52. Physical methods in the diagnosis of kidney diseases. Palpation, percussion, auscultation of the kidneys. Rules of the event. Diagnostic importance. The symptom of Pasternatsky F.N.
53. Laboratory and instrumental research methods in the diagnosis of kidney diseases. Urine examination: clinical analysis, Nechiporenko test, Addis-Kakovsky test. Functional methods of kidney examination: Zimnitsky test.
54. Methods of radiation diagnostics in nephrology.
55. The main diseases of the kidneys and urinary system. Acute and chronic glomerulonephritis, pyelonephritis, urolithiasis. Etiology, pathogenesis, clinical manifestations, laboratory and instrumental diagnostics.
56. Rules for the diagnosis of diseases of the organs of hematopoiesis. Taking history. Features of complaints: general and specific. Anamnesis features.
57. Physical examination methods in the diagnosis of blood diseases.
58. Laboratory and instrumental methods of investigation. Clinical blood analysis, bone marrow analysis, studies for hemorrhagic syndrome.
59. The main clinical syndromes in diseases of the hematopoietic organs: anemia syndrome, hemorrhagic syndrome, myeloproliferative, lymphoproliferative syndromes. Clinical manifestations, laboratory diagnostics.
60. Anemia: posthemorrhagic, iron deficiency, hemolytic, aplastic.
61. Rules for the diagnosis of diseases of the endocrine glands. Features of complaints, anamnesis.
62. Physical methods in the diagnosis of diseases of the endocrine glands. Inspection. Diagnostic significance of the endocrine patient's facial expression and habitus.
63. Laboratory and instrumental methods of investigations in endocrinology.
64. Methods of radiation diagnostics in endocrinology.
65. The main clinical syndromes in endocrinology. Hyperglycemia, glucosuria, hypoglycemia, hyperthyroidism syndrome, hypothyroidism. Clinical manifestations, laboratory and instrumental diagnostics.
66. Diffuse toxic goiter, myxedema, diabetes mellitus. Diabetic comas. Etiology, pathogenesis, clinical manifestations, diagnostic methods, principles of treatment.
67. Basic rules for the diagnosis of diseases of joints and muscles. Questioning. Features of complaints and anamnesis.
68. Physical methods of examination in rheumatology. General and local inspection. Examination of joints, muscles, bones. Palpation. Conducting special motor tests.
69. Laboratory and instrumental methods of investigations in rheumatology.
70. Methods of radiation diagnostics in rheumatology.
71. Rheumatoid arthritis, osteoarthritis, gout. Etiology, pathogenesis, clinical manifestations, laboratory and instrumental diagnostic methods, principles of treatment.

72. Urgent conditions in pulmonology. Bronchial asthma attack, status asthmaticus. Pneumothorax. Causes, mechanisms of development, clinical manifestations, diagnostic methods, emergency care.
73. Emergency conditions in cardiology. Pulmonary embolism. Acute cardiac arrhythmias and conduction disorders. Acute vascular insufficiency. Acute coronary insufficiency. Acute left ventricular failure (cardiac asthma). Hypertensive crisis. Causes, mechanisms of development, clinical manifestations, diagnostic methods, emergency care.
74. Urgent conditions in gastroenterology. Acute gastric bleeding. Biliary colic. Acute pancreatitis. Causes, mechanisms of development, clinical manifestations, diagnostic methods, emergency care.
75. Emergency conditions in nephrology. Renal colic. Acute renal failure. Causes, mechanisms of development, clinical manifestations, diagnostic methods, emergency care.
76. General emergency conditions. Anaphylactic shock. Causes, mechanisms of development, clinical manifestations, diagnostic methods, emergency care.

*Assessment tool 4*

Solving a case-task (see section 4.1)

*Assessment tool 5*

Writing a patient's case report by disease

1. Community-acquired pneumonia
2. Nosocomial pneumonia
3. COPD
4. Bronchial asthma
5. IHD: myocardial infarction
6. IHD: angina pectoris
7. IHD with rhythm disturbances
8. Rheumatic heart disease, mitral, aortic defects
9. Acute and chronic gastritis
10. Peptic ulcer disease
11. Chronic cholecystitis
12. Chronic pancreatitis
13. Crohn's disease
14. Nonspecific ulcerative colitis
15. Acute and chronic pyelonephritis
16. Acute and chronic glomerulonephritis
17. Chronic kidney disease
18. Iron deficiency anemia
19. B12-deficiency anemia
20. Diabetes mellitus
21. Thyroid diseases with hyperthyroidism syndrome
22. Thyroid diseases with hypothyroidism syndrome
23. Obesity
24. Hypertensive crisis
25. Acute coronary insufficiency
26. Acute left heart and right heart failure
27. Bronchial asthma attack
28. Renal colic
29. Biliary colic
30. Acute allergic reactions

**4.1. Tasks for the assessment of competence UC-1,4,5 GPC-1,4,5,10 PC-5,6,7:**

<https://sdo.pimunn.net/course/view.php?id=1102>

Task 1.

Patient V., 37 years old, complained of daily attacks of suffocation, especially difficult exhalation, general weakness, malaise. After the attack, a small amount of viscous vitreous sputum

departs. She has been ill for 3 years, these complaints occur annually in June, in July all symptoms disappear. She associates his illness with the loss of a loved one. There are two children of 9 and 12 years old who also have attacks of suffocation. The mother and grandmother also had attacks of suffocation. The patient has an allergy to strawberries, penicillin. Objectively: the condition of moderate severity. The patient is sitting with her hands resting on the edge of the chair. The skin is clean, with a cyanotic tint. The chest is barrel-shaped, the supra- and subclavian areas are smoothed, the intercostal spaces are expanded, there is swelling of the cervical veins, the participation of auxiliary muscles, intercostal retraction. Breathing is loud, with whistling and noise, 26 times per minute. With percussion, a box sound is noted, the lower border of the lungs along the mid-axillary line determines at the level of the 9th rib, the excursion of the lungs along this line is 2 cm. Against the background of weakened vesicular respiration with an elongated exhalation, whistling wheezes are heard. BDD - 26 in min. Heart tones are rhythmic, clear, 92 in min., blood pressure 110/70 mmHg. Abdominal pathology was not detected. The peak expiratory rate at peak flowmetry is 70% of the required.

#### Questions

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

#### Standard answers

1. Bronchospasm syndrome, respiratory failure syndrome.
2. Atopic bronchial asthma, moderate severity. Emphysema of the lungs. Substantiation: 1) anamnesis data: daily attacks of suffocation, expiratory dyspnea, the release of a small amount of viscous vitreous sputum; the association of the onset of seizures with the flowering period; the association of the onset of the disease with a psychoemotional shock; hereditary predisposition (attacks of suffocation in close relatives); the presence of allergies to food and medicines; 2) objective data: during examination: forced position occupied to facilitate breathing, cyanotic skin tone, barrel-shaped chest, smoothness of supra- and subclavian pits, expansion of intercostal spaces, intercostal retraction, swelling of cervical veins, BDD - 26 in min., with lung percussion - box sound, lowering of the lower border of the lungs, decreased lung excursion; during auscultation - wheezing on the background of weakened vesicular breathing, elongation of exhalation.
3. CBC: leukocytosis and an increase in ESR, an increase in the number of eosinophils. Biochemical blood test: increase in the level of immunoglobulins. Microscopic examination of sputum: eosinophils, collapsing eosinophils (Charcot-Leyden crystals), casts of small bronchi (Kurschmann spirals). Lung function tests: spirometry (decrease in the Tiffno index), peak flowmetry (low PEFV at the level of small or medium bronchi). Chest radiography: with emphysema, increased transparency of the pulmonary fields, expansion of intercostal spaces, low standing and limited mobility of the diaphragm are determined.
4. Asthmatic status. Respiratory failure.
5. The patient is temporarily disabled. It needs the appointment of basic treatment of bronchial asthma, consultation with an allergist. Principles of treatment: semi-bed rest, hypoallergenic diet, short- and prolonged-acting sympathomimetics; combined medications; mast cell membrane stabilizers; inhaled glucocorticosteroids; respiratory gymnastics, massage, psychotherapy, spa treatment.

The prognosis for life is favorable in the case of anti-relapse treatment.

Prevention of exacerbations: eliminate the effect of allergens. During the flowering period of herbs, the window panes should be covered with wet gauze, wet cleaning of rooms should be carried out daily, carpets should be removed; peak flowmetry should be carried out in order to monitor bronchial patency. If the indicators of peak expiratory velocity deteriorate, treatment should be adjusted; dispensary observation, patient training in asthma schools; specific hyposensitization.

#### Task 2.



Patient B., 43 years old, complained of general weakness, malaise, increased fatigue, decreased performance, fever, cough with mucosal discharge-purulent sputum, shortness of breath. The deterioration occurred 5 days ago. He has been ill for 5 years; exacerbations occur periodically in the autumn-spring period and are often associated with hypothermia. Mucopurulent sputum is released during exacerbations for several months in a row in moderate amounts. The patient has been smoking 1 pack of cigarettes a day for 20 years. Objectively: the temperature is 37.50 C. The general condition is satisfactory. The skin is clean. The percussive sound above the lungs is clear. Breathing is weakened, vesicular, on both sides different-sized wet wheezes are detected. BDD 22 in min. The heart tones are clear, rhythmic. Heart rate 72 in min. Blood pressure 120/80 mm Hg. Abdominal pathology was not detected.

#### Questions

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

#### Standard answers

1. Intoxication syndrome, bronchial narrowing syndrome and accumulation of exudate in the bronchial lumen.
  2. Chronic bronchitis in the acute stage. Substantiation: 1) anamnesis data: intoxication syndrome, symptoms of bronchial lesion (cough with mucosal discharge-purulent sputum, shortness of breath); duration of the disease (5 years); association of exacerbation with hypothermia; sputum discharge in the acute stage; presence of bad habits: smoking. 2) objective data: subfebrile temperature; during auscultation: breathing is weakened, various wet wheezes are heard on both sides.
  3. CBC: leukocytosis, increased ESR, microscopic and bacteriological sputum examination (identification of the pathogen and determination of its sensitivity to antibiotics), X-ray examination of the lungs: pulmonary pattern accentuation.
  4. Emphysema of the lungs, pneumosclerosis, bronchopneumonia, bronchiectasis, respiratory failure, chronic pulmonary heart.
  5. The patient is temporarily disabled, needs outpatient treatment. Principles of treatment: bed rest, frequent ventilation of the room, diet No. 15, enriched with vitamins, abundant warm drink, antibacterial therapy, bronchodilators, expectorants, respiratory gymnastics, physiotherapy, spa treatment in remission. The prognosis for life is favorable, but unfavorable for a full and lasting recovery.
- Prevention. Primary: rational nutrition, smoking cessation, timely treatment of bronchitis exacerbation. Secondary: dispensary monitoring of patients with chronic bronchitis, rational employment, excluding the effect of unfavorable production factors (dust, toxic substances), sanitation of foci of chronic infection, timely treatment of infectious respiratory tract lesions, sanatorium treatment.

#### Task 3.

Patient E., 46 years old, was admitted to the hospital with complaints of headache, high fever, sharp stabbing pain in the right half of the chest, aggravated by coughing, shortness of breath on inhalation, cough with rust-colored sputum. The disease began acutely, after hypothermia. Ill 2-day. Objectively: the temperature is 39 - 40C. The general condition is serious. The face is hyperemic, herpetic rashes are detected on the lips. BDD - 28 in min. On examination, the right half of the chest lags behind when breathing, when palpation, the vocal tremor on the right is increased, when percussion is detected on the right above the lower lobe, sound bluntness is determined, when auscultation is on the right above the lower lobe, breathing is weakened, vesicular, crepitation is determined. The heart tones are muted. Pulse 110 v min., rhythmic, blood pressure 110/70 mmHg. Abdominal pathology was not detected.

#### Questions

1. Name and substantiate the syndromes.

2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

Standard answers

1. Intoxication syndrome, pulmonary tissue consolidation syndrome, respiratory failure syndrome.

2. Severe croup pneumonia. Substantiation: 1) anamnesis data: intoxication syndrome, chest pain, aggravated by coughing, shortness of breath, cough with "rusty sputum"; acute onset of the disease; 2) objective data: fever, on examination: facial hyperemia, herpetic rashes on the lips, lagging of the affected side of the chest when breathing; with percussion: blunting sound over the lower lobe of the right lung; palpation - increased vocal tremor; auscultation - weakened vesicular breathing, crepitation.

3. CBC: neutrophilic leukocytosis with a shift of the leukocyte formula to the left, an increase in ESR. Microscopic and bacteriological examination of sputum: identification of the pathogen and determination of its sensitivity to antibiotics. Chest X-ray: shading of the corresponding lobe of the lung.

4. Pleurisy, acute respiratory failure, collapse with a critical decrease in temperature, myocarditis, focal nephritis, meningitis, heart failure, lung abscess.

5. The patient needs inpatient treatment.

Principles of treatment: strict bed rest, supervision of the staff on duty. a diet enriched with vitamins, semi-liquid, nutritious food, copious drinking, antibacterial therapy, oxygen therapy, expectorants.

The prognosis for recovery is favorable with timely and effective treatment.

#### Task 4

Patient G., 26 years old, complained of general weakness, fever, cough with mucopurulent sputum, shortness of breath. I got sick 10 days ago: I had a runny nose, a cough, a headache, I was treated myself, I didn't take a sick leave. It got worse yesterday - the temperature rose again to 39 - 40C. Objectively: General condition of moderate severity. The temperature is 38.6 C. The skin is clean, hyperemia of the face. The number of breaths is 30 per minute. There are no changes during chest examination and palpation. When percussion is performed on the right under the shoulder blade, the percussion sound is dulled. During auscultation in this area, breathing is more rigid, sonorous moist small-bubbly wheezes are heard. The heart tones are muted. Pulse - 98 per minute, rhythmic, satisfactory filling. Blood pressure 110/60 mm Hg. The tongue is overlaid with a white coating. No abdominal pathology was detected.

#### Questions

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

Standard answers

1. Syndromes of intoxication, consolidation of lung tissue, respiratory failure.

2. Right-sided focal pneumonia of moderate severity. Substantiation: 1) anamnesis data: intoxication syndrome; shortness of breath, cough with mucopurulent sputum; gradual onset (after acute respiratory infections); 2) objective data: with percussion - local dulling of percussion sound; with auscultation - harder breathing, sonorous moist small-bubbly wheezing.

3. CBC: neutrophilic leukocytosis with a shift of the leukocyte formula to the left, an increase in ESR. Microscopic and bacteriological examination of sputum: identification of the pathogen and determination of its sensitivity to antibiotics. Chest X-ray: focal shading in the lungs.

4. Lung abscess.

5. The patient needs inpatient treatment. Principles of treatment: bed rest, diet, heavy drinking, antibacterial therapy, oxygen therapy.

The prognosis is favorable for recovery and recovery of working capacity in SV

Task 5.

The doctor was called to the house of the patient Z., 36 years old. The patient complains of a strong cough with the release of a large amount of purulent sputum with an unpleasant fetid odor, fever, malaise, shortness of breath, pain in the right half of the chest. Got sick a week ago after hypothermia. I did not seek medical help, I took aspirin. Yesterday, the condition deteriorated sharply, the cough intensified, a large amount of purulent sputum with an unpleasant odor appeared. Objectively: the temperature is 38.50 C. General condition of moderate severity. The skin is clean. Hyperemia of the face. With percussion of the chest on the right under the scapula in the 7-8 intercostal region, the percussion sound is dulled. For the rest of the pulmonary sound. With auscultation in the area of dullness, bronchial breathing, large- and medium-bubbly moist wheezes are heard. The rest of the breathing is vesicular. The heart tones are muted. Heart rate 102 in min. Blood pressure 100/70 mm Hg. Abdominal pathology was not detected.

Questions

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

Standard answers

1. Syndromes of intoxication, cavitation of lung tissue, respiratory failure.
2. Abscess of the right lung. Substantiation: 1) anamnesis data: intoxication syndrome, shortness of breath, wet cough; sudden appearance of a large amount of purulent sputum; 2) objective data: febrile temperature; on examination: facial hyperemia; with percussion: local dulling of percussion sound; during auscultation: bronchial breathing over a limited area of the lung, wet wheezing.
3. CBC: neutrophilic leukocytosis with a shift of the leukoformula to the left, an increase in ESR. Microscopic (detection of elastic fibers) and bacteriological examination of sputum: identification of the pathogen and determination of its sensitivity to antibiotics. chest X-ray: before the breakthrough of the abscess into the bronchus - rounded shading, after the breakthrough - a rounded cavity with a horizontal fluid level.
4. Pulmonary hemorrhage, the transition to a chronic form, the breakthrough of the abscess into the pleural cavity, the appearance of new abscesses in the lungs, metastasis of abscesses to other organs.

5. The patient needs hospitalization and inpatient treatment. Principles of treatment: bed rest, diet, antibacterial therapy, infusion therapy, postural drainage, therapeutic bronchoscopy. The prognosis is favorable with timely and effective treatment, no complications.

Prevention: early diagnosis, timely adequate treatment of pneumonia, septic conditions; timely extraction of foreign bodies trapped in the respiratory tract; prevention of aspiration of vomit when vomiting occurs in patients who are unconscious; combating bad habits (smoking, alcohol abuse), leading to a decrease in the reactivity of the body; explanation of the principles of rational nutrition, which helps to increase the reactivity of the body and strengthen the protective forces.

Task 6.

Patient I., 29 years old, complained of chills, headache, weakness, dry cough, increasing with deep breathing, heaviness in the right half of the chest, increasing shortness of breath. It is easier for the patient to sit than to lie down. Ill for 2 weeks. Objectively: the temperature is 38.6 C. The condition is of moderate severity. The skin is clean. When examining the chest, the lag of the right half during breathing, during palpation, the vocal tremor on the right is weakened. With percussion on the right along the mid-muscular line from the 7th rib and further down to the spine, the percussion sound is dull. Breathing in this area is sharply weakened. BH 28 in min. The left border of

relative cardiac dullness is 1 cm outwards from the midclavicular line. The heart tones are muted, rhythmic. Heart rate 110 v min. BP 90/60 mm Hg. Abdominal pathology was not detected.

#### Questions

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

#### Standard answers

1. Intoxication syndromes, pleural effusion syndrome, respiratory insufficiency.
2. Exudative pleurisy. Substantiation: 1) anamnesis data: intoxication syndrome, dry cough, increasing shortness of breath, feeling of heaviness in one half of the chest; gradual onset of the disease; forced sitting position; 2) objective data: during examination: lagging breathing and swelling of the affected half of the chest; forced patient sitting position with percussion: dull sound over the affected area, displacement of the left border of the heart; on palpation: weakening of the vocal tremor; on auscultation: breathing over the affected area is sharply weakened.
3. CBC: possible leukocytosis, increased ESR. Chest X-ray: shading in the lower parts of the chest with an oblique upper border, displacement of the mediastinal organs to the healthy side, pleural puncture. Analysis of pleural fluid.
4. Respiratory and heart failure, development of pleural adhesions.
5. The patient should be hospitalized; adequate treatment should be carried out after clarifying the etiology of the disease. Principles of treatment: bed rest (high headboard), a high-calorie diet with sufficient vitamins and proteins, pleural puncture: diagnostic - to clarify the etiology of the disease, therapeutic - to evacuate fluid and facilitate breathing and cardiac activity. Treatment of the underlying disease. During the period of resorption of exudate, in order to avoid the formation of adhesions - breathing exercises, chest massage.

The prognosis is favorable during etiotropic treatment.

#### Task 7.

Patient I., 30 years old, complained of a feeling of fullness, swelling and pain in the epigastric region that occur shortly after eating, frequent belching rotten, notes weight loss, a tendency to diarrhea. Considers himself ill for 5 years. The last 2 days, the deterioration of well-being is associated with an error in the diet (I drank). Bad habits: smokes, drinks alcohol. Objectively: the general condition is satisfactory, the skin is pale, the subcutaneous fat layer is insufficiently expressed. There is no pathology on the part of the cardiovascular system and lungs. The tongue is overlaid with a white coating. The abdomen is swollen, with palpation there is indistinct soreness in the epigastric region. The liver and spleen are not palpable.

#### Questions

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

#### Standard answers

1. Dyspeptic syndrome, malabsorption syndrome, anemia syndrome.
2. Chronic gastritis with secretory insufficiency in the acute stage. Justification: 1) anamnesis data: feeling of fullness and pain in the epigastric region that occur after eating, belching rotten, weight loss; duration of the disease; the connection of exacerbation with errors in the diet; bad habits: smoking, alcohol consumption; 2) objective data: on examination: pallor of the skin, insufficient development of subcutaneous fat, overlaid tongue on palpation: soreness in the epigastric region.

3. CBC: anemia may occur, fractional gastric probing: decrease in hydrochloric acid and pepsin, PH-metry, endoscopic examination of the stomach: atrophy of the mucous membrane, X-ray examination: thinning of the folds of the mucous membrane.

4. Stomach cancer, iron deficiency and B12-deficient anemia, hypovitaminosis.

5. The patient needs outpatient treatment. Principles of treatment: semi-bed rest, diet No. 2, mechanically and thermally gentle, crushed and warm, enzyme preparations during meals: festal, panzinorm, sanatorium treatment.

The prognosis is favorable. With careful observance of the diet, it is possible to achieve a stable remission.

Prevention: primary: compliance with the diet. a varied diet; avoidance of smoking and alcohol abuse; rehabilitation of foci of chronic infection; in the absence of teeth - prosthetics; secondary: dispensary monitoring of patients with chronic gastritis; compliance with dietary recommendations in order to achieve stable remission; careful use of medications that have an irritating effect on the gastrointestinal tract.

Task 8.

Patient A., 36 years old, complained of acute abdominal pain that occurs 30 minutes after eating, vomiting at the height of pain, bringing relief. Sometimes the patient himself causes vomiting after eating to reduce the pain. Appetite is preserved, but due to the appearance of pain after eating, the patient restricts food intake. He has been ill for several years, deterioration is noted in the autumn-spring period, exacerbations are provoked by emotional overload. The patient has been smoking 1 pack of cigarettes a day for 20 years. Objectively: the general condition is satisfactory. The skin and visible mucous membranes are pale, subcutaneous fat is insufficiently developed. Lungs and heart without pathology. The tongue is overlaid with a whitish coating. Palpation of the abdomen shows pain in the epigastric region. The liver and spleen are not palpable.

Questions

1. Name and substantiate the syndromes.

2. Formulate and substantiate the diagnosis.

3. Name the necessary additional investigations.

4. List the possible complications of this disease.

5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

Standard answers

1. Dyspeptic syndrome, pain syndrome, seasonal exacerbation syndrome.

2. Stomach ulcer in the acute stage. Substantiation: 1) anamnesis data: intense "early" abdominal pain, connection with food intake, heartburn, acid belching, sometimes nausea and vomiting, bringing relief; self-induced vomiting at the height of pain, appetite preserved; seasonality of exacerbations; connection of exacerbations with psychoemotional overload; bad habits - smoking; 2) objective data: on examination: pallor of the skin and mucous membranes, insufficient development of subcutaneous fat; on palpation: soreness in the epigastric region.

3. CBC: there may be anemia, fractional gastric probing: normal or low acidity, fecal analysis for hidden blood, X-ray examination of the stomach using a contrast agent: a "niche" symptom, endoscopic examination of the stomach with a targeted biopsy, analysis for helicobacter.

4. Bleeding, perforation, penetration, pylorostenosis, malignancy.

5. The patient needs hospitalization and inpatient treatment. Principles of treatment: bed rest, diet, eradication therapy, antisecretory drugs, prostaglandin analogues, bismuth preparations. The prognosis for life is favorable. With effective treatment, elimination of provoking factors and absence of complications, stable remission can be achieved.

Prevention: compliance with the diet, exclusion of smoking and alcohol abuse, strict adherence to dietary recommendations, dispensary monitoring of patients with peptic ulcer disease, anti-relapse treatment.

Task 9.

Patient O., 20 years old, turned to with complaints of severe abdominal pain that occurs 3-4 hours after eating, on an empty stomach, often at night, the pain goes away after taking milk. There is a tendency to constipation, weight loss. Appetite is preserved. He considers himself sick for a year.

From the anamnesis it turned out that the patient smokes a lot, abuses alcohol. Objectively: the general condition is satisfactory, the skin is pale, subcutaneous fat is developed satisfactorily. There is no pathology on the part of the lungs and cardiovascular system. The tongue is overlaid with a white-yellow coating. When palpating the abdomen, there is a sharp soreness to the right of the midline above the navel. The liver and spleen are not palpable.

#### Questions

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

#### Standard answers

1. Dyspeptic syndrome, a typical pain syndrome.
2. Peptic ulcer of the duodenum in the acute stage. Substantiation: 1) anamnesis data: abdominal pain "late", "hungry", "nocturnal", pass after taking milk, a tendency to constipation; weight loss on the background of preserved appetite; bad habits: smoking, alcohol abuse; 2) objective data: on examination: pallor of the skin, overlaid tongue; on palpation: sharp abdominal pain in the projection of the duodenum.
3. General blood test: anemia may occur, fractional gastric probing: increased acidity, fecal analysis for hidden blood, X-ray examination: "niche" symptom, endoscopic examination, PH-metry, tests for helicobacter.
4. Bleeding, perforation, penetration, malignancy.
5. The patient needs hospitalization and inpatient treatment. Principles of treatment: regimen, diet, eradication therapy, antisecretory drugs, prostaglandin analogues, bismuth preparations. The prognosis for life is favorable. With effective treatment, elimination of provoking factors and absence of complications, stable remission can be achieved.

Prevention: compliance with the diet, exclusion of smoking and alcohol abuse, strict adherence to dietary recommendations, dispensary monitoring of patients with peptic ulcer disease, anti-relapse treatment.

#### Task 10.

Patient B., 52 years old, complained of general weakness, sharp weakness, malaise, nausea, a feeling of heaviness in the right hypochondrium, flatulence, itching, aching pains in the right hypochondrium, increasing after taking fatty foods and physical exertion, nosebleeds. From the anamnesis it turned out that the patient had been drinking alcoholic beverages in large quantities for many years. Objectively: the temperature is 36.90 C. General condition of moderate severity. The skin and visible mucous membranes are yellowish-orange, traces of scratching on the skin are visible, there are brown crusts in the right nasal passage. The lips are bright, shiny, the tongue is smooth, moist. Palms are hyperemic. There are 2 vascular asterisks on the skin of the breast, dilated and convoluted subcutaneous veins on the skin of the abdomen around the navel. There is a lack of hair in the armpits, an increase in the mammary glands. Subcutaneous fat is insufficiently developed. Breathing is weakened. The heart tones are rhythmic, muted. Heart rate 92 in min., blood pressure 140/90 mm Hg. The abdomen is enlarged in size, with palpation there is slight soreness in the right hypochondrium. The liver protrudes 5 cm from under the edge of the costal arch along the midclavicular line, painful, dense, the surface is uneven. The spleen protrudes from under the edge of the costal arch by 2 cm, painless.

#### Questions

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

### Standard answers

1. Syndromes: portal hypertension, jaundice, hepatosplenomegaly, endocrine disorders, liver failure.

2. Portal cirrhosis of the liver. Justification: 1) anamnesis data: weakness, malaise, nausea, feeling of heaviness and aching pains in the right hypochondrium, increasing after taking fatty foods and physical exertion, flatulence, itching, nosebleeds; bad habits - alcohol abuse; 2) objective data: on examination: jaundice, traces of scratching on the skin, signs of a former nosebleeds, "hepatic" skin signs, red lips, "hepatic" palms and tongue, vascular "asterisks", signs of portal hypertension - a symptom of "Medusa's head"; lack of hair in the armpits, gynecomastia; abdominal enlargement; palpation: enlargement of the liver and spleen.

3. CBC: anemia is possible, biochemical blood analysis: changes in the content of bilirubin, protein fractions, enzymes, decrease in albumin, increase in prothrombin time, radioisotope examination of the liver and spleen, puncture liver biopsy, liver ultrasound, laparoscopy, MRI with contrast.

4. Bleeding (esophageal, gastrointestinal), liver failure.

5. The patient needs hospitalization and inpatient treatment. Principles of treatment: bed rest, diet No. 5, hepatoprotectors, unsaturated fatty acids, B vitamins, diuretics, liver transplantation.

The prognosis for recovery is unfavorable. In case of permanent disability, the issue of transferring the patient to disability should be resolved.

### Task 11.

Patient V., 35 years old, complained of dull, aching pains in the right hypochondrium, which usually occur 1-3 hours after taking copious, especially fatty foods and fried dishes, a feeling of bitterness in the mouth, belching air, nausea, bloating, unstable stool. She has been ill for several years. Objectively: the temperature is 37.20 C. The general condition is satisfactory. The skin and visible mucous membranes are clean, pink in color. Subcutaneous fat is excessively developed. Lungs and heart without pathology. The tongue is overlaid with a yellowish-brown coating. The abdomen is soft, moderately painful on palpation in the right hypochondrium. The liver and spleen are not palpable.

#### Questions

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

### Task 12.

The doctor was called to the home of a 62-year-old patient who complains of acute pains in the right hypochondrium with irradiation to the right shoulder blade, right shoulder, a feeling of heaviness in the epigastric region, nausea, vomiting. Got sick at night, suddenly. I ate roast goose the night before. Such pains for the first time. Objectively: the temperature is 37.60 C. General condition of moderate severity. The patient is tossing and moaning. Slight jaundice of the sclera. Subcutaneous fat is excessively developed. There is no pathology on the part of the cardiovascular system and lungs. The tongue is overlaid with a white coating. The stomach is swollen. On palpation, sharp soreness and muscle tension in the right hypochondrium. There is pain when pounding along the right costal arch, when pressing between the legs of the right sternocleidomastoid muscle.

#### Questions

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

### Task 13.

A 43-year-old woman turned to the doctor with complaints of prolonged aching pains to the left of the navel, radiating into the back, under the left shoulder blade, which occur after eating fatty dishes. He notes a decrease in appetite, nausea, a feeling of heaviness after eating in the epigastric region. These symptoms have been bothering for 4 months. He has been suffering from chronic cholecystitis for many years. Objectively: the temperature is 37.20 C. The condition is satisfactory. The skin is clean, dry, with a jaundiced tinge. Subcutaneous fat is excessively developed. Lungs and heart without pathology. The tongue is overlaid with a whitish coating. The abdomen is soft, moderately painful in the upper half and in the left hypochondrium.

#### Questions

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

### Task 14.

A 20-year-old patient was admitted to the department with complaints of aching pains in the heart area, interruptions in the work of the heart, shortness of breath with little physical exertion, cough with sputum of a crimson hue, swelling on the legs, increasing in the evening, heaviness in the right hypochondrium, inability to be in a horizontal position for a long time. He has been suffering from rheumatism since the age of 12, and has been treated in hospital several times. He feels interruptions for six months. Objectively: pale, cyanotic blush on the cheeks. The cervical veins are swollen. The pulse is arrhythmic, low filling, 90 per minute. The boundaries of the heart are enlarged up and to the right, the rhythm is incorrect, the heart rate is 112 in 1 minute more often than the pulse. I the tone is clapping, diastolic noise at the top. The liver protrudes 5 cm from under the edge of the costal arch, painful on palpation. Swelling on the shins.

#### Questions

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

### Task 15.

The rheumatologist was contacted by patient T., 39 years old, with complaints of chills, sweating, fever during the month up to 37.5-38.0. A history of rheumatism, mitral valve insufficiency, for which he is registered with a rheumatologist. It is known from the anamnesis that he underwent a tooth extraction a few weeks ago. Objectively: general condition of moderate severity, pallor of the skin with a moderate jaundice tinge, scattered single petechial rash on the skin of the abdomen and painful red nodules on the palms. The pulse is rapid, rhythmic, satisfactory filling. The heart is expanded to the left - 2 cm outwards from the mid-clavicular line, the apical thrust in the area of the 6th intercostal space. I tone is weakened at the apex, II tone is weakened at the aorta. Systolic noise is heard at the apex and diastolic noise in the second intercostal space on the right. BP 150/60 mmHg Abdomen: moderately enlarged liver and spleen.

#### Questions

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.



5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

#### Task 16.

An ambulance doctor was called to the patient K., 62 years old. The patient complains of a sharp pressing and burning pain behind the sternum, which spreads to the left arm, neck, jaw and sharply intensified during movement. The patient also notes a sharp weakness, dizziness, inability to take a horizontal position due to severe suffocation in the supine position, interruptions in the work of the heart. The pain occurred suddenly when the patient was lying on the couch and watching TV. Objectively: the condition of moderate severity, moderate cyanosis and pallor of the skin, pulse is frequent, irregular, 100 per minute. Heart: the left border is expanded, at the top of the I tone is weakened, the II tone is strengthened on the pulmonary artery, tachycardia. During auscultation of the lungs, moist medium-bubbly wheezes are heard in the scapular region on both sides.

#### Questions

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

#### Task 17.

A 47-year-old patient was admitted to the hospital from an outpatient appointment at the polyclinic, where he complained of compressive pains behind the sternum that occur when walking at an average pace after 500 m or when climbing the stairs to the 3rd floor, passing through 1-2 minutes of rest. For the first time, pain behind the sternum appeared 2 years ago, but the patient did not associate their appearance with a heart disease, he did not contact doctors. The real deterioration came during the week, when the attacks of chest pains became more frequent, began to occur with less stress – when walking calmly after 50-100 m, there were attacks of compressive pains at rest. It is known from the anamnesis that the patient suffers from arterial hypertension with maximum blood pressure figures – 170/100 mm Hg. The mother and father of the patient suffer from arterial hypertension, there are cases of sudden death among relatives.

#### Questions

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

#### Task 18.

Patient M. 52 years old accountant, hospitalized with complaints of irregular heartbeat, general weakness, dizziness, fatigue, shortness of breath when walking at an accelerated pace. Anamnesis of the disease: for 15 years, he notes an increase in blood pressure to a maximum of 190/120 mm Hg. The deterioration of the condition is noted within 3 days, when the above complaints appeared for the first time in his life. Given their progressive nature, I called an ambulance. Objectively: consciousness is clear, active. There is no swelling. Height - 178 cm, weight - 107 kg. Deposition of subcutaneous fat layer on the thighs and abdomen. Skin with high humidity. The chest is hypersthenic. There is vesicular breathing in the lungs, no wheezing. The area of the heart is not changed. The left border of the heart is 2 cm outside of the mid-clavicular line in the V intercostal space on the left. The heart tones are irregular. Heart rate - 121 beats per minute. Blood pressure at rest while sitting is 170/115 mm Hg. The pulse on the radial arteries is symmetrical, irregular, uneven with a frequency of 100 beats per minute.

#### Questions

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

#### Task 19.

Patient M., 68 years old, went to the doctor with complaints of shortness of breath with little physical exertion, palpitations, heart failure, general weakness, swelling on the legs. Anamnesis of the disease: The increase in blood pressure marks about 18 years, was treated irregularly. For 10 years, they have been worried about interruptions in the work of the heart, a feeling of palpitation, shortness of breath with moderate physical exertion. He was repeatedly treated in the hospital. During 2 weeks, he noted a deterioration in well-being: shortness of breath, palpitations, general weakness increased, pronounced swelling on the legs was observed. From the anamnesis of life. Smoked for more than 35 years up to 20 cigarettes a day. My father died at the age of 50 from a stroke. Objectively: The condition is serious. Consciousness is clear. Increased nutrition (BMI = 31.2 kg/m<sup>2</sup>). Acrocyanosis. Pronounced swelling on the lower extremities. BH 24 in 1 minute. In the lungs, vesicular breathing is weakened. In the lower parts, moist, silent, small-bubbly wheezes are heard. The apical thrust is located in the V intercostal space 1 cm outwards from the left mid-clavicular line. Spilled, weakened, low, not resistant. The left border of the relative dullness of the heart is shifted to the left. Heart tones are muted, arrhythmic, heart rate 115 per minute, PS – 92 per 1 minute. Blood pressure 160 and 100 mmHg. The tongue is moist, clean. The abdomen is enlarged in volume due to subcutaneous fat. When the stomach is soft, painless. The size of the liver according to Kurlov is 13x12x11 cm.

#### Questions

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

#### Task 20.

A 32-year-old patient called the SMP for palpitations, dizziness, weakness. The palpitation attack occurred for the first time, about 2 hours ago, against the background of emotional stress. On examination, there are no signs of circulatory insufficiency. Tremor of the fingers, The boundaries of the heart are not expanded. The heart tones are loud, the pulse is 200 per minute, rhythmic. Blood pressure — 140/90 mm Hg. Urination is frequent, abundant, painless. On the ECG: the rhythm is correct, 200 per minute, the P wave in the II and III leads is negative. The ventricular complex of the usual form.

#### Questions

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

#### Task 21.

A 70-year-old patient complains of palpitations, shortness of breath at rest. It is known from the anamnesis that she has been suffering from arterial hypertension for many years, coronary heart disease (suffered a myocardial infarction). Objectively: sitting with his legs down, his hands resting on the surface of the bed. Cyanotic skin, acrocyanosis, swelling of the feet, lower third of the shins. When palpating the heart area, the apical push is determined in the IV intercostal space along the

anterior axillary line. With auscultation of the heart, the rhythm of the gallop, the I tone at the apex is weakened, the emphasis is II on the pulmonary artery, a systolic decreasing noise at the apex is determined with conduction to the axillary region. During auscultation of the lungs, weakened vesicular breathing, moist, inaudible wheezing in the lower parts.

#### Questions

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

#### **4.2. Control work for the assessment of competence UC-1,4,5 GPC-1,4,5,10 PC-5,6,7:**

<https://sdo.pimunn.net/course/view.php?id=2836>

#### Variant 1

##### Task 1.

A 50-year-old patient, a farmer, complains of attacks of suffocation at night, lethargy and irritability in the morning, drowsiness in the afternoon. Outside of seizures, he considers himself healthy. He believes that he got sick a year ago, when for the first time at night he suddenly experienced a feeling of lack of air. In the future, the attacks began to recur with increasing frequency. I noticed that seizures happen when he sleeps on a feather bed. When you change the place of sleep, it becomes easier. From the anamnesis of life: grew up and developed normally. He does not remember diseases in childhood. There were no injuries or operations. He has been engaged in agriculture since the age of 28. The living conditions are good. He denies bad habits. The patient's mother suffers from bronchial asthma. Allergic history: allergy to honey, bee stings (itching, feeling of heat, weakness, malaise, sneezing, stuffiness and copious watery discharge from the nose, difficulty breathing, especially when working in the field).

#### Questions

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

##### Task 2.

The patient is 20 years old. University student. Complains of nausea, vomiting, cramping pains in the epigastric region and throughout the abdomen. Twice there was a liquid stool of light color with a fetid smell. The temperature is 37.4 °C. Feels weak. He became acutely ill. The night before I was at a party, where I ate fried meat with spicy seasonings, cream cakes, drank sweet carbonated drinks, beer. Previously, there were no such phenomena, I was not ill with any other diseases.

#### Questions

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

##### Task 3.

Patient K., 50 years old, turned to the district doctor in connection with the first attack of palpitations, accompanied by muscle trembling, weakness, slight difficulty breathing. The attack

occurred about 2 hours ago with severe emotional stress. Previously, with regular medical examination, no diseases were detected, blood pressure was always within the norm. On previously taken ECGs without pathological changes. Very significant physical activity tolerates well. On examination: consciousness is clear. The skin is of normal color and humidity. Vesicular respiration in the lungs, BDD - 18 per minute. The limits of relative cardiac dullness are within normal limits. Heart tones are arrhythmic, there is no noise, heart rate is 144 beats per minute, pulse is 108 per minute. Blood pressure - 130/80 mm Hg. The liver is not enlarged. There are no peripheral edema. Body temperature 36.9 °C.

#### Questions

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

#### Task 4.

The patient is 35 years old, called the SMP to the house in connection with complaints of palpitations. In the anamnesis - for 5 years 3-4 attacks of palpitations, lasting up to 30 minutes, passing independently, accompanied by trembling and profuse urination. I didn't go to the doctor. Upon examination, the condition is satisfactory. There are no signs of circulatory insufficiency. Heart tones are muted, the rhythm is correct, 180 per minute, blood pressure is 110/60 mm Hg.

#### Questions

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

#### Task 5.

A 65-year-old patient, a pensioner, was admitted to the clinic with complaints of a rare pulse, interruptions in the work of the heart, a feeling of fading and stopping, a feeling of lack of air when climbing 1 flight of stairs, pressing pains behind the sternum during normal physical exertion, relieved by taking Nitroglycerin after 1-2 minutes; short-term episodes of loss of consciousness. From anamnesis: four years ago he suffered a myocardial infarction. A year later, anginal pains began to appear with normal physical exertion. A week ago, I felt interruptions in the work of the heart, inspiratory shortness of breath, noted short-term episodes of loss of consciousness, which was the reason for hospitalization. Objectively: the condition of moderate severity, acrocyanosis, no edema. In the lower parts of the lungs there is a small number of silent, small-bubbly wheezes. Heart tones are deaf, arrhythmic, heart rate - 42 beats per minute, Ps - 42 per minute. AD - 110/65 mmHg. The abdomen is soft, painless. The liver is 2 cm below the rib arch, its edge is smooth, rounded, slightly painful.

#### Questions

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

#### Task 6.

A 75-year-old patient at the reception of a district therapist complains of dizziness attacks, sometimes with short-term loss of consciousness, which have become more frequent over the past

month. In addition, there is shortness of breath with little physical exertion and swelling on the legs, which also appeared about a month ago and subsequently intensified. Anamnesis: he considers himself a patient for about 10 years, when compressive pain in the heart area and shortness of breath appeared for the first time when walking up to 200 m, the pain is effectively stopped by Nitroglycerin. A year ago, for the first time there was an attack of loss of consciousness for several minutes, accompanied by involuntary urination. In the last month, similar attacks have become more frequent, there has been an increase in blood pressure. Objectively: the consciousness is clear. Pronounced lip cyanosis, the border of relative cardiac dullness of the heart is shifted to the left by 2 cm. The heart tones are deaf, rhythmic. Sometimes a loud (cannon) is heard I tone. Heart rate - 34 beats per minute. Blood pressure -180/100 mm Hg. There is hard breathing in the lungs, no wheezing. The liver protrudes from under the costal arch by 5 cm, its edge is dense, sensitive to palpation. Symmetrical swelling on the legs up to the upper third of the shins

#### Questions

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

#### Task 7.

Patient B. 38 years old complains of shortness of breath with little physical exertion, fatigue, weakness, episodes of suffocation occurring in a horizontal position, swelling of the shins and feet. At the age of 17, rheumatic heart disease was detected - mitral valve insufficiency. On examination: the condition is serious. Acrocyanosis. Swelling of the shins and feet. BH - 24 per minute. With comparative percussion of the lungs, a dulling of the percussion sound is noted to the right below the angle of the scapula. During auscultation, weakened vesicular respiration, in the lower parts - a small amount of moist, small-bubbly wheezing. The left border of the heart is 3 cm outside of the midclavicular line in the VI intercostal space. The auscultative picture corresponds to the existing defect. The heart rate is incorrect, the heart rate is 103 beats per minute. Blood pressure is 110/65 mm Hg. The abdomen is increased in volume due to non-stressed ascites, soft, painless. The size of the liver according to Kurlov is 13 ×12 × 10 cm. The liver protrudes from under the edge of the costal arch by 3 cm, its edge is rounded, slightly painful. On the ECG, the rhythm is incorrect, there are no P waves.

#### Questions

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

#### Task 8.

Patient M., 58 years old, a salesman, was hospitalized with complaints of intense burning pain throughout the chest for 7.5 hours, with radiation to the left shoulder, neck, lower jaw, elbow, also complained of perspiration, palpitations, weakness, shortness of breath at rest, cough. Anamnesis: does not smoke. My father suffered a myocardial infarction at the age of 49. From the age of 35, the patient notes an increase in blood pressure to 180/100 mm Hg. Deterioration in the form of the appearance of intense pain in the chest at rest appeared at 06-00. The patient independently took 4 tablets of Nitroglycerin without effect and at 12-00 after the appearance of shortness of breath and weakness sought medical help. I called an ambulance (SMP). Objectively: the condition is severe due to chest pain, shortness of breath, hypotension. height - 178 cm, weight - 105 kg. On examination, the skin is marble-colored, cold, distinctly moist. Shortness of breath remains at rest, the respiratory rate is up to 28 per minute, the patient takes a forced half-sitting

position. Auscultative, there are moist, small-bubbly wheezes over all the pulmonary fields. The pulse on the radial arteries is markedly weakened, threadlike, 120 beats per minute. Auscultative, the I tone is weakened in the heart area, tachycardia is up to 120 per minute, systolic noise is heard at the apex. Blood pressure on the right upper limb is 80/50 mm Hg, on the left upper limb - 75/50 mm Hg. There is no edema on the lower limbs. According to the ECG in the emergency room without dynamics, compared with the SMP film

According to EchoCG, the left ventricular ejection fraction is 38%, pronounced mitral papillary dysfunction, regurgitation on mitral valve III, left ventricular myocardial hypertrophy. According to the measurement of invasive hemodynamics, the central venous pressure is 260 mm of water (N 90-110 mm of water). The jamming pressure of the pulmonary capillaries is 23 mmHg (N 10-18 mmHg). The cardiac index is 1.9 l/min/m<sup>2</sup> (N 2.5-4.5 l/min/2). Saturation – 69% (N 80-100). Radiologically, there is venous congestion of the III degree in the lungs, the shadow of the heart is expanded to the left.

#### Questions

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

#### Task 9.

A 78-year-old patient was taken to the hospital with a diagnosis of acute ST-segment elevation myocardial infarction. Complains of intense, pressing pains behind the sternum, as well as pronounced shortness of breath of a mixed nature at rest, a feeling of fear of death. Objectively: the condition is severe, orthopnea, pale skin, profuse sweat, acrocyanosis, BH 28 per minute. During auscultation, weakened vesicular respiration, wet wheezing is detected up to the corners of the shoulder blades.

#### Questions

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

#### Task 10.

A 55-year-old patient sought medical help from a local cardiologist. Complains of an increase in blood pressure up to 180/100 mm Hg, a decrease in the tolerance of extreme physical exertion (works as a loader), palpitations, delayed recovery after exertion. Objectively: the condition is satisfactory, the skin is physiologically colored, the nutrition is increased. There is no swelling. Pulse 78 per minute, solid, full, blood pressure 180/100 mmHg. Relative dullness of the heart: the right one is 1.0 cm outward from the right edge of the sternum, the left one along the SCL, the waist of the heart does not go beyond the left circumflex line. The heart tones are preserved, their physiological ratio is at the top, the emphasis of the second tone is on the aorta. BH 16 per minute. During auscultation, vesicular breathing, no wheezing. The liver is the lower border along the SCL along the edge of the costal arch. Liver borders by Kurlov: 10, 9, 5 cm

#### Questions

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

## **Variant 2**

### **Task 1.**

A patient with acute anterior widespread transmural myocardial infarction developed a severe attack of suffocation at night, cold, sticky sweat appeared, blood pressure dropped, confusion appeared, pink foamy sputum began to stand out. With auscultation of the heart, there is a three - membered rhythm at the apex and an emphasis of the II tone on the pulmonary artery.

#### **Questions**

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

### **Task 2.**

Patient M., 50 years old, complains of poor sleep, superficial, anxious, prolonged period of falling asleep, periodic headaches, more often after emotional overload, but sometimes associated with changes in the weather, physical exertion, localized in the eyeballs, shortness of breath during exercise, heart failure, tinnitus. Objectively: slightly increased nutrition, there are no significant changes. Heart – slightly enlarged to the left, increased apical thrust, heart tones are clear, there is an accent of the II tone in the 2nd intercostal space at the right edge of the sternum. Blood pressure -200 /110 mm Hg. After a week, the pressure decreased. OAM: specific gravity – 1020, protein - no, sugar - no, leukocytes 3-4 in the field of vision, single cells of the squamous epithelium.

#### **Questions**

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

### **Task 3.**

Patient D. 56 years old was admitted to the hospital with complaints of severe headache, dizziness, sensations of pulsation in the head, nausea, blurred vision. These symptoms appeared for the first time in my life six months ago on the background of stress. She was taken to the hospital, where for the first time an increase in blood pressure to 180/120 mm Hg was detected. She was later observed by a district therapist, took hypotensive therapy. Recently, blood pressure with irregular measurements of 150/80 mm Hg. Objectively: the general condition of moderate severity. The body mass index is 29.7 kg/m<sup>2</sup>. The face is hyperemic. Breathing is vesicular, there are no wheezes. BDD - 16 per minute. Pulse - 96 beats per minute, blood pressure - 190/90 mm Hg. on both hands. The left border of relative cardiac dullness is shifted 1 cm outwards from the midclavicular line. The heart tones are clear, rhythmic, there are no noises. The belly is soft, painless. The liver is not enlarged. There are no edema on the lower extremities. In a general blood test without pathological changes.

#### **Questions**

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

### **Task 4.**

Patient Ts, 42 years old, was admitted with complaints of abdominal enlargement, shortness of breath, swelling on the lower extremities and in the lumbar region. At the age of 20, he suffered from Botkin's disease. He was repeatedly treated in the hospital. On examination: the patient is emaciated, the skin is slightly jaundiced, swelling on the lower extremities, in the lumbar region, the abdomen is sharply enlarged in size, an expanded venous network is visible on the lateral surfaces. Palpation determines the presence of free fluid in the abdominal cavity. The liver protrudes from under the edge of the costal arch by 3 cm, dense, its surface is bumpy. Percussion in the vertical position of the patient – a dull sound below the navel.

#### Questions

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

#### Task 5.

Patient P., 45 years old, is concerned about belching air, sometimes with rotten eggs, nausea, a feeling of heaviness in the epigastric region, a tendency to diarrhea, lack of appetite, a feeling of shaking in the fingertips and toes. Objectively: reduced nutrition, pallor of the skin and mucous membranes is noted, and the corners of the mouth are marked with congestion, in the stomach area there is a diffuse blurred soreness. A fractional study of gastric juice revealed the absence of free hydrochloric acid in all portions, the total acidity was sharply reduced. After histamine administration, the acidity did not increase. The secretory function of the stomach is lowered.

#### Questions

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

#### Task 6.

Patient A. is 30 years old, duodenal ulcer. Periodically, there is black feces outside the periods of taking medications. There is a decrease in the number of red blood cells and hemoglobin in the blood.

#### Questions

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

#### Task 7.

Patient N., 27 years old, has been suffering from gastric ulcer for 5 years. Over the past 2 months, the condition has changed, there have been cramping pains in the epigastric region, appearing after eating and at night, especially in the supine position, accompanied by swelling in the epigastric region. At the height of the pain, vomiting appears with food eaten, and often eaten the day before. The pain stops after vomiting. The examination revealed swelling in the epigastric region, the stomach is clearly contoured in the form of antiperistalsis. During palpation, a seal is determined in the stomach area.

#### Questions

1. Name and substantiate the syndromes.



2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

Task 8.

Patient A., 32 years old, went to the doctor with complaints of burning pain in the epigastric region with irradiation under the right shoulder blade, appearing 2 hours after taking the urine, as well as at night, subsiding after taking soda, heartburn, nausea, general weakness, dizziness, palpitations, black (tar-like) stools. Objectively: The condition is of moderate severity, the patient is malnourished, the skin is pale. No pathology was detected on the part of the lungs. Pulse 112 beats per minute, weak filling, blood pressure 100/65 mmHg. Abdomen of the usual configuration, palpation shows soreness in the epigastric region to the right of the median line.

Questions

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

Task 9.

The patient is 38 years old, complains of pain in the right hypochondrium, which occur after eating fatty, fried food, radiate under the right shoulder blade and right shoulder joint, nausea after eating, bitterness in the mouth, frequent constipation. Objectively: palpation reveals soreness in the right hypochondrium, positive symptoms of Ker, Murphy, Ortner. The liver is not palpable. A large number of leukocytes and mucus were detected in portion "B" of the duodenal contents. Radiography of the gallbladder revealed a normal-sized gallbladder, which shrank by half after taking eggs.

Questions

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

Task 10.

Patient B., 40 years old, turner. He went to the doctor with complaints of constant aching pains radiating into the back, shingles, especially at night, lack of appetite, nausea and vomiting after eating, frequent diarrhea. Objectively: soreness during palpation of the epigastric region and in the left hypochondrium, as well as at the Shafar point.

Questions

1. Name and substantiate the syndromes.
2. Formulate and substantiate the diagnosis.
3. Name the necessary additional investigations.
4. List the possible complications of this disease.
5. Determine the tactics in relation to this patient, tell us about the principles of treatment, prognosis and prevention of this disease.

**4.3. Questions for interviews UC-1,4,5 GPC-1,4,5,10 PC-5,6,7:**

<https://sdo.pimunn.net/course/view.php?id=2836>

1. Characteristics of complaints, anamnesis in patients with diseases of the upper respiratory tract.

2. Rules of examination of the ear, nose, nasal passages, internal examination of the throat. External palpation of the laryngeal area.
3. Characteristics of the chief complaints, features of the anamnesis of the present disease and the anamnesis of life.
4. Rules of general examination of patients with respiratory diseases. Assessment of the severity of the condition. Possible changes in the level of consciousness. Forced postures.
5. Extrapulmonary manifestations of respiratory diseases: changes in color, turgor and moisture of the skin, changes in nails, hair, cervical veins, lymph nodes, the presence of peripheral edema.
6. Rules of local inspection of patients with respiratory diseases.
7. Rules of chest palpation. Causes of pathological manifestations.
8. Rules of chest percussion. Causes of resonance changes. Box and tympanic percussion sound, reasons. Changes in the position of the upper and lower borders of the lungs, causes. Low lung borders movement.
9. Auscultation of the lungs. Rules for comparative auscultation of the lungs. The main types of breathing: vesicular and bronchial, their physiological and pathological changes. Pathological lung sounds: wheezing, crepitation, pleural friction rub. Bronchophony.
10. Laboratory and instrumental methods in respiratory diseases. CBC, blood chemistry, sputum analysis, pleural fluid, bronchoscopy, lung function test: spirometry, pneumotachometry, computer spirometry, diffuse lung capacity by carbon monoxide, blood gases.
11. Chest X-ray, X-ray tomography, bronchography, X-ray computed tomography, magnetic resonance imaging, lung scintigraphy, thoracoscopy, mediastinoscopy, angiography of pulmonary and bronchial vessels
12. The main pulmonary syndromes: compaction of lung tissue, respiratory failure, pulmonary emphysema, bronchospastic, cavities in the lung tissue, accumulation of fluid and air in the pleural cavity, lung atelectasis, the presence of adhesions and mooring in the pleural cavity.
13. Respiratory diseases. Lobar and bronchopneumonia. Bronchial asthma, acute and chronic bronchitis, COPD, pulmonary emphysema, bronchiectatic disease, abscess, lung cancer, dry and exudative pleurisy, pneumothorax. Etiology, pathogenesis, clinical manifestations, laboratory and instrumental diagnostics, principles of treatment.
14. Taking history a patient with diseases of the cardiovascular system. Characteristics of the chief complaints. Rules for describing the pain syndrome. Features of the anamnesis of the present disease and the anamnesis of life.
15. General inspection of a patient with pathology of the heart and blood vessels. Assessment of the general condition and consciousness of the patient. The forced posture of the patient with heart diseases. Extracardiac manifestations of heart diseases: discoloration of the skin and mucous membranes, nails, pulsation and swelling of veins, swelling of the face, lower extremities, ascites, etc.
16. Inspection of the precordial area. Definition of the apex beat, its characteristics. Detection of chest swelling, pathological pulsations,
17. Palpation of the pulse. Characteristics of the pulse: rhythm, rate, volume, filling and shape of the pulse. Sphygmography.
18. Palpation of the precordial area. Palpation of the apex beat, characteristics of its localization, width, height, strength. Causes of changes in the characteristics of the apical shock.
19. Percussion of the heart borders and vascular fascicle. Rules for determining relative and absolute boundaries.
20. Auscultation of the heart and blood vessels. Rules of auscultation of the heart and blood vessels. Heart tones, mechanisms of their formation. Heart murmurs, classification. Organic and functional murmurs. Systolic and diastolic murmurs. Differences between organic and functional cardiac murmurs. Phonocardiogram for mitral and aortic valvular heart defects.
21. Measurement of blood pressure. Rules and conditions for measuring blood pressure. Additional methods for assessing AD – SMAD.
22. Electrocardiography as the main diagnostic method in cardiology. ECG registration. ECG elements.

23. Cardiac arrhythmias. Classification, causes of occurrence. ECG-signs of supraventricular and ventricular arrhythmias.
24. ECG in patients with coronary heart disease.
25. Methods of radiologic diagnostics in cardiology. Chest X-ray. Ultrasound of the heart and blood vessels. Angiocardiography. Nuclear magnetic resonance imaging of the heart and large vessels. Radionuclide study of the contractility of the heart. Perfusion scintigraphy.
26. The main clinical syndromes. arterial hypertension, cardiac arrhythmias, myocardial ischemia, insufficiency and stenosis of the mitral, aortic, and tricuspid valves.
27. Diseases of the cardiovascular system. Acute rheumatic fever, acquired heart defects, hypertension, coronary heart disease: angina pectoris, myocardial infarction, cardiac arrhythmias, circulatory insufficiency; myocardial diseases: myocarditis, pericarditis, infectious endocarditis. Etiology, pathogenesis, clinical manifestations, diagnostic methods.
28. Features of taking history in gastroenterological patients. Characteristics of pain syndrome in diseases of the gastrointestinal tract.
29. Types of dyspepsia. Types of dysphagia. Characteristics of belching, heartburn, nausea, vomiting, etc. Manifestations of gastrointestinal bleeding: hematemesis, melena, hematochezia. Types of diarrheas, causes.
30. Examination of patients with pathology of the digestive organs. General and abdominal inspection, superficial and deep, sliding, topographic methodical palpation, percussion, abdominal auscultation.
31. Taking history of the patient, the chief complaints, features of anamnesis in diseases of the stomach and intestines.
32. General and local inspection for diseases of the stomach and intestines.
33. Superficial palpation and percussion of the abdomen according to Mendel, detection of "the noise of the plenum". Deep palpation of the large curvature of the stomach.
34. Laboratory and instrumental methods of diagnosis of stomach diseases. Gastric juice secretion analysis, endoscopy, X-ray diagnostics, diagnosis of HP infection.
35. Diseases of the digestive system. Acute and chronic gastritis, peptic ulcer disease. Etiology, pathogenesis, clinical manifestations, diagnostic methods, principles of treatment.
36. Rules for the diagnosis of diseases of the pancreas and intestines. Questioning. Features of pain syndrome. Symptoms of dyspepsia.
37. Physical methods of examination in diseases of the pancreas and intestines.
38. Laboratory investigations in pancreatic diseases. Investigation of feces, the main coprological syndromes; determination of the activity of blood enzymes.
39. Methods of radiation diagnostics in diseases of the pancreas. Overview radiography of the abdominal cavity, ultrasound, CT scan, NMR tomography.
40. Instrumental methods of intestinal investigations. Endoscopy. Colonoscopy.
41. The main syndromes in diseases of the pancreas and small intestine. Malabsorption, celiac disease. Mechanisms of development, clinical manifestations.
42. Pancreatitis. Pancreatic cancer. Inflammatory nonspecific bowel diseases: Crohn's disease, ulcerative colitis; functional bowel diseases: irritable bowel syndrome. Etiology, pathogenesis, clinical manifestations, diagnostic methods.
43. Rules for the diagnosis making of diseases of the biliary system and liver. Taking history. Features of complaints and anamnesis. Characteristics of pain syndrome, dyspeptic symptoms, neuropsychiatric and vegetative symptoms.
44. Physical methods in the diagnosis of liver and gallbladder diseases.
45. Laboratory and instrumental diagnostics of diseases of the biliary system. Duodenal intubation, rules, indications, stages of bile excretion. Liver function tests.
46. Differential diagnosis of jaundice.
47. Methods of X-ray diagnostics in diseases of the liver and biliary tract.
48. Functional diseases of the biliary tract, cholelithiasis, acute and chronic cholecystitis. Etiology, pathogenesis, clinical manifestations, diagnostic methods.

49. The main liver syndromes. Inflammation in the liver, jaundice, cholestasis, cholemia, cytolysis, portal hypertension, hypersplenism, hepatolienal, hepatocellular insufficiency. Clinical manifestations, diagnostic methods.
50. Hepatitis, cirrhosis of the liver, metabolic diseases of the liver. Etiology, pathogenesis, clinical manifestations, laboratory and instrumental diagnostics, principles of treatment.
51. Diagnosis making of diseases of the urinary system. Taking history. Features of complaints. Features of the anamnesis. Characteristics of the pain syndrome. Mechanisms of renal edema. Features of arterial hypertension syndrome. Gastrointestinal complaints in kidney diseases.
52. Physical methods of examination in the diagnosis of kidney diseases. Palpation, percussion, auscultation of the kidneys. Rules of the event. Diagnostic significance. The symptom of Pasternatsky F.N.
53. Laboratory and instrumental research methods in the diagnosis of kidney diseases. Urine examination: clinical analysis, Nechiporenko test, Addis-Kakovsky test. Functional methods of kidney examination: Zimnitsky test.
54. Methods of radiation diagnostics in nephrology.
55. The main diseases of the kidneys and urinary system. Acute and chronic glomerulonephritis, pyelonephritis, urolithiasis. Etiology, pathogenesis, clinical manifestations, laboratory and instrumental diagnostics.
56. Rules for the diagnosis of diseases of the organs of hematopoiesis. Taking history. Features of complaints: general and specific. Anamnesis features.
57. Physical examination methods in the diagnosis of blood diseases.
58. Laboratory and instrumental methods of investigation. Clinical blood analysis, bone marrow analysis, studies for hemorrhagic syndrome.
59. The main clinical syndromes in diseases of the hematopoietic organs: anemia syndrome, hemorrhagic syndrome, myeloproliferative, lymphoproliferative syndromes. Clinical manifestations, laboratory diagnostics.
60. Anemia: posthemorrhagic, iron deficiency, hemolytic, aplastic.
61. Rules for the diagnosis of diseases of the endocrine glands. Features of complaints, anamnesis.
62. Physical methods in the diagnosis of diseases of the endocrine glands. Inspection. Diagnostic significance of the endocrine patient's facial expression and habitus.
63. Laboratory and instrumental methods of research in endocrinology.
64. Methods of radiation diagnostics in endocrinology.
65. The main clinical syndromes in endocrinology. Hyperglycemia, glucosuria, hypoglycemia, hyperthyroidism syndrome, hypothyroidism. Clinical manifestations, laboratory and instrumental diagnostics.
66. Diffuse toxic goiter, myxedema, diabetes mellitus. Diabetic comas. Etiology, pathogenesis, clinical manifestations, diagnostic methods, principles of treatment.
67. Basic rules for the diagnosis of diseases of joints and muscles. Questioning. Features of complaints and anamnesis.
68. Physical methods in rheumatology. General and local inspection. Examination of joints, muscles, bones. Palpation. Conducting special motor tests.
69. Laboratory and instrumental research methods in rheumatology.
70. Methods of radiation diagnostics in rheumatology.
71. Rheumatoid arthritis, osteoarthritis, gout. Etiology, pathogenesis, clinical manifestations, laboratory and instrumental diagnostic methods, principles of treatment.
72. Urgent conditions in pulmonology. Bronchial asthma attack, status asthmaticus. Pneumothorax. Causes, mechanisms of development, clinical manifestations, diagnostic methods, emergency care.
73. Emergency conditions in cardiology. Pulmonary embolism. Acute cardiac arrhythmias and conduction disorders. Acute vascular insufficiency. Acute coronary insufficiency. Acute left ventricular failure (cardiac asthma). Hypertensive crisis. Causes, mechanisms of development, clinical manifestations, diagnostic methods, emergency care.
74. Urgent conditions in gastroenterology. Acute gastric bleeding. Biliary colic. Acute pancreatitis. Causes, mechanisms of development, clinical manifestations, diagnostic methods, emergency care.

75. Emergency conditions in nephrology. Renal colic. Acute renal failure. Causes, mechanisms of development, clinical manifestations, diagnostic methods, emergency care.

76. General emergency conditions. Anaphylactic shock. Causes, mechanisms of development, clinical manifestations, diagnostic methods, emergency care.

#### 4.4. Tasks for the exam

##### *Examination card N 1*

1. Most important achievements in internal diseases science. Famous and leading internists and their achievements and discoveries.
2. Syndrome of bronchospasm. Definition, etiology, symptoms, signs, laboratory and instrumental investigations. LFT importance.
3. A 32-year-old man complains of inability to carry out his professional duties because of constant dull pain in the right ileac area, frequent large-volume, watery feces with mucous up to 18 times per day, abdominal distention, passage of excessive gases per rectum, reduced appetite, weight loss in 12 kg for the last 3 months, fever  $37,8^{\circ}$  in the evening, night sweating, general weakness. Objectively: he is pale, muscle wasting is evident, BMI 21, furred "geographic" tongue with multiple small ulcers closed to the root of it, abdominal examination reveals increased bowel sounds, pain and tenderness in the right lower quadrant. Bladder signs are negative. The remainder of his abdominal examination is normal. His CBC shows: erythrocytes:  $3,5 \cdot 10^{12}/l$ , Hb- 96 g/l, leukocytes -  $14,2 \cdot 10^9/l$ , ESR- 38 mm/h. Colonoscopy shows a "cobblestone"-like appearance of the terminal ileum mucosa.
  1. Name and substantiate syndromes.
  2. What supportive laboratory and instrumental investigation should be prescribed and what possible abnormalities can you reveal in results?
  3. Explain mechanism of ulcers on the tongue.
  4. Formulate the diagnosis according to the classification.
  5. What are possible complications of this disease?

##### *Examination card N 2*

1. Stages of diagnosis making. Structure, components and importance of Patient's data eliciting stage.
2. Syndrome of the left atrioventricular valve insufficiency. Definition, types, etiology, pathogenesis, symptoms, signs, laboratory and instrumental investigations. ECG criteria.
3. A woman of 66-year-old complains of fever up to  $38^{\circ}$ , weakness, headache, reduced appetite, nausea for the last 8 days, frequent painful urination during the day and at night. She has constant dull intense pain in the right lumbar area with radiation downwards to the right ileac area and thigh. The appearance of her urine is unpleasant, it is cloudy and brownish. She told you she had stones in the gallbladder and in the urinary tract based on results of ultrasound investigation. Objectively: general condition is moderately severe, vital signs are: pulse rate 96/min. RR 20/min, BP 155/105 mm Hg, t  $37,7^{\circ}$ . Palpation of the abdomen is painful in the right lumbar and ileac areas with tenderness in the same region. Pasternatsky sign is extremely positive on the right side.
  1. Name and substantiate syndromes.
  2. What laboratory and instrumental investigation should be prescribed and what possible abnormalities can you reveal in results?
  3. Describe Pasternatsky sign assessment technique.
  4. Explain mechanism of the pain in the lumbar area.
  5. Formulate the diagnosis according to the classification.

##### *Examination card N 3*

1. Inspection of a patient. Assessment of the level of consciousness. Examples of pathological levels of consciousness in internal diseases.
2. Clinical syndromes of intestinal diseases: syndrome of fermentative and putrid intestinal dyspepsia. Definition, types, etiology, classification, symptoms, signs, laboratory and instrumental investigations. Results of coprological studies.

3. A 23-year-old female office worker presents to emergency room with complaints of trouble breathing, chest tightness and cough with viscous sputum. She has a history of allergic rhinitis that was precipitated by exposure to grass pollen and domestic pets. On examination: general condition is moderately severe, respiratory rate is 26 per minute, expiratory phase is prolonged and noisy, she prefers to sit up and lean forward with her palms on knees, pulsus paradoxus is present with rate 98/min, on percussion of her chest wall the hyperresonance is heard bilaterally, on auscultation the vesicular breathing is reduced significantly with prolonged expiratory phase, and musical whistling sounds are audible during expiration bilaterally.
  1. Name and substantiate syndromes.
  2. What laboratory and instrumental investigation should be prescribed and what possible abnormalities can you reveal in results?
  3. Explain the mechanism of pulsus paradoxus.
  4. Formulate the diagnosis according to the classification.
  5. What are possible complications of this disease?

*Examination card N 4*

1. Medical ethics and deontology. Hippocratic oath. М.Я.Мудров and his principle of the medical care. Foundations of this principle.
2. Syndrome of pulmonary consolidation. Definition, etiology, symptoms, signs, laboratory and instrumental investigations.
3. 35-year-old man, heavy smoker had had intensive pain in epigastria at night and 1,5 hours after meals, that radiated upwards retrosternally and associated by heartburn and sour eructation. Nitroglycerine did not help, but eating helped him to relieve the pain usually. Yesterday the pain became worse, he fainted. There was black tar-like stool afterwards. Objectively: general condition is moderately severe, he is oriented, respiratory rate is 24 per minute, pulse rate 96 per minute, BP 100/70 mm Hg. The color of the skin is pale. Physical examination of the respiratory system doesn't reveal pathological changes. On the heart auscultation tachycardia 96 p/m and reduced first heart sound are found. Abdominal palpation shows pain and tenderness in the epigastria and right hypochondria area. Blumberg's sign is negative.
  1. Name and substantiate syndromes.
  2. What laboratory and instrumental investigation should be prescribed and what possible abnormalities can you reveal in results?
  3. Explain the mechanism of night epigastric pain.
  4. Formulate the diagnosis according to the classification.
  5. What are possible complications of this disease?

*Examination card N 5*

1. Disease and its components. Etiology, pathogenesis. Definitions, examples. Clinical features of a disease. Symptom, sign, syndrome. Definition, examples.
2. Syndrome of pleural effusion. Definition, etiology, symptoms and signs. Types of pleural fluid and differences between them. Laboratory and instrumental investigations.
3. A 25 -year-old veterinarian presents to the clinic for evaluation of flank pain on the right, frequent painful difficult urination, urination at night, increased amount of urine, nausea, fever up to 38.3° in the evening and headache in the occipital and temporal areas for the last 3 days. Objectively: general condition is closed to satisfactory, she is pale, but her cheeks are flushed. Vital signs are: pulse rate 100/min, BP 140/95, RR 20/min. Physical examination of the respiratory system doesn't reveal pathological sounds. Percussion of heart borders shows normal their location. Auscultation of the heart reveals tachycardia and increased loudness of heart sounds. Abdominal palpation shows tenderness in the right lumbar area. Pasternatsky's sign is positive on the right side.
  1. Name and substantiate syndromes.
  2. What laboratory and instrumental investigation should be prescribed and what possible abnormalities can you reveal in results?
  3. Explain the mechanism of tenderness in the right lumbar area on palpation.

4. Formulate the diagnosis according to the classification.
5. Name microbiological criteria for this diagnosis.

*Examination card N 6*

1. Diagnosis. Definition, examples. Stages of diagnosis making. Structure and components of each stage of diagnosis making.
2. Syndrome of airflow limitation. Definition, etiology, symptoms, signs, laboratory and instrumental investigations. LFT importance.
3. A man aged 53 visited the outpatient department, complaining of pressing retrosternal chest pain with radiation to the left elbow on physical exertion. He noticed that inspiratory breathlessness appears at the same time. It is known from anamnesis that arterial hypertension was diagnosed in him 5 years ago. The pain in the chest appeared 3 years ago for the first time (during running). It was like compression in the center of the sternum. It usually developed after climbing to the 4-th floor. Rest and nitroglycerine helped in 1 - 2 minutes. Objectively: his general condition is satisfactory, vital signs are: pulse rate 82/min, BP 160/95, RR 20/min, t 36,8°. Skin is of physiological color. Xanthelasmas are seen on inferior eyelids. Physical examination of the respiratory system doesn't reveal pathological sounds. Percussion of heart borders shows 2 cm displacement of the left heart border to the left. Auscultation of the heart reveals accentuated second heart sound of the aortic area. Abdominal palpation painless. Pasternatsky's sign is negative bilaterally.
  1. Name and substantiate syndromes.
  2. What laboratory and instrumental investigation should be prescribed and what possible abnormalities can you reveal in results?
  3. Explain the mechanism of the chest pain.
  4. Formulate the diagnosis according to the classification.
  5. Name ECG criteria of this disease.

*Examination card N 7*

1. Stages of diagnosis making. Structure, components and importance of Patient's data assessment stage.
2. Syndrome of myocardial ischemia. Definition, mechanisms, etiology, symptoms, signs, laboratory and instrumental investigations. ECG characteristics.
3. A man of 22 had acute tonsillitis 4 weeks ago. 2 weeks ago he developed subfebrile temperature, weakness and hydrosis. 4 days before the admission oedema of the face and legs had appeared. There was a headache and dull lumbar pain. The quantity of daily urine decreased. The patient told you that sometimes the color of the urine had been red. Objectively: general condition is moderately severe, inspection of the patient revealed pallid skin, edematous face, swollen eyelids and mild oedema of the legs. Heart rate was 98 per min. Blood pressure was 190/105. Pasternatsky's sign was slightly positive bilaterally.
  1. Name and substantiate syndromes.
  2. What laboratory and instrumental investigation should be prescribed and what possible abnormalities can you reveal in results?
  3. Explain the mechanism of the oedema in this disease.
  4. Formulate the diagnosis according to the classification.
  5. What are possible complications of this disease?

*Examination card N 8*

1. Stages of diagnosis making. Structure, components and importance of Diagnostic conclusion stage.
2. Hyperinflated lungs syndrome. Definition, etiology, symptoms, signs, laboratory and instrumental investigations.
3. 27-year-old woman has pain "in all joints". The disease has been lasted for 7 years. She has 2 hours morning stiffness, that may be relieved by the gentle movements, tingling and numbness in thumbs, subfebrility, headache, general weakness, swinging mood. Objectively: general condition is closed to satisfactory, she is pale. There is visible deformation of hands -

ulnar deviation of fingers bilaterally, atrophy of muscles of hands, proximal interphalangeal and knee joints are red, swollen and painful in palpation. There are small soft painless nodules near proximal interphalangeal joints and olecranon bilaterally.

1. Name and substantiate syndromes.
2. What laboratory and instrumental investigation should be prescribed and what possible abnormalities can you reveal in results?
3. Explain the mechanism of subcutaneous nodes.
4. Formulate the diagnosis according to the classification.
5. Name specific deformities of joints in this disease.

#### *Examination card N 9*

1. Deontology. Principles of medical care and their substantiations.
  2. Syndrome of left heart failure. Definition, classification, etiology, mechanisms of development, symptoms, signs, classification, laboratory and instrumental investigations. High-output heart failure. Importance of echocardiography in diagnosis making.
  3. A woman of 72 had had pain in the right hip and right knee for 10 years. She had 10-15 minutes morning stiffness of these joints every day. When she wants to relieve this stiffness by gentle movements, the pain increases considerably. She complains of night pain in these joints also that interrupts her sleep. She was hardly able to move because of pain. Objectively: there are bony painless nodules near proximal and distal interphalangeal joints of her hands. There is deformity and swelling of the right knee. The palpation of the right knee and right hip is painful.
1. Name and substantiate syndromes.
  2. What laboratory and instrumental investigation should be prescribed and what possible abnormalities can you reveal in results?
  3. What are names of bony painless nodules near interphalangeal joints in this disease?
  4. Formulate the diagnosis according to the classification.
  5. Name risk factors of this disease.

#### *Examination card N 10*

1. Taking history, its clinical importance. Contribution of Г.Захаръин and R. Laennec to the development of patient's questioning approaches. Medical and social goals during taking history.
  2. Syndrome of pleural effusion: transudative pleural effusion. Definition, etiology, symptoms and signs. Laboratory and instrumental investigations. Importance of pleural fluid analysis.
  3. 66-year-old obese woman developed thirst. She drunk a lot of water (more than 4 liters/day) and had frequent painless urination during the day at night also. Her appetite was not bad but she lost her weight in 12 kg for the last three months. Sometimes she had pruritus of skin and external genitalia. Objectively: general condition is moderately severe, she is oriented. Her weight 60 kg, her height 158 cm. Vital signs: RR 22/min, PR 96/min, BP 160/100 mmHg, t 36,5°. Her skin is dry, thin, with scratching marks in some places on extremities and abdomen.
1. Name and substantiate syndromes.
  2. What laboratory and instrumental investigation should be prescribed and what possible abnormalities can you reveal in results?
  3. Count and assess her BMI at the moment and before weight loss.
  4. Formulate the diagnosis according to the classification.
  5. Name risk factors of this disease.

#### *Examination card N 11*

1. Skills and preparations of successful taking history. Interaction between patient and physician. Main ways of encouraging patient to tell his story.
2. Syndrome of pleural effusion: exudative pleural effusion. Definition, etiology, symptoms and signs. Laboratory and instrumental investigations. Importance of pleural fluid analysis.



3. 32-year-old woman developed episode of very rapid regular palpitation with inspiratory dyspnoea 2 months ago for the first time. Since that time she had been suffering from such episodes 2 times a week. She was fond of cold weather. She had an increased appetite and frequent stools also. She lost her weight in 15 kg for the last six months. It is known from anamnesis, she has had enlarged thyroid gland with a nodule for the last three years. Objectively: on inspection she appeared to have big eyes and expression of astonishment. She had fine tremor of the fingers. Her height is 175 cm, her weight 52 kg. Her skin is warm, bright pink and wet. Thyroid gland is palpable, mobile, of soft consistency, painless. On heart auscultation HR 105/min, heart sounds are loud; blowing systolic murmur is heard over heart base. BP 165/100 mmHg. Abdominal palpation painless, without tenderness. Pasternatsky's sign is negative.
  1. Name and substantiate syndromes.
  2. What laboratory and instrumental investigation should be prescribed and what possible abnormalities can you reveal in results?
  3. Count and assess her BMI at the moment and before weight loss.
  4. Formulate the diagnosis according to the classification.
  5. Explain mechanism of heart murmurs over heart base.

*Examination card N 12*

1. Skills of successful taking history. Interaction between patient and physician. Additional ways of encouraging patient to tell his story.
2. Syndrome of arterial hypertension. Definition, etiology, classification, symptoms, signs, laboratory and instrumental investigations.
3. A man of 45 years old was brought to the hospital by the ambulance because of the episode of the fainting. It is known from anamnesis that he has had pain in the area of the stomach in 1 hour after eating for the last 4 weeks, heartburn and sour belching after eating. He had black tar-like stool 3 hours ago. Objectively: general condition is moderately severe, he is oriented, but his speech is slowed down. He is pale. His pulse is weak, PR110/min; BP 105/60 mm Hg. respiratory rate is 26/min. The tongue is dry and coated by grey masses. Vesicular breathing is heard in the lungs. Tachycardia 110 p/m and reduced heart sounds are found on heart auscultation. Abdominal palpation reveals intensive pain and tenderness in the epigastric area. Blumberg's sign is negative.
  1. Name and substantiate syndromes.
  2. What laboratory and instrumental investigation should be prescribed and what possible abnormalities can you reveal in results?
  3. Explain the mechanism of the fainting.
  4. Formulate the diagnosis according to the classification.
  5. What is the name and mechanism of the black tar-like stool?

*Examination card N 13*

1. Structure of taking history. Importance of each component. Significance of Official anamnesis for diagnosis making.
2. Syndrome of cardiac rhythm disorders. Definition, classification, etiology, symptoms, signs, instrumental investigations. Importance of electrocardiography and ECG-monitoring in diagnosis making of cardiac arrhythmias.
3. A 62-year-old construction worker presents to your office with complaints of troublesome breathing, productive cough with greenish sputum and inability to take on his shoes because of puffiness of his legs. Initial history reveals that he smokes two packs of cigarettes per day for the last 40 years, his mother died from IHD, his father died from bronchial cancer. On examination: he is centrally cyanosed, respiratory rate 30 per minute, he has clubbing fingers, his neck shows dilated jugular veins, his chest wall shows poor respiratory effort, on percussion of the lungs hyperresonance is heard bilaterally, auscultation of the lungs reveals reduced vesicular breathing with scattered expiratory wheezes; percussion of the heart shows right border that is in 3 cm laterally from right sternal border, auscultation of the heart shows tachycardia 96/min, accentuated S2 at the pulmonary area, rhythm gallop because of S3. Pitting edema is present on the legs.

1. Name and substantiate syndromes.
2. What laboratory and instrumental investigation should be prescribed and what possible abnormalities can you reveal in results?
3. Explain mechanism of pitting edema of the legs in this disease.
4. Formulate the diagnosis according to the classification.
5. What are causes of this disease?

*Examination card N 14*

1. Structure of taking history. Chief complaints and main disease. Definitions, their diagnostic value, examples. Symptom analysis.
2. Syndrome of air accumulation in pleural space. Definition, types, etiology, symptoms, signs, laboratory and instrumental investigations.
3. A 55-year-old man presents to the emergency room with complaints of severe retrosternal knife-like pain that radiates to the interscapular area and lasts for 2 hours. Pain appeared at rest, while the patient was watching TV. He tried to relieve the pain by nitroglycerine in tablets, but it wasn't effective. That pain in the chest appeared for the first time. His past medical history is significant for arterial hypertension that was diagnosed 10 years ago. His BP increases up to 190/115 mmHg sometimes. He doesn't take hypotensive tablets regularly. He has smoked 15 cigarette per day for the last 30 years. On examination: general condition of the patient is moderately severe, he is sitting on the edge of the bed with half-open mouth, and he is hungry for air. Vital signs: pulse rate 110 per minute, respiratory rate 26 per minute, BP 100/60 mmHg. Upon auscultation of the lungs, fine crackles are heard over lung bases. On auscultation of the heart, tachycardia, muted heart sounds and triple rhythm gallop at the apex are heard.
  1. Name and substantiate syndromes.
  2. What laboratory and instrumental investigation should be prescribed and what possible abnormalities can you reveal in results?
  3. Explain the mechanism of the chest pain.
  4. Formulate the diagnosis according to the classification.
  5. Name risk factors of this disease in the patient.

*Examination card N 15*

1. Structure of taking history. History of Present illness. Its steps and diagnostic importance.
2. Syndrome of pulmonary consolidation. Typical and atypical community-acquired pneumonia. Definition, classification. Clinical features, physical findings, laboratory and instrumental investigations. Pulmonary and extrapulmonary complications of pneumonia. Diagnosis making.
3. 16-year-old boy was brought to the hospital by an ambulance due to unconscious condition. His mother said he has had frequent common colds since childhood. According her opinion he started to eat more with increased appetite and to take more liquid also during last six months. She noticed also that he has had more frequent urination during the day and he has gone to the toilet at night too; and the floor near the toilet pan was sticky. One week ago, in time of the last episode of cold he started to complaint of extreme weakness, headache, increased thirst, abdominal pain, reduced appetite, nausea. But today he became unconscious suddenly, that is why she called ambulance. Objectively: general condition is grave, he is unconscious, his pupils are narrowed and don't react to light. His skin is dry, and there is acetone smell from the mouth. He has Kussmaul's respiration. RR 30/min. PR100/min.
  1. Name and substantiate syndromes.
  2. What laboratory and instrumental investigation should be prescribed and what possible abnormalities can you reveal in results?
  3. Explain mechanism of increased frequent urination in this disease.
  4. Formulate the diagnosis according to the classification.
  5. Define Kussmaul's respiration.

### *Examination card N 16*

1. Structure of taking history. Personal history, its components. Diagnostic importance of Family history.
2. Syndrome of myocardial ischemia. Ischemic heart disease. Definition, classification, clinical presentations, physical findings, laboratory and instrumental investigations. ECG data. Diagnosis making.
3. A man of 48-year-old was brought to the hospital by an ambulance due to anorexia, bloody vomiting, hallucinations. Objectively: general condition is grave, he has disorientation; unusual smell from the mouth is felt. His skin and sclera are icteric; spider nevi on the chest and upper arms are evident. His mammary glands are unusually enlarged. His abdomen is enlarged also with dilated superficial veins on the anterior wall and bulging navel. Percussion of the liver and spleen shows such Kurlov's sizes: 16-12-10 cm and 14-8 cm respectively. Abdominal palpation is difficult because of tightness of the abdomen. But shifting dullness test is positive.
  1. Name and substantiate syndromes.
  2. What laboratory and instrumental investigation should be prescribed and what possible abnormalities can you reveal in results?
  3. Describe the shifting dullness test technique and the result in this patient.
  4. Formulate the diagnosis according to the classification.
  5. What are causes of this disease?

### *Examination card N 17*

1. Structure of taking history. Personal history, its components. Diagnostic importance of Social history.
2. Syndrome of myocardial ischemia. Exertional angina. Definition, classification and clinical features, signs, laboratory and instrumental investigations. Diagnosis making.
3. A 33-year-old flight attendant presents to your office for evaluation of abdominal pain. It localizes in right hypochondria and becomes worse in 40 minutes after eating, especially if she has a meal that is spicy or high in fat. It irradiates to the right shoulder and associated by vomiting and bitter taste in the mouth. On physical examination the patient is slightly yellowish, pulse rate 90 bpm, respiratory rate 22 per min, temperature 37,8° C. Tongue is dry and coated by yellowish masses. Abdominal palpation reveals painful rounded formation in the right hypochondria. Murphy's, Ortner's and phrenicus signs are extremely positive.
  1. Name and substantiate syndromes.
  2. What laboratory and instrumental investigation should be prescribed and what possible abnormalities can you reveal in results?
  3. Explain mechanism of jaundice in this patient.
  4. Formulate the diagnosis according to the classification.
  5. Describe Murphy's, Ortner's and phrenicus signs technique.

### *Examination card N 18*

1. Structure of taking history. Personal history, its components. Importance of Past medical history and Current health status.
2. Valvular heart disease. Mitral stenosis. Definition, etiology, pathogenesis, clinical presentation, physical findings, investigations. ECG and Echocardiography data.
3. A 39-year seamstress presents to the emergency room complaining of severe upper abdominal pain that started about 2 hours ago. She had eaten a cheeseburger and fries 45 minutes before the pain began. She tried taking some calcium stomach tablets but they didn't help. It is known from anamnesis that her older sister and mother have had to have gallbladder surgery. On examination, you find a mildly obese woman in severe distress. She is lying on the stretcher, but she cannot find a comfortable position. Her blood pressure is 140/85, pulse rate 110, temperature is 37,5C. Her abdominal exam reveals normal bowel sounds, but she is tender in the right upper quadrant. She has a positive Murphy's sign. The remainder of her abdominal exam is normal.
  1. Name and substantiate syndromes.

2. What laboratory and instrumental investigation should be prescribed and what possible abnormalities can you reveal in results?
3. Explain mechanism of upper abdominal pain in this patient.
4. Formulate the diagnosis according to the classification.
5. What are causes of this disease?

*Examination card N 19*

1. Structure of taking history. Allergological, transfusiological and epidemiological anamnesis, their diagnostic importance.
2. Valvular heart disease. Mitral incompetence. Definition, classification, etiology, pathogenesis, clinical presentation, physical findings, investigations. ECG and Echocardiography data.
3. A 38-year-old unemployed man presents to the emergency room complaining of black tarry-like stools that now have blood in them. He states he has also had some severe pain in his stomach and nausea for last few days. He vomited once and thinks he saw some blood. His medical history is significant for pancreatitis and asthma. He has smoked two packs of cigarettes for 25 years and drinks approximately 12 beers a day. On review of symptoms, he notes that he has fainted in the last day. On exam, he has no dilated veins around his umbilicus or skin of an unusual color. Increased bowel sounds are heard during auscultation. Palpation reveals diffuse tenderness, which is more severe in the epigastric area.
  1. Name and substantiate syndromes.
  2. What laboratory and instrumental investigation should be prescribed and what possible abnormalities can you reveal in results?
  3. Explain the mechanism of black tarry-like stool.
  4. Formulate the diagnosis according to the classification.
  5. What are causes of this disease?

*Examination card N 20*

1. Structure of taking history. Review of systems. Its diagnostic importance. Examples of additional complaints and diseases.
2. Valvular heart disease. Aortic stenosis. Definition, etiology, pathogenesis, clinical presentation, physical findings, investigations. ECG and Echocardiography data.
3. A 37-year-old bank teller presents to your office complaining of severe epigastric pain, heartburn and nausea that last for several days. Pain starts to increase in 30-40 minutes after eating and disappears after vomiting. She had black tar-like stool once. She denies any earlier history of similar pain. She smokes 10 cigarettes per day, she doesn't drink. On examination, general condition is moderately severe, she is pale, BMI is 19, PR 98/min, RR 22/min. Her tongue is dry and coated. Abdominal palpation reveals epigastric pain and tenderness.
  1. Name and substantiate syndromes.
  2. What laboratory and instrumental investigation should be prescribed and what possible abnormalities can you reveal in results?
  3. Explain the mechanism of black tarry-like stool.
  4. Formulate the diagnosis according to the classification.
  5. What are causes of this disease?

**5. The content of the assessment tools of mid-term assessment**

Mid-term assessment is carried out in the form of an exam.

<https://sdo.pimunn.net/course/view.php?id=2836>

5.1 The list of control tasks and other materials necessary for the assessment of knowledge, skills and work experience.

5.1.1. Questions for the discipline exam

Question	Competence code
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1. The most significant achievements in the history of internal diseases. Outstanding internists.	UC-1,5
2. Medical ethics and deontology. The Hippocratic Oath. M.Y.Mudrov and his principle of medical care. Substantiation of this principles.	UC-1,5 GPC-1,10
3. Disease, etiology, pathogenesis, clinical manifestations. Definitions, examples.	UC-1,4 GPC-1,4.5.10
4. Diagnosis. Definition, examples. Stages of diagnosis making.	UC-1 GPC-10
5. Medical deontology. Principles of medical care.	UC-1,4,5 GPC-1,10
6. Taking history, clinical importance. Medical and social goals during the taking history.	UC-1,4,5 GPC- 1,10 PC-5
7. Official anamnesis. Chief and additional complaints. Definition; their diagnostic importance.	UC-1,4,5 GPC- 1,10 PC-5
8. Personal history, its diagnostic importance.	UC-4,5 GPC- 1,10 PC-5
9. History of present illness, its diagnostic importance.	UC-4,5 GPC- 1,10 PC-5
10. Allergological, transfusiological and epidemiological anamnesis. Their diagnostic importance.	UC-4,5 GPC- 1,10 PC-5
11. Additional complaints. Their diagnostic significance.	UC-4,5 GPC- 1,10 PC-5
12. Physical examination of the patient. Its diagnostic importance. General approaches and rules.	UC-1,4,5 GPC- 4,5 PC-5
13. Inspection of the patient. General approaches and rules of conduct. Assessment of the general appearance of the patient.	UC-1,4,5 GPC- 1,10 PC-5
14. General condition of the patient, evaluation rules. Types of general condition disorders.	UC-1,4,5 GPC- 4,5 PC-5
15. Assessment of the level of consciousness and psycho-emotional state. Examples of disorders.	UC-1,4,5 GPC- 4,5 PC-5
16. Assessment of the patient's physical activity. Active, passive and forced posture. Examples.	UC-1,4,5 GPC- 4,5 PC-5
17. Assessment of the patient's habitus. Constitution, nutrition, general structure. Examples.	UC-1,4,5 GPC- 4,5 PC-5
18. Inspection of the face, eyes, hair. Facial expression. Diagnostic persons with diseases of internal organs.	UC-1,4,5 GPC- 4,5 PC-5
19. Inspection of skin, nails, hair. Pathological changes in the pathology of internal organs.	UC-1,4,5 GPC- 4,5 PC-5
20. Inspection of joints, muscles, bones. Rules of the event. Changes in internal pathology.	UC-1,4,5 GPC- 4,5 PC-5
21.Palpation as a method of physical examination. Palpation of lymph nodes. Rules of the event. Characteristics of lymph nodes. Lymphadenopathy, its causes	UC-1,4,5 GPC- 4,5 PC-5
22. Vital signs. Rules and significance of evaluation in the diagnosis of pathology of internal organs.	UC-1,4,5 GPC- 4,5 PC-5
23. The importance of taking history in diagnosis making of the respiratory system diseases. Complaints of a patient with diseases of the upper respiratory tract.	UC-1,4,5 GPC- 1,10

	PC-5
24. The importance of taking history in diagnosis making of the respiratory system diseases. Complaints of a patient with bronchial and lung diseases. Dyspnea. Classification, mechanisms, development.	UC-1,4,5 GPC- 1,10 PC-5
25. The importance of taking history in diagnosis making of the respiratory system diseases. Complaints of a patient with bronchial and lung diseases. Chest pain, cough. Mechanisms of their development, characteristics.	UC-1,4,5 GPC- 1,10 PC-5
26. The importance of inspection in diagnosis making of the respiratory system diseases. Disorders of the general condition, level of consciousness and psychoemotional state. Forced poses.	UC-1,4,5 GPC- 1,4,5,10 PC-5
27. Changes of the skin and mucous membranes in diseases of the respiratory system.	UC-1,4,5 GPC- 1,4,5,10 PC-5
28. The importance of palpation in the examination of a patient with diseases of the respiratory system.	UC-1,4,5 GPC- 1,4,5,10 PC-5
29. The importance of percussion in the examination of a patient with diseases of the respiratory system. Comparative and topographic percussion.	UC-1,4,5 GPC- 1,4,5,10 PC-5
30. The importance of auscultation in the examination of a patient with diseases of the respiratory system. The main pulmonary breathing, the mechanisms of their development.	UC-1,4,5 GPC- 1,4,5,10 PC-5
31. The importance of auscultation in the examination of a patient with diseases of the respiratory system. Pathological pulmonary sounds, their characteristics and mechanisms of their development.	UC-1,4,5 GPC- 1,4,5,10 PC-5
32. The importance of taking history in the diagnosis making of cardiovascular diseases. Chest pain, shortness of breath, characteristics, mechanisms of development.	UC-1,4,5 GPC- 1,4,5,10 PC-5
33. The importance of taking history in the diagnosis making of cardiovascular diseases. Palpitations, syncope, cough. Their characteristics, mechanisms of development.	UC-1,4,5 GPC- 1,10 PC-5
34. The importance of inspection in the diagnosis making of cardiovascular diseases. Types of cyanosis, mechanisms of development. Edema, its causes and mechanisms of development.	UC-1,4,5 GPC- 1,10 PC-5
35. The importance of palpation in the diagnosis making of cardiovascular diseases. Palpation of the apical impulse, pulse, their characteristics.	UC-1,4,5 GPC- 1,4,5,10 PC-5
36. The importance of percussion in the diagnosis making of cardiovascular diseases. Absolute and relative dullness of the heart. The width of the vascular bundle.	UC-1,4,5 GPC- 1,4,5,10 PC-5
37. The importance of auscultation in the diagnosis making of cardiovascular diseases. Rules of auscultation. Heart tones, the mechanisms of their occurrence.	UC-1,4,5 GPC- 1,4,5,10 PC-5
38. The importance of auscultation in the diagnosis making of heart and vascular diseases. Rules of auscultation. Heart murmurs. Classification, characteristics.	UC-1,4,5 GPC- 1,4,5,10 PC-5
39. The importance of Taking history in the diagnosis making of the gastrointestinal tract diseases. Complaints in esophageal diseases, stomach, intestines. Features of anamnesis.	UC-1,4,5 GPC- 1,4,5,10 PC-5
40. The importance of taking history in the diagnosis making of the hepatobiliary tract diseases. Features of complaints and anamnesis.	UC-1,4,5 GPC- 1,10 PC-5
41. The importance of inspection in the diagnosis making of the digestive system diseases. Objective signs of diseases. Examples of pathological abdominal configuration.	UC-1,4,5 GPC- 1,10 PC-5
42. The importance of auscultation, percussion and palpation of the abdomen in the diagnosis making of the digestive system diseases.	UC-1,4,5 GPC- 1,4,5,10 PC-5

43. The importance of taking history in the diagnosis making of the urinary system diseases.	UC-1,4,5 GPC- 1,4,5,10 PC-5,6,7
44. The importance of examination, palpation and percussion in the diagnosis making of diseases of the urinary tract.	UC-1,4,5 GPC- 1,4,5,10 PC-5
45. The importance of taking history and inspection in the diagnosis making of the blood system diseases. Symptoms and objective signs of blood diseases.	UC-1,4,5 GPC- 1,4,5,10 PC-5
46. The importance of taking history in the diagnosis making of the endocrine system diseases. Symptoms and objective signs of diseases of the endocrine organs.	UC-1,4,5 GPC- 1,10 PC-5
47. The importance of inspection and palpation in the diagnosis making of the endocrine system diseases.	UC-1,4,5 GPC- 1,10 PC-5
48. The importance of taking history, inspection and palpation in the diagnosis making of the musculoskeletal system diseases.	UC-1,4,5 GPC- 1,4,5,10 PC-5
49. Pulmonary tissue consolidation syndrome. Etiology. Clinical manifestations. Laboratory and instrumental methods of investigations.	UC-1,4,5 GPC- 1,10 PC-5
50. The syndrome of lung hyperinflation. Etiology. Clinical manifestations. Laboratory and instrumental methods of investigations.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
51. Airway limitation syndrome. Etiology. Clinical manifestations. Laboratory and instrumental methods of investigations.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
52. Bronchospasm syndrome. Etiology. Clinical manifestations. Laboratory and instrumental investigations.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
53. Respiratory failure syndrome. Etiology. Clinical manifestations. Laboratory and instrumental investigations.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
54. Pleural effusion syndrome. Etiology. Clinical manifestations. Laboratory and instrumental investigations.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
55. Acute bronchitis. Definition, etiology, pathogenesis, classification, clinical manifestations. Laboratory and instrumental investigations	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
56. Pneumonia. Definition, classification. Clinical manifestations and objective signs in typical community-acquired pneumonia. Laboratory and instrumental investigations.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
57. Chronic bronchitis. Definition, classification, pathogenesis, clinical manifestations, additional studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
58. COPD. Definition, etiology, pathogenesis, clinical manifestations, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
59. Bronchial asthma. Definition, classification, clinical manifestations, additional studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
60. Typical and atypical community-acquired pneumonia. Etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
61. Nosocomial pneumonia. Aspiration pneumonia. Mechanisms of development. Etiology, clinical manifestations, objective signs, additional studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
62. Pulmonary and extrapulmonary complications of pneumonia. Pneumothorax. Symptoms, objective signs, additional studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
63. Dry pleurisy. Etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
64. Exudative pleurisy. Etiology, clinical manifestations, objective signs, laboratory	UC-1,4

and instrumental studies.	GPC- 1,4,5,10 PC-5,6,7
65. Emphysema of the lungs. Etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
66. Respiratory failure and pulmonary heart as complications of COPD. Etiology, clinical manifestations, objective signs, laboratory and instrumental studies..	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
67. Asthmatic status. Definition, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
68. Myocardial ischemia syndrome. Etiology. Clinical manifestations. Laboratory and instrumental investigations.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
69. Acute coronary syndrome. Etiology. Clinical manifestations. Laboratory and instrumental investigations.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
70. Heart rhythm disorder syndrome. Etiology. Clinical manifestations. Laboratory and instrumental investigations.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
71. Arterial hypertension syndrome. Etiology. Clinical manifestations. Laboratory and instrumental investigations.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
72. Right heart failure syndrome. Etiology. Clinical manifestations. Laboratory and instrumental investigations.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
73. Left heart failure syndrome. Etiology. Clinical manifestations. Laboratory and instrumental investigations.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
74. IBS. Definition, classification, clinical manifestations, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
75. Myocardial infarction. Definition, causes, classification, clinical manifestations. Laboratory and instrumental investigations.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
76. Essential arterial hypertension. Definition, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
77. Symptomatic arterial hypertension. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
78. Hypertensive crisis. Definition, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
79. Mitral stenosis. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
80. Angina pectoris. Definition, classification, clinical manifestations, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
81. Mitral insufficiency. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
82. Aortic stenosis. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
83. Aortic insufficiency. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6.
84. Left heart failure. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies	UC-1,4 GPC- 1,4,5,10 PC-5,6.
85. Right heart failure. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies	UC-1,4 GPC- 1,4,5,10



	PC-5,6,7
86. Atrial tachyarrhythmias. Definition, etiology, clinical manifestations, objective signs, ECG changes.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
87. Ventricular tachyarrhythmias. Definition, etiology, clinical manifestations, objective signs, ECG changes.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
88. Chronic heart failure. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
89. Dyspeptic syndrome. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
90. Maldigestion syndrome. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
91. Malabsorption syndrome. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
92. Dysphagia syndrome. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
93. Jaundice syndrome. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
94. Acute gastritis. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
95. Chronic gastritis. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
96. Peptic ulcer disease. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
97. Acute cholecystitis. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
98. 5Chronic cholecystitis. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
99. Cirrhosis of the liver. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
100. Chronic hepatitis. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
101. Biliary colic. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
102. The uric syndrome. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
103. Nephrotic syndrome. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
104. Nephritic syndrome. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
105. Edematous syndrome. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
106. Kidney failure syndrome. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7

107. Pyelonephritis. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
108. Glomerulonephritis. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
109. Renal colic. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
110. Urolithiasis. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
111. Chronic kidney disease. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
112. Hyperthyroidism syndrome. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
113. Hypothyroidism syndrome. Myxedema. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
114. Hyperglycemia syndrome. Diabetes mellitus. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
115. Iron deficiency anemia. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
116. B12-deficiency anemia. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
117. Thyrotoxicosis. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
118. Rheumatoid arthritis. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
119. Osteoarthritis. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7
120. Gout. Definition, etiology, clinical manifestations, objective signs, laboratory and instrumental studies.	UC-1,4 GPC- 1,4,5,10 PC-5,6,7

## 6. Criteria for evaluating learning outcomes

*For the exam*

Learning outcomes	Assessment of competence developed			
	unsatisfactory	satisfactory	good	excellent
<b>Completeness of knowledge</b>	The level of knowledge is below the minimum requirements. There were bad mistakes	The minimum acceptable level of knowledge. A lot of light mistakes were made	The level of knowledge in the volume corresponding to the training program. A few light mistakes were made	The level of knowledge in the volume corresponding to the training program, without errors
<b>Availability of skills</b>	Basic skills are not demonstrated when solving standard tasks. There were bad mistakes	Basic skills are demonstrated. Typical problems with light mistakes have been solved. All tasks have been completed, but not in full.	All basic skills are demonstrated. All the main tasks have been solved with light mistakes. All tasks have been completed, in full, but some of them with shortcomings	All the basic skills were demonstrated, all the main tasks were solved with some minor shortcomings, all the tasks were completed in full

Learning outcomes	Assessment of competence developed			
	unsatisfactory	satisfactory	good	excellent
<b>Availability of skills (Possession of experience)</b>	Basic skills are not demonstrated when solving standard tasks. There were bad mistakes	There is a minimal set of skills for solving standard tasks with some shortcomings	Basic skills in solving standard tasks with some shortcomings are demonstrated	Skills in solving non-standard tasks without mistakes and shortcomings are demonstrated
<b>Characteristics of competence formation*</b>	The competence is not fully formed. The available knowledge and skills are not enough to solve professional tasks. Repeated training is required	The formation of competence meets the minimum requirements. The available knowledge and abilities are generally sufficient to solve professional tasks, but additional practice is required for most practical tasks	The formation of competence generally meets the requirements, but there are shortcomings. The available knowledge, skills and motivation are generally sufficient to solve professional tasks, but additional practice is required for some professional tasks	The formation of competence fully meets the requirements. The available knowledge, skills and motivation are fully sufficient to solve complex professional tasks
<b>The level of competence formation*</b>	Low	Below average	Intermediate	High

*For testing:*

Mark "5" (Excellent) - points (100-90%)

Mark "4" (Good) - points (89-80%)

Mark "3" (Satisfactory) - points (79-70%)

*Less than 70% – Unsatisfactory – Mark "2"*

Developer:

Morozova E.P., PhD in Medicine