MINISTRY OF HEALTH OF THE REPUBLIC OF BELARUS
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«BELARUSIAN STATE MEDICAL UNIVERSITY»

APPROVED
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PASSPORT OF THE EXAMINATION STATION OF OBJECTIVE STRUCTURED CLINICAL EXAMINATION (OSCE)

CLINICAL INTERPRETATION OF LABORATORY TEST RESULTS FOR DISEASES OF INTERNAL ORGANS

(Document was translated).

Specialty: 1-79 01 01 General Medicine

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2. Level of measured preparation

5th year students who completed medical clinical practical training, and graduates of educational organizations who received higher education in an educational program in accordance with the state educational standard in the specialty 1-79 01 01 "General Medicine".

3. Verifiable competence

To provide medical assistance in the most common diseases of internal organs, to apply modern methods of diagnosis at various stages of medical care. To make a clinical interpretation of the results of laboratory studies in diseases of internal organs, to be able to establish a preliminary clinical diagnosis, assign the necessary scope of examinations and determine treatment tactics in accordance with current clinical recommendations (treatment protocols).

4. Duration of work at the station is only 17' (for direct work - 15')

1' – familiarization with the task (briefing)	1'
14' – warning about the remaining time to complete the task	15'
1' – invitation to move to the next station	16'
1' – change of examinees	17'

5. Station task

Demonstration by the examinee of the ability to evaluate and interpret laboratory data, make a preliminary clinical diagnosis, prescribe the required volume of examinations and determine treatment tactics in accordance with current clinical recommendations (treatment protocols).

6. Information on ensuring the operation of the station

To organize the operation of the station, the following must be provided:

6.1. Workplace of a member of the examination committee:

1. Working table.
2. Chair.
3. Computer with Internet access for filling out an assessment sheet (checklist) (if possible).

If paper assessment checklists are used to assess a practical skill, it is necessary to print them out in a quantity corresponding to the number of examinees.

6.2. Workplace of examinees

The station should include the equipment necessary for six examinees to take the exam simultaneously:

1. Working table – 6 pcs.
2. Chair – 6 pcs.
3. Wall clock with second hand.
4. Sheets with the text of examination tasks.
5. Answer forms to be filled out by examinees.

Examinees should come in special clothing (medical clothing, replacement shoes) and have a ballpoint pen with them.

7. List of station situations (scenarios)

1. Patient with joint pain, rash, low-grade fever
2. Patient with pain in the joints of the hands and feet
3. Patient with headaches in the temporal regions
4. Patient with pain in the knee joints
5. Patient with spinal pain
6. Patient with attacks of joint pain
7. Patient with numb fingers
8. Patient with jaundice
9. Blood in stool
10. Complications of tonsillitis
11. Epigastric pain
12. Change in urine color
13. Patient with pain in the lumbar region
14. Patient with weakness
15. Patient with fever, shortness of breath, heart pain

16. Patient with heart pain, hypertension
17. Patient with fever, shortness of breath, cough
18. Patient with headache, tinnitus, dizziness
19. Patient with shortness of breath, cough, fever
20. Patient with chest pain, palpitations
21. Patient with choking, coughing

8. Information (briefing) for the examinee

Case No. 1

"Patient with joint pain, rash, low-grade fever"

Instructions: READ THE SITUATION AND GIVE DETAILED ANSWERS TO THE QUESTIONS

Patient N., 22 years old, was sent to the hospital with complaints of pain, swelling in the joints of the hands, ankle joints, the presence of morning stiffness in the joints for up to 1 hour, an increase in body temperature to low-grade levels in the evenings, the appearance of a rash on the face in the cheekbones, general weakness, increased hair loss. She considers herself sick for 2 years when she began to notice the appearance of hyperemia of the skin of the face and neck in response to sun exposure.

On examination: the general condition is of moderate severity. Erythematous rash in the form of a "butterfly" on the skin of the face and décolleté. Mucous membranes are clean. Breathing is vesicular, no wheezing. BR - 17 per minute. Heart sounds are clear, the rhythm is correct. Heart rate – 88 beats per minute, blood pressure – 140/80 mm Hg. Art. The abdomen is soft and painless. Urination, stool without any peculiarities. Swelling in the area of the II, III metacarpophalangeal and II proximal interphalangeal joints, in the area of the ankle joints; limitation of movements due to pain, no deformities.

Examination.

Complete blood count: red blood cells – 3.6×10^{12}/l, hemoglobin – 86 g/l, platelets – 100×10^{9}/l, leukocytes – 3.6×10^{9}/l, eosinophils – 1%, band neutrophils – 8%, segmented neutrophils – 59%, lymphocytes – 25%, monocytes – 4%, ESR according to Westergren – 32 mm/h.

General urine analysis - cloudy, color - yellow, density - 1.022, reaction - acidic, protein - 0.560 g/l, glucose - negative, no leukocytes were detected.

Biochemical blood test: creatinine – 118 μmol/l, urea – 8.8 mmol/l, total protein – 67 g/l, albumin – 45%, α1 – 4%, α2 – 15%, β – 9%, γ – 27%.

Antibodies to double-stranded DNA 328.3 U/ml (reference values: <25 U/ml) and antinuclear antibodies - more than 200 U/ml (reference values: <20 U/ml).

Questions:

1. State the expected diagnosis.

2. Justify your diagnosis.
3. Name the criteria for diagnosing this disease.
4. Make a plan for examining the patient.
5. Which laboratory changes can be observed with this disease?
6. Are there any abnormalities in the patient's general blood test? Explain.
7. Are there any abnormalities in the patient's biochemical blood test? Explain.
8. Are markers of autoimmune diseases changed? Explain.
9. Are there any abnormalities in the patient's general urine analysis? Explain.
10. Suggest a treatment plan for the patient.

Case No. 2

"Patient with pain in the joints of the hands and feet"

Instructions: READ THE SITUATION AND GIVE DETAILED ANSWERS TO THE QUESTIONS

Patient K., 45 years old, came to the clinic with complaints of pain in the metacarpophalangeal, proximal interphalangeal joints of the hands, ankle joints, and metatarsophalangeal joints of the feet; morning stiffness until lunchtime. Considers himself sick for about 3 months, when pain in the joints appeared. She did not seek medical help, was treated with non-steroidal anti-inflammatory gels, without improvement.

General condition is satisfactory. The skin is clean, there is no swelling. Breathing is vesicular, no wheezing. BH – 18 per minute. Heart sounds are clear, the rhythm is correct. Heart rate – 78 beats per minute. Blood pressure – 120/70 mm Hg. Art. The abdomen is soft and painless. Local status: brushes are correct. II, III proximal interphalangeal joints and II, III metacarpophalangeal joints are painful and swollen.

Examination.

Complete blood count: red blood cells – 3.5×10^{12}/l, hemoglobin – 131 g/l, leukocytes – 8.6×10^{9}/l, eosinophils – 1%, band neutrophils – 8%, segmented neutrophils – 55 %, lymphocytes - 30%, monocytes - 6%, ESR according to Panchenkov - 54 mm/h.

Biochemical blood tests: glucose – 3.2 mmol/l, total bilirubin – 15 μmol/l, creatinine – 54 μmol/l; total protein - 76 g/l, albumin - 50%, globulins: α1 - 6%, α2 - 14%, β - 12%, γ - 17%, CRP - 17.2 mg/l, uric acid - 0.24 mmol/l (normal 0.16-0.4 mmol/l).

Rheumatoid factor: ELISA – 62 IU/ml (normally up to 15 IU/ml). Antibodies to double-stranded DNA 15 U/ml (reference values: <25 U/ml), ACCP >200 U/ml (reference values: 0-17 U/ml).

General urine analysis: transparent, color – straw-yellow, density – 1.016, reaction – acidic, protein not detected, glucose not detected, leukocytes not detected.

Questions:

1. State the expected diagnosis.
2. Justify your diagnosis.
3. Name the criteria for diagnosing this disease.
4. Make a plan for examining the patient.
5. Which laboratory changes can be observed with this disease?
6. Are there any abnormalities in the patient's general blood test? Explain.
7. Are there any abnormalities in the patient's biochemical blood test? Explain.
8. Are markers of autoimmune diseases changed? Explain.
9. Are there any abnormalities in the patient's general urine analysis? Explain.
10. Suggest a treatment plan for the patient.

Case No. 3

"Patient with headaches in the temporal regions"

Instructions: READ THE SITUATION AND GIVE DETAILED ANSWERS TO THE QUESTIONS

Patient V., 70 years old, consulted a general practitioner with complaints of constant throbbing headaches in the temporal regions, decreased vision, aching pain in the muscles of the shoulders, knee, shoulder, and elbow joints, muscle stiffness until 12 noon, weight loss of 5 kg for the last year.

History of the disease: he has been ill for 2 years, the disease began with pain in the shoulder joints and muscles, then headaches and decreased vision. Objectively: the condition is satisfactory. The skin and visible mucous membranes are of normal color. Dense and tortuous temporal arteries were found, painful on palpation. Peripheral lymph nodes are not enlarged. Breathing is vesicular, no wheezing. Heart sounds are clear and rhythmic. The abdomen is soft and painless.

Examination.

General blood test: hemoglobin – 110 g/l, erythrocytes – 3.3×10^{12}/l, leukocytes – 5×10^{9}/l, ESR according to Panchenkov – 36 mm/h, band neutrophils – 5%, segmented neutrophils – 55%, lymphocytes – 34%, monocytes – 4%, eosinophils – 2%, basophils – 0%.

Biochemical blood tests: glucose – 4.47 mmol/l, total bilirubin – 15.7 μmol/l, creatinine – 66.6 μmol/l; total protein – 66.9 g/l, CRP – 35 mg/l.

Antibodies to double-stranded DNA 15 U/ml (reference values: <25 U/ml), ACCP 8 U/ml (reference values: 0-17 U/ml), ANCA 1:80 (reference values <1:40).

General urine analysis: pH 6.5, transparent, color – light yellow, density – 1.018, protein – 0.01 g/l, glucose not detected, 1-3 leukocytes in the field of view.

Questions:

1. State the expected diagnosis.
2. Justify your diagnosis.
3. Name the criteria for diagnosing this disease.
4. Make a plan for examining the patient.
5. Which laboratory changes can be observed with this disease?
6. Are there any abnormalities in the patient's general blood test? Explain.
7. Are there any abnormalities in the patient's biochemical blood test? Explain.
8. Are markers of autoimmune diseases changed? Explain.
9. Are there any abnormalities in the patient's general urine analysis? Explain.
10. Suggest a treatment plan for the patient.

Case No. 4

"Patient with pain in the knee joints"

Instructions: READ THE SITUATION AND GIVE DETAILED ANSWERS TO THE QUESTIONS

Patient M., 53 years old, complains of pain in the knee joints that occurs when going down stairs, "starting" pain, and limited range of motion.

History of illness: been ill for about 4 years, did not seek medical help, took herbal infusions. Against the background of a relatively stable course of the disease, 2-3 times a year - deterioration of health: increased pain in the knee joints and the appearance of their swelling.

Objective status: satisfactory condition, correct physique, increased nutrition. Height – 180 cm, weight – 107 kg, waist circumference – 115 cm. The skin is clean, physiological in color. The joints are of normal shape, movements are not limited, crepitus in the knee joints when moving. Respiratory system: respiratory rate - 18 per minute. Percussion - pulmonary sound, auscultation - vesicular breathing on both sides, no wheezing. Cardiovascular system: Heart sounds at the apex are moderately muffled, the accent of the second tone is over the aorta, heart rate is 84 beats per minute, the rhythm is correct. Blood pressure – 125/80 mm Hg. Art. The abdomen is enlarged in volume, symmetrical, participates in the act of breathing, soft, painless. Palpation of the abdominal organs is difficult due to excess subcutaneous fat.

Complete blood count: erythrocytes - 4.9×10^{12}/l, hemoglobin - 147 g/l, leukocytes - 8.2×10^{9}/l, eosinophils - 2%, band neutrophils - 1%, segmented neutrophils - 67 %, lymphocytes – 25%, monocytes – 4%.

Urinalysis: relative density - 1.019, protein - 0.02 g/l, epithelium - single in the field of view. ESR according to Panchenkov – 16 mm/h.

Biochemical blood test: total protein - 68 g/l, total bilirubin - 18 μmol/l, direct - 13 μmol/l, indirect - 5 μmol/l, glucose - 6.4 mmol/l, total cholesterol - 7.1 mmol / l, high density lipoprotein cholesterol - 0.78 mmol / l, triglycerides - 2.6 mmol / l, CRP - 3 mg / l. Rheumatoid factor: ELISA - 14 IU / ml (normally up to 15 IU / ml), ACCP 4 U / ml (normally up to 17 U / ml).

Questions:

1. State the expected diagnosis.
2. Justify your diagnosis.
3. Name the criteria for diagnosing this disease.
4. Make a plan for examining the patient.
5. Which laboratory changes can be observed with this disease?
6. Are there any abnormalities in the patient's general blood test? Explain.
7. Are there any abnormalities in the patient's biochemical blood test? Explain.
8. Are markers of autoimmune diseases changed? Explain.
9. Are there any abnormalities in the patient's general urine analysis? Explain.
10. Suggest a treatment plan for the patient.

Case No. 5

"Patient with spinal pain"

Instructions: READ THE SITUATION AND GIVE DETAILED ANSWERS TO THE QUESTIONS

Patient X., 33 years old, consulted a local general practitioner with complaints of weakness, pain throughout the spine (mainly at night), in both hip and knee joints, morning stiffness for up to 40 minutes, which goes away after exercise.

History: he has been ill since the age of 25; at first pain appeared in the lower back and sacrum (especially at night), later morning stiffness appeared, which went away after a short exercise.

Objectively: the condition is satisfactory, the position is active. Blood pressure – 120/80 mm Hg. Art. Heart rate – 74 beats per minute. BH – 18 per minute. Body temperature 36.9°C. There is pronounced thoracic kyphosis and cervical hyperlordosis, smoothness of the lumbar lordosis, pain on palpation along the spine, paravertebral lines and hip joints. Active and passive movements cause pain.

Examination.

X-ray of the spine and iliosacral joints: Spondylosis deformans, bilateral sacroiliitis, stage 3.

General blood test: erythrocytes – 4.2×10^{12}/l, Hb – 122 g/l, platelets – 220×10^{9}/l, leukocytes – 10×10^{9}/l, band neutrophils – 1%, segmented neutrophils –

63%, monocytes – 4%, eosinophils – 2%, lymphocytes – 30%, ESR according to Panchenkov – 38 mm/h.

Biochemical blood test: total protein - 62.5 g/l, total bilirubin -8.1 μmol/l, glucose - 5.4 mmol/l, creatinine 98 μmol/l, C-reactive protein - 45 mg/l.

Rheumatoid factor 5 IU/ml (reference values: <14 IU/ml), ACCP 7 U/ml (reference values: <17 U/ml).

General urine analysis: pH 4.7, transparent, color – straw-yellow, density – 1.015, no protein detected, no glucose detected, 1-2 leukocytes in the field of view.

Questions:

1. State the expected diagnosis.
2. Justify your diagnosis.
3. Name the criteria for diagnosing this disease.
4. Make a plan for examining the patient.
5. Which laboratory changes can be observed with this disease?
6. Are there any abnormalities in the patient's general blood test? Explain.
7. Are there any abnormalities in the patient's biochemical blood test? Explain.
8. Are markers of autoimmune diseases changed? Explain.
9. Are there any abnormalities in the patient's general urine analysis? Explain.
10. Suggest a treatment plan for the patient.

Case No. 6

"Patient with attacks of joint pain"

Instructions: READ THE SITUATION AND GIVE DETAILED ANSWERS TO THE QUESTIONS

Patient K., 62 years old, consulted a general practitioner with complaints of swelling and pain in the right ankle joint and small joints of the right foot, redness of the skin over them, and limited movement in them.

History: suffers from sudden attacks of pain in the joints of the right foot for about 8 years, when for the first time, against a background of relative well-being, intense pain appeared at night in the first toe of the right foot.

Objectively: correct physique, increased nutrition. In the area of the cartilaginous part of the auricles, painless dense formations measuring 0.2-0.3 cm, whitish at the bend, are palpated. There are bone deformities in the area of the 1st and 2nd metatarsophalangeal joints of the right foot, combined with swelling, redness of the skin and an increase in local temperature over these same joints. The right ankle joint is swollen and painful on palpation. The skin over the joint is shiny, bluish-purple in color, and hot. Blood pressure – 170/105 mm Hg. Art. Heart rate – 84 beats per minute. The boundaries of relative cardiac dullness are expanded to the left by 2 cm from the midclavicular line. Heart sounds are rhythmic and muffled.

Examination.

Complete blood count: erythrocytes – 3.9×10^{12}/l, Hb – 125 g/l, platelets – 326×10^{9}/l, leukocytes – 11.2×10^{9}/l, ESR according to Panchenkov – 27 mm/h

Biochemical blood test: uric acid – 780 μmol/l, creatinine 100 μmol/l, blood cholesterol – 6.7 mmol/l, triglycerides – 2.7 mmol/l, HDL – 1.0 mmol/l; glucose – 6.2 mmol/l, C-reactive protein – 35 mg/l.

Rheumatoid factor 12 IU/ml (reference values: <14 IU/ml), ACCP 10 U/ml (reference values: <17 U/ml).

General urine analysis: pH 3.8, cloudy, color – straw yellow, density – 1.014, urates ++, protein not detected, glucose not detected, leukocytes 1-3 in the field of view.

Questions:

1. State the expected diagnosis.
2. Justify your diagnosis.
3. Name the criteria for diagnosing this disease.
4. Make a plan for examining the patient.
5. Which laboratory changes can be observed with this disease?
6. Are there any abnormalities in the patient's general blood test? Explain.
7. Are there any abnormalities in the patient's biochemical blood test? Explain.
8. Are markers of autoimmune diseases changed? Explain.
9. Are there any abnormalities in the patient's general urine analysis? Explain.
10. Suggest a treatment plan for the patient.

Case No. 7

"Patient with Numb Fingers"

Instructions: READ THE SITUATION AND GIVE DETAILED ANSWERS TO THE QUESTIONS

Patient L., 45 years old, was admitted to the therapeutic department with complaints of increasing general weakness, limited movements and numbness of the fingers of both hands, a slight dry cough, difficulty chewing and swallowing. She considers herself sick since the age of 35, when, after severe hypothermia, she first began to notice numbness and pallor of the skin of the fingers of both hands when washing them with cold water. About a year ago, the patient began to notice difficulty swallowing, a dry cough and palpitations when walking. On examination: The skin is uniformly hyperpigmented. Deep wrinkles on the skin around the mouth. The skin of the hands and fingers is cold, compacted, evenly thickened, does not fold, and there are no wrinkles over the interphalangeal joints. The nail phalanges of all fingers are shortened. The range of passive and active movements in the interphalangeal joints is sharply reduced. Breathing is shallow, 24 per minute. A decrease in lung excursion and a symmetrical weakening of

vesicular respiration in the lower sections was revealed. Blood pressure – 110/70 mm Hg. Heart sounds are irregular, 88 per minute, single extrasystoles; The first tone over the apex and base of the xiphoid process is weakened. The abdomen is soft, painless on both superficial and deep palpation.

Examination. X-ray of the chest: signs of pneumosclerosis, mainly in the lower sections. X-ray of the hands: osteolysis of the distal phalanges, epiphyseal osteoporosis. Complete blood count: red blood cells – 3.1×10^{12}/l, hemoglobin – 95 g/l; leukocytes - 15.3×10^{9}/l; eosinophils – 2%, band neutrophils – 8%, segmented neutrophils – 72%, lymphocytes – 17%, monocytes – 1%; ESR according to Panchenkov – 27 mm/h. Biochemical blood test: total protein – 75 g/l; albumins – 40%, globulins – 60%, $\alpha1$ – 3.8%, $\alpha2$ – 12%; β – 12%; γ – 32.2%; SRP – 10 mg/l. Markers of autoimmune diseases: Scl-70 – 786.4 CU (reference values: 0-20 CU), antibodies to SSB (LA) – 3.2 CU (reference values: 0-20 CU). General urine analysis: transparent, straw-yellow, specific gravity 1.020, protein and glucose not detected, leukocytes 0-5 in the field of view, erythrocytes 0-2 in the field of view.

Questions:

1. State the expected diagnosis.
2. Justify your diagnosis.
3. Name the criteria for diagnosing this disease.
4. Make a plan for examining the patient.
5. Which laboratory changes can be observed with this disease?
6. Are there any abnormalities in the patient's general blood test? Explain.
7. Are there any abnormalities in the patient's biochemical blood test? Explain.
8. Are markers of autoimmune diseases changed? Explain.
9. Are there any abnormalities in the patient's general urine analysis? Explain.
10. Suggest a treatment plan for the patient.

Case No. 8
"Patient with Jaundice"

Instructions: READ THE SITUATION AND GIVE DETAILED ANSWERS TO THE QUESTIONS

Patient T., 42 years old, was hospitalized in a hospital on the referral of a local general practitioner with complaints of weakness, drowsiness during the day, jaundice of the skin, a feeling of heaviness in the right hypochondrium, periodic nosebleeds after physical work, abdominal enlargement, swelling in the lower extremities in the area of the feet and legs.

History: heaviness in the right hypochondrium has been bothering me for the last 3 months. Over the past month, he has noted an increase in general weakness, an enlarged abdomen and jaundice. He has been drinking vodka 200 g daily for the last year and is being seen by a narcologist. Denies drug use. There were no blood transfusions or surgical interventions.

Objectively: the condition is of moderate severity. Consciousness is clear. Number Linking Test – 40 sec. Height – 178 cm, weight – 62 kg. Skin of normal moisture, icteric. Spider veins are visible in the chest and upper back area. The sclera of the eyes is icteric. Swelling of the feet and lower third of the legs. In the lungs, breathing is vesicular, there are no adverse respiratory sounds. NPV – 18 per minute. On auscultation, heart sounds are rhythmic and there are no murmurs. Heart rate – 78 beats per minute. Blood pressure – 110/70 mm Hg. The tongue is moist, crimson, the papillae are smoothed. The abdomen is increased in volume, the navel is smoothed, dilated, tortuous veins are visible on the anterior abdominal wall radially from the navel. In a lying position, the stomach is spread out. On palpation, it is soft and painful in the right hypochondrium. The dimensions of the liver according to Kurlov are 150×150×130 mm. The lower edge of the liver is dense and lumpy on palpation. The stool is formed, brown, without pathological impurities. The dimensions of the spleen are 150×120 mm. Urination is free, painless, urine is dark yellow.

Complete blood count: red blood cells – 4.1×10^{12}/l; Hb - 122 g/l; color index – 0.9; platelets – 98×10^{9}/l, leukocytes – 3.2×10^{9}/l, eosinophils – 1%, band neutrophils – 4%, segmented neutrophils – 63%, lymphocytes – 29%, monocytes – 3%, ESR – 22 mm/ h.

Biochemical tests: total bilirubin – 130 μmol/l, direct bilirubin – 100 μmol/l, ALT – 120 U/l, AST – 164 U/l. INR – 2, albumin – 28 g/l.

Questions:

1. Assume the most likely diagnosis.
2. Justify your diagnosis.
3. Name the possible etiology of the disease.
4. Draw up and justify a plan for additional examination of the patient.
5. Explain the mechanism of development of clinical manifestations of the disease in this patient
6. Name the pathophysiological mechanisms for the development of laboratory changes in the general blood test
7. Name the pathophysiological mechanisms for the development of laboratory changes in biochemical blood tests
8. Name three diseases for differential diagnosis
9. What complications may develop in this patient?
10. Suggest a treatment plan for the patient

Case No. 9

"Blood in the stool"

Instructions: READ THE SITUATION AND GIVE DETAILED ANSWERS TO THE QUESTIONS

A 32-year-old man, when visiting a local general practitioner at a clinic, complains of loose stool mixed with blood up to 10 times a day, cramping pain in the lower abdomen before defecation, weight loss of 7 kg in 3 months. From the anamnesis: blood in the stool and unformed stool have been bothering me for 3 months. The temperature did not rise. He denies contact with infectious patients and has not traveled outside the region. I smoked 1 pack of cigarettes a day for 10

years and stopped a year ago. Denies alcohol abuse or intravenous drug addiction. There are no relatives with gastrointestinal diseases. Works as a manager, no professional hazards. Objectively: the condition is satisfactory. Temperature 36.7°C. The skin is pale and moist. Height – 175 cm, weight – 58 kg. There is vesicular breathing in the lungs, there are no adverse breath sounds. NPV – 18 per minute. On auscultation, the heart rhythm is correct, the tone ratio is normal, and there are no murmurs. Heart rate – 98 beats per minute. Blood pressure – 110/70 mm Hg. Art. (D=S). Upon examination, the abdomen is symmetrical and participates in the act of breathing. On palpation, it is soft and painful in the left flank and left iliac region. Liver according to Kurlov – 90×80×70 mm. The dimensions of the spleen are 60×40 mm. Urination is free and painless.

Complete blood count: erythrocytes – 2.7×10^{12}/l, Hb – 108 g/l, color index – 0.6, platelets – 270×10^{9}/l, leukocytes – 7.0×10^{9}/l, eosinophils – 1% , band neutrophils – 2%, segmented neutrophils – 65%, lymphocytes – 27%, monocytes – 5%, ESR – 22 mm/h. Coprogram: unformed feces, mucus +++, leukocytes – 10-15 in the field of view, erythrocytes – 5-6 in the field of view

Questions:

1. Assume the most likely diagnosis.
2. Justify your diagnosis.
3. What is the reason for the patient's weight loss in this clinical situation?
4. Draw up and justify a plan for additional examination of the patient.
5. Name the pathophysiological mechanisms of the existing laboratory changes.
6. Name three diseases for differential diagnosis.
7. Which complications may develop in this patient?
8. Name the possible extraintestinal manifestations of this disease.
9. Which groups of drugs are indicated for treating a patient in this situation? Justify your choice.
10. After 2 weeks of therapy, there was a decrease in the frequency of stools to 2 times a day, there was no blood in the stool. What are your further treatment tactics? Justify your choice.

Case No. 10
"Complications of acute tonsillitis"

Instructions: READ THE SITUATION AND GIVE DETAILED ANSWERS TO THE QUESTIONS

Patient E., 23 years old, an auto mechanic, fell ill two weeks ago after hypothermia. The local general practitioner diagnosed acute tonsillitis. Amoxicillin therapy was recommended for a course of 10 days, but after 3 days, due to a significant improvement in well-being and normalization of body temperature, the patient stopped treatment. Two weeks after these events, the patient noted the appearance of swelling on the face, general weakness and malaise, decreased

appetite, a headache, and urine became dark red in color and its quantity decreased. Along with the above symptoms, the patient was bothered by pain in the abdomen and lower back. When measuring blood pressure - blood pressure 140/90 mm Hg. Art. On examination: the skin is pale. On auscultation of the lungs, breathing is vesicular, there are no adverse respiratory sounds, respiratory rate is 17 per minute. Heart sounds are muffled, the rhythm is correct. Blood pressure – 140 and 90 mm Hg. Art. Heart rate – 90 beats per minute. The abdomen is soft and painless. The dimensions of hepatic dullness according to Kurlov are 110×90×80 mm. Diuresis – 700 ml per day.

A laboratory study was carried out. Complete blood count: hemoglobin – 136 g/l, leukocytes – 10.8×10^9 /l, ESR – 70 mm/hour.

General urine analysis: relative density - 1025, proteinuria - 1.5 g/l, leukocytes - 14-15 per field of view, red blood cells - completely cover the entire field of view.

Biochemical blood test: total protein – 62 g/l, albumin – 39 g/l, cholesterol – 4.5 mmol/l, urea – 5.6 mmol/l, creatinine – 110 μmol/l, GFR – 79.4 ml /min/1.73 m2 according to CKD-EPI, ASL-O titer – 1:1000.

Questions:

1. Assume the most likely diagnosis.
2. Justify your diagnosis.
3. Name the possible pathogenesis of the disease.
4. Name the patient's examination plan.
5. What is the reason for the decrease in diuresis in this patient?
6. Name the pathophysiological mechanisms of changes in urinary sediment in this patient
7. Which laboratory parameters should be assessed over time? Why?
8. Name three diseases for differential diagnosis.
9. Prescribe the necessary therapy.
10. Indicate in which cases immunosuppressive therapy is carried out for this disease.

Case No. 11

"Pain in the epigastrium"

Instructions: READ THE SITUATION AND GIVE DETAILED ANSWERS TO THE QUESTIONS

Patient V., 43 years old, came to the clinic with complaints of aching pain in the epigastric region, which occurs 20-30 minutes after eating; for nausea and vomiting of gastric contents, which occurs at the height of pain and brings relief; to decrease appetite. From the medical history: such complaints first appeared about 6 years ago, but the pain was relieved by taking Almagel and No-shpa. He had not previously sought medical help. Notes spring-autumn exacerbations of the disease. Feeling worse for about two days, after drinking alcohol and fried foods. Works as

a taxi driver. He eats irregularly and often drinks alcohol. He has smoked up to 2 packs of cigarettes a day for 20 years. Family history: father was treated for a stomach ulcer. Objectively: general condition is relatively satisfactory. Asthenic, low nutrition. The skin and visible mucous membranes are pale pink. Peripheral lymph nodes are not enlarged. Breathing is vesicular, no wheezing. NPV – 16 per minute. Pulse of satisfactory filling and tension, 74 beats per minute. Blood pressure - 120/80 mm Hg. Art. Heart sounds are clear and rhythmic. Heart rate – 74 beats per minute. The tongue is covered with a white coating. The abdomen is soft on palpation, painful in the epigastric region, Mendel's sign is positive, Shchetkin-Blumberg's sign is negative. The spleen is not enlarged. The effleurage symptom is negative on both sides. Stool daily, without pathological impurities.

Data from additional research methods. General blood test: hemoglobin – 130 g/l, erythrocytes – 4.2×10^{12}/l. - 1, leukocytes – 6.5×10^{9}/l, eosinophils – 1%, band neutrophils – 1%, segmented neutrophils – 60%, lymphocytes – 30%, monocytes – 8%, ESR – 10 mm/h. General urine analysis: relative density – 1018, epithelium – 2-4 in the field of view, protein, casts, salts are not detected. Biochemical blood test: glucose – 4.5 mmol/l, fibrinogen – 2.9 g/l, total protein – 68 g/l.

Questions:

1. Identify the main syndromes.
2. Formulate a diagnosis.
3. Justify the diagnosis.
4. Describe the most likely pathogenesis of the disease.
5. Draw up and justify a plan for additional examination of the patient.
6. Name three diseases for differential diagnosis.
7. Name the possible complications of this disease.
8. List the basic principles of treatment of this disease.
9. Which factor does treatment tactics fundamentally depend on?
10. How to monitor whether the disease has been cured?

Case No. 12
"Change in urine color"

Instructions: READ THE SITUATION AND GIVE DETAILED ANSWERS TO THE QUESTIONS

A 37-year-old man consulted a local general practitioner with complaints of headaches. From the anamnesis it is known that headaches appeared two years ago. The appearance of headaches is associated with a previous sore throat. At the same time, about a week after the sore throat, he noted the appearance of urine the color of "meat slop", while urination was painless, there was no pain in the lumbar region. Urine the color of "meat slop" was recorded for 2 days, then it became the usual yellow color. I didn't go to the doctors. The episode of urine the color of "meat slop" within 24 hours was repeated a year later during ARVI. The survey

was also not carried out. Family history: mother – 60 years old, often suffers from sore throats, for 2 years – arterial hypertension. My father died at the age of 55 from cancer.

On examination: condition is satisfactory. BMI – 24.2 kg/m2. The skin is clean and of normal color. There is no swelling. In the lungs there is vesicular breathing, no wheezing. Heart sounds are muffled and rhythmic. Heart rate – 70 beats per minute, blood pressure – 160/100 mm Hg. Art. The abdomen is soft and painless on palpation in all parts. The liver and spleen are not enlarged. The symptom of tapping in the lumbar region is negative.

Blood tests: red blood cells - 4.57×10^{12}/l, hemoglobin - 137 g/l, leukocytes - 5.51×10^{9}/l, leukocyte formula is not changed; platelets - 254×10*9/l, ESR - 26 mm/hour. Total cholesterol - 4.9 mmol/l, TG - 1.7 mmol/l, HDL-C - 1.2 mmol/l, LDL-C - 2.8 mmol/l; fasting glucose – 4.2 mmol/l, creatinine – 135 μmol/l, GFR (according to the CKD-EPI formula) - 58 ml/min, urea – 9.4 mmol/l, uric acid – 0.40 mmol/l, total bilirubin - 7.4 μmol/l (indirect), ALT - 39 IU/l, AST - 28 IU/l, total protein - 70 g/l, albumin - 36 g/l. In urine tests: relative density - 1014, yellow color, acidic reaction, protein - 0.88 g/l, red blood cells - 10-15 in the field of view, leukocytes - 3-4 in the field of view, squamous epithelium - single cells in the field of view, no bacteria, no mucus, urates +. Daily proteinuria - 500 mg.

Questions:

1. Assume the most likely diagnosis.
2. Justify your diagnosis.
3. Draw up and justify a plan for additional examination of the patient.
4. Explain the pathophysiological mechanisms of the development of changes in the general urine analysis.
5. What is the name of the clinical and laboratory syndrome present in this patient?
6. Which diagnostic method will allow us to finally verify the diagnosis?
7. Name three diseases for differential diagnosis.
8. Which group of antihypertensive drugs would you recommend to a patient as part of combination therapy? Justify your choice.
9. Justify the treatment tactics for this patient.
10. Name the possible complications of this disease.

Case No. 13

"Patient with pain in the lumbar region"

Instructions: READ THE SITUATION AND GIVE DETAILED ANSWERS TO THE QUESTIONS

A 24-year-old woman consulted a local general practitioner with complaints of weakness, increased body temperature to 39.2°C, nagging pain in the lumbar region, and frequent, painful urination in small quantities.

From the anamnesis it is known that she has considered herself sick since the age of 14, when she first noted the appearance of the above complaints, acute pyelonephritis was diagnosed, and treatment was carried out.

Over the next 2 years, there were repeated hospitalizations with similar complaints, and a diagnosis of chronic pyelonephritis was made. At the age of 16, the patient was offered sanatorium treatment, which gave positive results.

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

On examination: the condition is relatively satisfactory. Height - 175 cm. Weight - 64 kg. The skin is clean and of normal color. There is no swelling. In the lungs, breathing is vesicular, there are no wheezes. Heart sounds are muffled and rhythmic. Heart rate – 70 beats per minute, blood pressure – 120/80 mm Hg. Art. The abdomen is soft and painless on palpation in all parts. The liver and spleen are not enlarged. The symptom of tapping in the lumbar region is positive on the right. Frequent painful urination.

In the tests: leukocytes - 8.9 × 10^9/l, ESR - 36 mm/hour, urea - 4.3 mmol/l, creatinine - 72.6 μmol/l, total protein - 46 g/l. GFR - 92 ml/min/1.73 m^2.

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

Questions:

1. Assume the most likely diagnosis.
2. Justify your diagnosis.
3. Name the probable etiology of the disease.
4. Draw up and justify a plan for additional examination of the patient.
5. Explain the changes in the general urinalysis.
6. Name three diseases for differential diagnosis.
7. Name the possible complications of this disease.
8. List the basic principles of treatment of this disease.
9. Which research will help determine the optimal etiopathogenetic therapy?
10. How to monitor the cure of the disease?

Case No. 14

"Patient with Weakness"

Instructions: READ THE SITUATION AND GIVE DETAILED ANSWERS TO THE QUESTIONS

A 44-year-old patient went to the clinic to see a local general practitioner with complaints of weakness, fatigue, shortness of breath and palpitations with little physical exertion, a burning sensation in the tongue, and a feeling of numbness in the soles of the feet. The skin and mucous membranes are pale with a

jaundiced tint. The face is swollen, pale, gray hair. The tongue is clean, crimson, shiny, the papillae are atrophied. Heart sounds are muffled, weak systolic murmur at the apex. The liver is palpated 2 cm below the right costal arch, percussion dimensions are 150×100×80 mm. The spleen is palpated, percussion dimensions are 130×100 mm. Reflexes are strengthened, sensitivity in the feet and hands is reduced.

Clinical blood test: hemoglobin - 63 g/l, erythrocytes - 2.6 × 10^{12}/l, leukocyte formula - without features, MCV - 110 fL, Jolly bodies and Cabot rings, poikilocytosis. Bilirubin – 55 μmol/l, indirect – 45 μmol/l.

The results of the sternal puncture: erythroid hyperplasia of the bone marrow, megaloblastic type of hematopoiesis, the ratio of erythroid and myeloid elements is 1:1, the number of megakaryocytes is reduced, giant metamyelocytes are determined.

Questions:

1. What is the most likely diagnosis for this patient?
2. Justify your diagnosis.
3. What is the most likely etiology of the disease?
4. What explains the neurological symptoms present in this patient?
5. Make a plan for additional examination of the patient.
6. Explain the pathophysiological mechanisms of decreased hemoglobin in this patient?
7. Which analysis allow us to finally verify the nature of the decrease in hemoglobin?
8. Name three diseases for differential diagnosis.
9. What are your further treatment tactics?
10. Name the criteria for the effectiveness of treatment of the disease.

Case No. 15

"Patient with fever, shortness of breath, heart pain"

Instructions: READ THE SITUATION AND GIVE DETAILED ANSWERS TO THE QUESTIONS

A 24-year-old man complains of an increase in temperature up to 40°C, accompanied by chills; inspiratory shortness of breath with little physical exertion; pain in the heart area, not associated with physical activity, of moderate intensity, long-lasting. From the anamnesis it is known that he has been using heroin for 4 years (injections into the cubital veins, groin area). 2 weeks before hospitalization, he noted an increase in temperature to 40 °C. The patient took nonsteroidal anti-inflammatory drugs as antipyretics. After 3 days, the temperature dropped to 37.2-37.4 °C, and health improved somewhat. However, 10 days later the fever returned and the patient was hospitalized. On examination: the skin is pale and clean. Peripheral lymph nodes are not enlarged. BMI - 18 kg/m^2. Body temperature - 38.9

°C. In the lungs, vesicular breathing is carried out in all sections. BH – 18 per minute. The heart sounds are clear, at the base of the xiphoid process there is a systolic murmur, intensifying at the height of inspiration with breath holding. Accent 2 tone on a. pulmonalis. Blood pressure - 110/60 mm Hg. Art., heart rate - 100 beats per minute. The abdomen is soft and painless on palpation. The liver protrudes 2 cm from under the edge of the costal arch, the edge of the liver is smooth. Swelling of the feet and legs. The effleurage symptom is negative on both sides. Urination is not impaired. In the tests: red blood cells - 3.3×10^{12}/l, hemoglobin - 126 g/l, leukocytes - 15.8×10^{9}/l, band neutrophils - 15%, ESR - 42 mm/h, serum albumin - 29 g/l, creatinine - 66 μmol/l, GFR - 92 ml/min/1.73 m2, CRP - 120 mg/l (normal - up to 5 mg/l). In general urine analysis: specific gravity - 1016, red blood cells - 0-1 in the field of view. When blood was cultured for sterility, S. aureus, sensitive to Oxacillin and Ceftriaxone, was isolated twice. EchoCG data: the size of the heart chambers is not enlarged. Mitral valve: the leaflets are sealed, the nature of the movement of the leaflets is multidirectional. Tricuspid valve: the leaflets are compacted, thickened, an average echo-density structure is visualized on the middle and anterior leaflets measuring 1.86 and 1.11×0.89 cm; the nature of the movement of the valves is multidirectional, tricuspid regurgitation of the III–IV degree.

Questions:

1. Assume the most likely diagnosis.
2. Justify your diagnosis.
3. Name the diagnostic criteria for this disease.
4. Make a plan for additional examination of the patient.
5. Are there any abnormalities in the patient's blood tests? Explain.
6. Are echocardiographic parameters changed? Explain.
7. Are there any abnormalities in the patient's general urine analysis? Explain.
8. Choose a patient management tactic, non-drug therapy.
9. Suggest a drug treatment plan for the patient.
10. What are your further treatment tactics?

Case No. 16

"Patient with heart pain, hypertension"

Instructions: READ THE SITUATION AND GIVE DETAILED ANSWERS TO THE QUESTIONS

Patient R., 59 years old, a taxi driver, was walking home from the parking lot on Monday evening when he noted the appearance of severe chest pain radiating to the lower jaw and left upper limb. At home, on the advice of his wife, he tried to relieve pain with nitroglycerin without any significant effect. The total duration of the pain syndrome was more than 20 minutes, the patient called an ambulance. From the anamnesis it is known that over the past 10 years the

patient's blood pressure has been increasing, up to a maximum of 170/90 mm Hg. Smokes 20 cigarettes per day for the past 20 years. Within a month, for the first time, he noticed the appearance of chest pain after intense physical activity and that went away with rest. He was not examined and did not receive treatment. Heredity: mother - 76 years old, suffers from arterial hypertension, suffered a myocardial infarction, father - died at 55 years old from a myocardial infarction. On examination: the condition is of moderate severity. The skin is pale. Height – 168 cm, weight – 90 kg, BMI – 32 kg/m^2. Heart sounds are muffled, the accent of the second tone is heard on the aorta, the rhythm is correct. Blood pressure – 160/90 mm Hg. Heart rate – 92 beats per minute. Breathing is vesicular, there are no adverse breath sounds. BH – 22 per minute. The abdomen is soft and painless. The dimensions of hepatic dullness according to Kurlov are 110×90×80 mm. There is no peripheral edema.

In the tests: total cholesterol - 6.7 mmol/l, TG - 2.8 mmol/l, HDL-C - 0.62 mmol/l; fasting glucose – 5.2 mmol/l; creatinine – 124 μmol/l, GFR (according to the CKD-EPI formula) = 54.5 ml/min/1.73 m^2 (according to the outpatient card, a decrease in GFR to 55 ml/min/1.73 m2 was also recorded 4 months ago), albuminuria – 40 mg/day. The ECG recorded sinus rhythm with a heart rate of 92 per minute, ST segment elevation up to 4 mm I, AVL, V1-5, ST segment depression up to 2 mm II, III, AVF.

Questions:

1. Assume the most likely diagnosis.
2. Justify your diagnosis.
3. Make a plan for additional examination of the patient.
4. Are there any abnormalities in the patient's blood tests? Explain.
5. Are electrocardiographic indicators changed? Explain.
6. Choose the myocardial reperfusion strategy in this case.
7. Choose a patient management tactic, non-drug therapy.
8. Suggest a drug treatment plan for the patient.
9. Which drugs do you recommend to the patient as oral antiplatelet therapy?
10. What is the further tactics for managing the patient?

Case No. 17

"Patient with fever, shortness of breath, cough"

Instructions: READ THE SITUATION AND GIVE DETAILED ANSWERS TO THE QUESTIONS

Patient A., 45 years old, engineer, complains of chills, increased body temperature up to 39°C, inspiratory shortness of breath during normal physical activity, dry cough, pain with deep breathing and coughing on the right in the subscapular region, general weakness, fatigue, sweating in the night time. He became acutely ill three days ago after hypothermia, when the above complaints appeared. He took antipyretic drugs with little effect. I contacted the local general

practitioner at the clinic. Due to the severity of the condition, he was sent to the emergency room of the hospital at his place of residence. History: Works for 15 years as an engineer at a machine-building plant. I do not smoke. I had not been seen by a doctor before. Objectively: the general condition is serious. Skin with high humidity. Cyanosis of lips. Height - 175 cm, weight - 72 kg. Waist circumference - 100. There is no peripheral edema. Peripheral lymph nodes are not enlarged. Temperature 39 °C. The chest is normosthenic. When breathing deeply, there is some lag in breathing in the right half of the chest. BH - 24 per minute. On the right along the scapular line there is a dullness of percussion sound. On auscultation on the right below the angle of the scapula, weakened vesicular breathing and ringing fine bubbling rales are heard. The heart rhythm is correct, the tone ratio is normal, there are no noises. Heart rate – 110 beats per minute. Blood pressure - 100/60 mm Hg. On superficial palpation the abdomen is soft and painless.The liver according to Kurlov is 90×80×70 mm, upon palpation the lower edge is smooth and painless. The chair is decorated, without impurities. Urination is free and painless. General blood test: erythrocytes - 4.08×10^{12}/l, hemoglobin - 120 g/l, leukocytes - 13.2×10^{9} /l, young - 2%, rods - 12%, segments - 56%, lymphocytes - 27%, monocytes - 3%, ESR - 38 mm/h. On a plain X-ray of the chest in frontal and lateral projections: on the right in the lower and middle lobe there is a darkening in the form of an infiltrate.

Questions:

1. Assume the most likely diagnosis.
2. Justify your diagnosis.
3. Specify the criteria for assessing the severity of the disease.
4. Make a plan for additional examination of the patient.
5. Are there any abnormalities in the patient's blood tests? Explain.
6. Are the radiographic data changed? What could this indicate?
7. Which tactics does the patient need upon admission?
8. Suggest a drug treatment plan for the patient.
9. Name the criteria for the adequacy of therapy.
10. Which is the further tactics for managing the patient?

Case No. 18

"Patient with headache, tinnitus, dizziness"

Instructions: READ THE SITUATION AND GIVE DETAILED ANSWERS TO THE QUESTIONS

Patient Yu, 54 years old, called an emergency medical team. Complains of headache, tinnitus. From the anamnesis it is known that for 10 years there has been high blood pressure. For six months, unstable blood pressure (fluctuations from 120/80 to 170/110 mm Hg), accompanied by headaches. My father has had arterial hypertension since he was 50 years old. He has smoked a pack of cigarettes for 30 years. I was examined in a hospital 5 years ago and diagnosed with arterial

hypertension. He was treated irregularly, only taking captopril during headaches. Yesterday I drank too much alcohol and went to bed late. This morning I noticed a headache, ringing in the ears, flashing spots before my eyes, and dizziness. In addition, nausea appeared and there was vomiting once, which did not bring relief. Objectively: the condition is satisfactory. Consciousness is clear. BMI – 32 kg/m^2. Waist circumference (WC) – 106 cm. The face is hyperemic. Breathing in the lungs is harsh, there is no wheezing. BH - 20 per minute. The heart sounds are sonorous, the rhythm is correct, the accent of the second tone is on the aorta. The left border of the heart is 1 cm outward from the midclavicular line. Heart rate - 90 beats per minute, blood pressure - 190/120 mm Hg. on both hands. The abdomen participates in breathing, is soft, painless, the liver does not protrude from under the costal arch. The symptom of tapping in the lumbar region is negative. There is no swelling. Physiological functions are not impaired. ECG conclusion: sinus rhythm with heart rate - 90 beats per minute, signs of left ventricular hypertrophy.

Questions:

1. Assume the most likely diagnosis.
2. Justify your diagnosis.
3. Specify the criteria for determining the severity of the disease.
4. Specify the criteria for determining the risk of developing cardiovascular complications.
5. Make a plan for additional examination of the patient.
6. Are there any abnormalities in the electrocardiogram? What could they be related to?
7. Have objective data changed? What does it mean?
8. Describe the tactics of providing emergency care for this condition.
9. Suggest a non-drug treatment plan for the patient.
10. Suggest a drug therapy plan.

Case No. 19

"Patient with shortness of breath, cough, fever"

Instructions: READ THE SITUATION AND GIVE DETAILED ANSWERS TO THE QUESTIONS

Patient K., 58 years old, complains of increased expiratory shortness of breath with minor physical activity (washing, dressing), accompanied by whistling in the chest; for a paroxysmal cough with an increase in sputum up to 20 ml per day in the morning, an increase in temperature up to 37.8°C. Medical history: dry cough for the last 20 years. Over the last 10 years, he began to notice expiratory shortness of breath when walking quickly and going up to the 2nd floor. Over the past year, shortness of breath has sharply intensified and began to bother me during normal exercise, talking, and thick, scanty yellow-green sputum has appeared. Exacerbations 2 times over the past year. Deterioration within 2 weeks: the temperature rose to 37.8 °C, the cough intensified, purulent sputum appeared, its

volume increased, and expiratory shortness of breath intensified. I took Ampicillin at home 250 mg 3 times a day, Berodual 2 puffs 4 times a day without improvement. I went to the emergency room of the city hospital. Life history: smokes 1.5 packs a day for 30 years, drinks 200 ml of vodka once a month. Works as a foreman at a construction site. There are no relatives with respiratory diseases. Allergy history is not burdened. Objectively: the skin is moist, diffuse cyanosis. Temperature 37.5°C. Height – 172 cm, weight – 60 kg. The chest is enlarged in anteroposterior size, the supra- and subclavian fossae are smooth, the epigastric angle is obtuse. Boxed sound during chest percussion. The mobility of the lower pulmonary edge along the mid-axillary line is 2.5 cm. On auscultation - weakened vesicular breathing, scattered dry wheezing on both sides. BH – 24 per minute. Heart sounds are muffled, the rhythm is correct. Heart rate - 100 beats per minute. Blood pressure – 120/72 mm Hg. The abdomen is soft and painless. The dimensions of the liver according to Kurlov are 100×90×80 mm. There is no swelling. General blood test: red blood cells - 4.42×10^{12}/l, Hb -165 g/l, Ht - 50%, leukocytes -8.4×10^{9}/l, eosinophils - 2%, band neutrophils - 8%, segmented neutrophils - 62%, lymphocytes - 25%, monocytes - 4%, ESR - 28 mm/hour. General analysis of sputum is viscous and green. Leukocytes - 100 in the field of view, erythrocytes - none. According to pulse oximetry, oxygen saturation is 88%. FEV: FEV1 – 29%, VC – 52%, FEV1/FVC index – 57%. When trying with Salbutamol FEV1 increased by 2.2%.

Questions:

1. Assume the most likely diagnosis.
2. Justify your diagnosis.
3. Specify the criteria for determining the severity of the disease.
4. Make a plan for additional examination of the patient.
5. Are there any deviations from the norm in laboratory data? Explain.
6. Are there any deviations in the data of instrumental studies? Explain.
7. Have objective data changed? Explain.
8. Which tactics and therapy does the patient require upon admission?
9. Suggest a non-drug treatment plan for the patient.
10. Suggest a drug therapy plan.

Case No. 20

"Patient with chest pain, palpitations"

Instructions: READ THE SITUATION AND GIVE DETAILED ANSWERS TO THE QUESTIONS

Patient K., 48 years old, an economist, consulted a local general practitioner with complaints of compressive pain behind the sternum and in the heart area, radiating to the left shoulder, occurring when walking 100 meters, sometimes at rest, relieved by taking 1-2 tablets of nitroglycerin through 2-3 minutes, shortness of breath, palpitations with little physical exertion. Heart pain first appeared about

5 years ago. She takes nitroglycerin to relieve pain, Cardiquet 20 mg (nitrates) 2 times a day to prevent heart pain, acetylsalicylic acid 100 mg at night. I took statins for about two years, but have not taken them for the last two years. Over the past six months, exercise tolerance has decreased. The patient has been smoking for about 20 years. Heredity: father died at the age of 62 from myocardial infarction. General condition is satisfactory. Normosthenic constitution. There is no peripheral edema. Respiratory rate is 18 per minute, vesicular breathing in the lungs, no wheezing. Borders of the heart during percussion: right - the right edge of the sternum IV intercostal space, upper - III intercostal space, left - 1.0 cm medially from the left midclavicular line V intercostal space. Heart sounds are muffled, the rhythm is regular, the accent of the 2^{nd} tone over the aorta. Heart rate – 82 bpm. Blood pressure - 135/80 mm Hg. The liver and spleen are not palpable. The symptom of tapping in the lumbar region is negative. Blood lipids: total cholesterol - 6.8 mmol/l; triglycerides – 1.7 mmol/l; low-density lipoprotein cholesterol – 5.1 mmol/l; high-density lipoprotein cholesterol – 0.9 mmol/l. ECG at rest: rhythm - sinus, heart rate - 80 beats per minute. EOS was not rejected. Single ventricular extrasystole. Echo-CG: thickening of the aortic walls. The thickness of the posterior wall of the left ventricle (PLW) is 1.0 cm; the thickness of the interventricular septum (IVS) is 1.0 cm. The heart chambers are not dilated. Left ventricular ejection fraction (EF) - 57%. No disturbances in local and global contractility of the left ventricle were detected. VEM test: when performing the first stage of the load, compressive pain appeared behind the sternum, accompanied by the appearance of depression of the ST segment up to 3 mm in I, II, V2-V6, which disappeared during the recovery period. Coronary angiography: stenosis of the LAD of the left coronary artery - 80%.

Questions:

1. Formulate a clinical diagnosis.
2. Justify the clinical diagnosis.
3. Specify the criteria for determining the functional class of the disease.
4. Name the main risk factors for atherosclerosis.
5. Are there any deviations from the norm in laboratory data? Explain.
6. Are there any deviations from the norm in the data of instrumental studies? Explain.
7. Which tactics and therapy does the patient require upon admission?
8. Suggest a non-drug treatment plan for the patient.
9. Suggest a drug therapy plan.
10. Are there indications for surgical treatment in this case?

Case No. 21

"Patient with gasp, coughing"

Instructions: READ THE SITUATION AND GIVE DETAILED ANSWERS TO THE QUESTIONS

A 23-year-old man consulted a local general practitioner with complaints of asthma attacks occurring 1-2 times a month, with difficulty in exhaling, accompanied by wheezing and heaviness in the chest, paroxysmal cough with difficult to clear sputum. Recently, attacks have become more frequent up to 2 times a week, and occur at night. From the anamnesis it is known that the attacks appeared about a year ago, are observed throughout the year, appear upon contact with house dust, pollen, animal hair, strong odors, and stop on their own or after taking an Eufillin tablet. The patient's grandmother also had similar attacks of suffocation. For three years in May-June he has noticed lacrimation, nasal congestion, and sneezing. The patient's condition is satisfactory, respiratory rate is 14 per minute. The skin is clean and of normal color. On auscultation, a large number of dry whistling scattered wheezes are heard during exhalation. Heart sounds are rhythmic, clear, 90 beats per minute, blood pressure – 110/70 mm Hg. Art. The abdomen is soft and painless on palpation in all parts. The liver and spleen are not enlarged. There is no dysuria. The symptom of tapping in the lumbar region is negative on both sides. Blood tests: leukocytes – 6.0×10^9/l; segmented neutrophils – 63%; lymphocytes – 23%; eosinophils – 10%; monocytes – 4%, ESR – 10 mm/h. General analysis of sputum: viscous consistency, mucous character, leukocytes - 1-5 in the field of view, eosinophils - 20-30 in the field of view, Kurshman spirals, Charcot-Leyden crystals. Serum IgE increased threefold. Spirometry: increase in FEV1 after inhalation of Salbutamol – 25%. X-ray of the chest organs revealed no focal or infiltrative shadows.

Questions:

1. Assume the most likely diagnosis.
2. Justify your diagnosis.
3. Specify the criteria for determining the severity of the disease.
4. Make a plan for additional examination of the patient.
5. Are there any deviations from the norm in laboratory data? Explain.
6. Are there any deviations from the norm in the data of instrumental studies? Explain.
7. Suggest a non-drug treatment plan for the patient.
8. Name the groups of medications that you would currently recommend to the patient.
9. Choose further tactics for treating the patient if therapy is ineffective.
10. Which complications may the patient develop in the future?

9. Information for support staff and examination committee members

9.1. Actions of support staff before the beginning of station operation

1. Checking the compliance of the OSCE station with the standard passport, taking into account the number of examinees.
2. Checking the availability of written assignments and answer forms.
3. Checking the availability of equipment with Internet connection.
4. Carrying out other activities necessary for normal operation of the station.

9.2. Actions of support staff during station operation

1. Bringing the station back to its original form after each examinee's work.
2. Inviting the next examinees after the previous examinees release.

9.3. Actions of members of the examination committee before the start of station work

1. Checking the readiness of the station for work (availability of written tasks and answer forms).
2. Preparation of evaluation sheets (checklists), verification of personal data (full name and script number).

9.4. Actions of members of the examination committee during the work of the station

1. Identification of the examinee's identity in the evaluation sheet (checklist).
2. Registration of the examinee's answers in accordance with the parameters in the evaluation sheet (checklist).

10. Regulatory and methodological documents used to create a checklist

1. 1. Educational standard of higher education. Higher education. First stage.1-79 01-01 "General Medicine". Qualification: doctor. Approved by Resolution of the Ministry of Education of the Republic of Belarus 30.08.2013 №88.
2. Internal medicine : textbook for English-speaking students of higher medical educational esablishment. P. 1 : Cardiology. Rheumatology. Hematology / ed. by M. A. Stanislavchuk, V. K. Sierkova. – Vinnytsya : Nova Knyha, 2019. – 407p.
3. Internal medicine : textbook for English-speaking students of higher medical educational esablishment. P. 2 : Pulmonology. Gastroenterology. Nephrology. Diseases of the internal organs in countries with hot climate / ed. by M. A. Stanislavchuk, V. K. Sierkova. – Vinnytsya : Nova Knyha, 2019. – 359 p.

11. Information for the simulated patient (if necessary).

Not provided.

12. Information for the simulated colleague (if necessary).

13. Criteria for evaluating the examinee's actions (evaluation sheet or checklist)

13.1. In the evaluation sheet (checklist), a mark is made on the presence/absence of actions during their implementation by the examinee using a score: completed - 1; partially fulfilled – 0.5; not completed – 0. For the overall assessment of the examinee's answer, a conversion scale is used (shown below)

Conversion scale

Sum of points	**Mark on a 10-point scale**	**Sum of points**	**Mark on a 10-point scale**
10	10 (ten)	5	5 (five)
9	9 (nine)	4	4 (four)
8	8 (eight)	3	3 (three)
7	7 (seven)	2	2 (two)
6	6 (six)	1	1 (one)

13.2. Each position is entered by a member of the examination committee into a paper and electronic evaluation sheet.

13.3. Evaluation sheet or checklist (Appendix 1)

13.4. Answer form (Appendix 2)

Appendix 1

Checklist

Case No. 1

"Patient with joint pain, rash, low-grade fever"

for the examination station "Clinical interpretation of laboratory test results for diseases of internal organs"

of the objective structured clinical exam

Full name of the student_____

Date_____

№	Action	Points: completed – 1; done partially – 0.5; not completed – 0
1	Correctly answer the question: Name the suspected diagnosis.	
2	Correctly answer the question: Justify your diagnosis.	
3	Correctly answer the question: Name the criteria for diagnosing this disease.	
4	Correctly answer the question: Make a plan for examining the patient.	
5	Correctly answer the question: Which laboratory changes can be observed with this disease?	
6	Correctly answer the question: Are there any deviations from the norm in the patient's general blood test? Explain	
7	Correctly answer the question: Are there any deviations from the norm in the biochemical analysis of the patient's blood? Explain	
8	Correctly answer the question: Are the markers of autoimmune diseases changed? Explain	
9	Correctly answer the question: Are there any deviations from the norm in the patient's general urine analysis? Explain	
10	Correct answer to the question: Suggest a treatment plan for the patient.	
Total points:		
Grade on a 10-point scale in numbers and words:		

Examiner /_____/

Position and full name

Checklist

Case No. 2

"Patient with pain in the joints of the hands and feet"

for the examination station "Clinical interpretation of laboratory test results for diseases of internal organs"

of the objective structured clinical exam

Full name of the student_____

Date_____

№	Action	Points: completed – 1; done partially – 0.5; not completed – 0
1	Correctly answer the question: Name the suspected diagnosis.	
2	Correctly answer the question: Justify your diagnosis.	
3	Correctly answer the question: Name the criteria for diagnosing this disease.	
4	Correctly answer the question: Make a plan for examining the patient.	
5	Correctly answer the question: Which laboratory changes can be observed with this disease?	
6	Correctly answer the question: Are there any deviations from the norm in the patient's general blood test? Explain	
7	Correctly answer the question: Are there any deviations from the norm in the biochemical analysis of the patient's blood? Explain	
8	Correctly answer the question: Are the markers of autoimmune diseases changed? Explain	
9	Correctly answer the question: Are there any deviations from the norm in the patient's general urine analysis? Explain	
10	Correct answer to the question: Suggest a treatment plan for the patient.	
Total points:		
Grade on a 10-point scale in numbers and words:		

Examiner /_____/

Position and full name

Checklist

Case No. 3

"Patient with headaches in the temporal regions"

for the examination station "Clinical interpretation of laboratory test results for diseases of internal organs"

of the objective structured clinical exam

Full name of the student_____

Date_____

№	Action	**Points:** completed – 1; done partially – 0.5; not completed – 0
1	Correctly answer the question: Name the suspected diagnosis.	
2	Correctly answer the question: Justify your diagnosis.	
3	Correctly answer the question: Name the criteria for diagnosing this disease.	
4	Correctly answer the question: Make a plan for examining the patient.	
5	Correctly answer the question: Which laboratory changes can be observed with this disease?	
6	Correctly answer the question: Are there any deviations from the norm in the patient's general blood test? Explain	
7	Correctly answer the question: Are there any deviations from the norm in the biochemical analysis of the patient's blood? Explain	
8	Correctly answer the question: Are the markers of autoimmune diseases changed? Explain	
9	Correctly answer the question: Are there any deviations from the norm in the patient's general urine analysis? Explain	
10	Correct answer to the question: Suggest a treatment plan for the patient.	
Total points:		
Grade on a 10-point scale in numbers and words:		

Examiner /_____/

Position and full name

Checklist

Case No. 4

"Patient with pain in the knee joints"

for the examination station "Clinical interpretation of laboratory test results for diseases of internal organs"

of the objective structured clinical exam

Full name of the student_____

Date_____

№	Action	Points: completed – 1; done partially – 0.5; not completed – 0
1	Correctly answer the question: Name the suspected diagnosis.	
2	Correctly answer the question: Justify your diagnosis.	
3	Correctly answer the question: Name the criteria for diagnosing this disease.	
4	Correctly answer the question: Make a plan for examining the patient.	
5	Correctly answer the question: Which laboratory changes can be observed with this disease?	
6	Correctly answer the question: Are there any deviations from the norm in the patient's general blood test? Explain	
7	Correctly answer the question: Are there any deviations from the norm in the biochemical analysis of the patient's blood? Explain	
8	Correctly answer the question: Are the markers of autoimmune diseases changed? Explain	
9	Correctly answer the question: Are there any deviations from the norm in the patient's general urine analysis? Explain	
10	Correct answer to the question: Suggest a treatment plan for the patient.	
Total points:		
Grade on a 10-point scale in numbers and words:		

Examiner /_____/

Position and full name

Checklist

Case No. 5

"Patient with spinal pain"

for the examination station "Clinical interpretation of laboratory test results for diseases of internal organs"

of the objective structured clinical exam

Full name of the student_____

Date_____

№	Action	Points: completed – 1; done partially – 0.5; not completed – 0
1	Correctly answer the question: Name the suspected diagnosis.	
2	Correctly answer the question: Justify your diagnosis.	
3	Correctly answer the question: Name the criteria for diagnosing this disease.	
4	Correctly answer the question: Make a plan for examining the patient.	
5	Correctly answer the question: Which laboratory changes can be observed with this disease?	
6	Correctly answer the question: Are there any deviations from the norm in the patient's general blood test? Explain	
7	Correctly answer the question: Are there any deviations from the norm in the biochemical analysis of the patient's blood? Explain	
8	Correctly answer the question: Are the markers of autoimmune diseases changed? Explain	
9	Correctly answer the question: Are there any deviations from the norm in the patient's general urine analysis? Explain	
10	Correct answer to the question: Suggest a treatment plan for the patient.	
Total points:		
Grade on a 10-point scale in numbers and words:		

Examiner /_____/

Position and full name

Checklist

Case No. 6

"Patient with attacks of joint pain"

for the examination station "Clinical interpretation of laboratory test results for diseases of internal organs"

of the objective structured clinical exam

Full name of the student _____

Date _____

№	Action	Points: completed – 1; done partially – 0.5; not completed – 0
1	Correctly answer the question: Name the suspected diagnosis.	
2	Correctly answer the question: Justify your diagnosis.	
3	Correctly answer the question: Name the criteria for diagnosing this disease.	
4	Correctly answer the question: Make a plan for examining the patient.	
5	Correctly answer the question: Which laboratory changes can be observed with this disease?	
6	Correctly answer the question: Are there any deviations from the norm in the patient's general blood test? Explain	
7	Correctly answer the question: Are there any deviations from the norm in the biochemical analysis of the patient's blood? Explain	
8	Correctly answer the question: Are the markers of autoimmune diseases changed? Explain	
9	Correctly answer the question: Are there any deviations from the norm in the patient's general urine analysis? Explain	
10	Correct answer to the question: Suggest a treatment plan for the patient.	
Total points:		
Grade on a 10-point scale in numbers and words:		

Examiner /_____/

Position and full name

Checklist

Case No. 7

"Patient with attacks of joint pain"

for the examination station "Clinical interpretation of laboratory test results for diseases of internal organs"

of the objective structured clinical exam

Full name of the student_____

Date_____

№	Action	Points: completed – 1; done partially – 0.5; not completed – 0
1	Correctly answer the question: Name the suspected diagnosis.	
2	Correctly answer the question: Justify your diagnosis.	
3	Correctly answer the question: Name the criteria for diagnosing this disease.	
4	Correctly answer the question: Make a plan for examining the patient.	
5	Correctly answer the question: Which laboratory changes can be observed with this disease?	
6	Correctly answer the question: Are there any deviations from the norm in the patient's general blood test? Explain	
7	Correctly answer the question: Are there any deviations from the norm in the biochemical analysis of the patient's blood? Explain	
8	Correctly answer the question: Are the markers of autoimmune diseases changed? Explain	
9	Correctly answer the question: Are there any deviations from the norm in the patient's general urine analysis? Explain	
10	Correct answer to the question: Suggest a treatment plan for the patient.	
Total points:		
Grade on a 10-point scale in numbers and words:		

Examiner /_____/

Position and full name

Checklist

Case No. 8

"Patient with Jaundice"

for the examination station "Clinical interpretation of laboratory test results for diseases of internal organs"

of the objective structured clinical exam

Full name of the student_____

Date_____

№	Action	Points: completed – 1; done partially – 0.5; not completed – 0
1	Correctly answer the question: Name the expected diagnosis.	
2	Correctly answer the question: Justify your diagnosis.	
3	Correctly answer the question: Name the possible etiology of the disease.	
4	Answer the question correctly: Draw up and justify a plan for examining the patient.	
5	Correctly answer the question: Explain the mechanism of development of clinical manifestations of the disease in this patient	
6	Answer the question correctly: Name the pathophysiological mechanisms for the development of laboratory changes in a general blood test	
7	Correctly answer the question: Name the pathophysiological mechanisms for the development of laboratory changes in a biochemical blood test.	
8	Correctly answer the question: Name three diseases for differential diagnosis	
9	Correctly answer the question: What complications can develop in this patient?	
10	Answer the question correctly: Suggest a treatment plan for the patient.	
Total points:		
Grade on a 10-point scale in numbers and words:		

Examiner /_____/

Position and full name

Checklist

Case No. 9

"Blood in the stool"

for the examination station "Clinical interpretation of laboratory test results for diseases of internal organs"

of the objective structured clinical exam

Full name of the student_____

Date_____

№	Action	Points: completed – 1; done partially – 0.5; not completed – 0
1	Correctly answer the question: Name the expected diagnosis.	
2	Answer the question correctly: Justify your diagnosis.	
3	Correctly answer the question: What is the reason for the patient's weight loss in this clinical situation?	
4	Correctly answer the question: Draw up and justify a plan for additional examination of the patient	
5	Correctly answer the question: Name the pathophysiological mechanisms of the existing laboratory changes.	
6	Correctly answer the question: Name three diseases for differential diagnosis	
7	Correctly answer the question: Which complications can develop in this patient?	
8	Correctly answer the question: Name the possible extraintestinal manifestations of this disease.	
9	Correctly answer the question: Which groups of drugs are indicated for treating a patient in this situation? Justify your choice.	
10	Correctly answer the question: After 2 weeks of therapy, there was a decrease in the frequency of stools to 2 times a day, there was no blood in the stool. What are your further treatment tactics? Justify your choice.	
Total points:		
Grade on a 10-point scale in numbers and words:		

Examiner /_____/

Position and full name

Checklist

Case No. 10

"Complications of acute tonsillitis"

for the examination station "Clinical interpretation of laboratory test results for diseases of internal organs"

of the objective structured clinical exam

Full name of the student_____

Date_____

№	Action	Points: completed – 1; done partially – 0.5; not completed – 0
1	Correctly answer the question: Name the expected diagnosis.	
2	Answer the question correctly: Justify your diagnosis.	
3	Correctly answer the question: Name the possible pathogenesis of the disease	
4	Correctly answer the question: Name the patient's examination plan.	
5	Correctly answer the question: What is causing the decrease in diuresis in this patient?	
6	Correctly answer the question: Name the pathophysiological mechanisms of changes in urinary sediment in this patient	
7	Correctly answer the question: Which laboratory parameters should be assessed over time? Why?	
8	Correctly answer the question: Name three diseases for differential diagnosis.	
9	Correct answer to the question: Prescribe the necessary therapy.	
10	Correctly answer the question: Indicate in which cases immunosuppressive therapy is carried out for this disease.	
Total points:		
Grade on a 10-point scale in numbers and words:		

Examiner /_____/

Position and full name

Checklist

Case No. 11

"Pain in the epigastrium"

for the examination station "Clinical interpretation of laboratory test results for diseases of internal organs"

of the objective structured clinical exam

Full name of the student_____

Date_____

№	Action	Points: completed – 1; done partially – 0.5; not completed – 0
1	Answer the question correctly: Identify the main syndromes.	
2	Answer the question correctly: Formulate a diagnosis.	
3	Correct answer to the question: Justify the diagnosis.	
4	Answer the question correctly: Describe the most likely pathogenesis of the disease.	
5	Answer the question correctly: Draw up and justify a plan for additional examination of the patient.	
6	Correctly answer the question: Name three diseases for differential diagnosis.	
7	Answer the question correctly: Name the possible complications of this disease.	
8	Correctly answer the question: List the basic principles of treatment of this disease.	
9	Correctly answer the question: On which factor does treatment tactics fundamentally depend?	
10	Correctly answer the question: How to monitor the cure of the disease?	
Total points:		
Grade on a 10-point scale in numbers and words:		

Examiner /_____/

Position and full name

Checklist

Case No. 12

"Change in urine color"

for the examination station "Clinical interpretation of laboratory test results for diseases of internal organs"

of the objective structured clinical exam

Full name of the student_____

Date_____

№	Action	Points: completed – 1; done partially – 0.5; not completed – 0
1	Correctly answer the question: Name the expected diagnosis	
2	Answer the question correctly: Justify your diagnosis.	
3	Answer the question correctly: Draw up and justify a plan for additional examination of the patient.	
4	Correctly answer the question: Explain the pathophysiological mechanisms of the development of changes in the general urine analysis.	
5	Correctly answer the question: What is the name of the clinical and laboratory syndrome present in this patient?	
6	Correctly answer the question: Which diagnostic method will allow us to finally verify the diagnosis?	
7	Correctly answer the question: Name three diseases for differential diagnosis.	
8	Correctly answer the question: Which group of antihypertensive drugs would you recommend to the patient as part of combination therapy? Justify your choice.	
9	Correctly answer the question: Justify the treatment tactics for this patient.	
10	Answer the question correctly: Name the possible complications of this disease.	
Total points:		
Grade on a 10-point scale in numbers and words:		

Examiner /_____/

Position and full name

Checklist

Case No. 13

"Patient with pain in the lumbar region"

for the examination station "Clinical interpretation of laboratory test results for diseases of internal organs"

of the objective structured clinical exam

Full name of the student_____

Date_____

№	Action	Points: completed – 1; done partially – 0.5; not completed – 0
1	Correctly answer the question: Name the expected diagnosis.	
2	Answer the question correctly: Justify your diagnosis.	
3	Correctly answer the question: Name the presumed etiology of the disease.	
4	Answer the question correctly: Draw up and justify a plan for additional examination of the patient.	
5	Correctly answer the question: Explain the changes in the general urine test.	
6	Correctly answer the question: Name three diseases for differential diagnosis.	
7	Answer the question correctly: Name the possible complications of this disease.	
8	Correctly answer the question: List the basic principles of treatment of this disease.	
9	Correctly answer the question: Which study will help determine the optimal etiopathogenetic therapy?	
10	Correctly answer the question: How to monitor the treatment of the disease?	
Total points:		
Grade on a 10-point scale in numbers and words:		

Examiner /_____/

Position and full name

Checklist

Case No. 14

"Patient with Weakness"

for the examination station "Clinical interpretation of laboratory test results for diseases of internal organs"

of the objective structured clinical exam

Full name of the student_____

Date_____

№	Action	Points: completed – 1; done partially – 0.5; not completed – 0
1	Correctly answer the question: What is the most likely diagnosis for this patient?	
2	Answer the question correctly: Justify your diagnosis.	
3	Correctly answer the question: What is the most likely etiology of the disease?	
4	Correctly answer the question: What explains the neurological symptoms present in this patient?	
5	Correctly answer the question: Make a plan for additional examination of the patient.	
6	Correctly answer the question: Explain the pathophysiological mechanisms of decreased hemoglobin in this patient?	
7	Correctly answer the question: Which analysis will allow us to finally verify the nature of the decrease in hemoglobin?	
8	Correctly answer the question: Name three diseases for differential diagnosis.	
9	Correctly answer the question: What is your further treatment tactics?	
10	Correctly answer the question: Name the criteria for the effectiveness of treatment of the disease.	
Total points:		
Grade on a 10-point scale in numbers and words:		

Examiner /_____/

Position and full name

Checklist

Case No. 15

"Patient with fever, shortness of breath, heart pain"

for the examination station "Clinical interpretation of laboratory test results for diseases of internal organs"

of the objective structured clinical exam

Full name of the student_____

Date_____

№	Action	Points: completed – 1; done partially – 0.5; not completed – 0
1	Correctly answer the question: What is the most likely diagnosis for this patient?	
2	Answer the question correctly: Justify your diagnosis.	
3	Correctly answer the question: Name the criteria for diagnosing this disease.	
4	Correctly answer the question: Make a plan for additional examination of the patient.	
5	Correctly answer the question: Are there any abnormalities in the patient's blood tests? Explain	
6	Correctly answer the question: Are echocardiographic indicators changed? Explain.	
7	Correctly answer the question: Are there any deviations from the norm in the patient's general urine analysis? Explain.	
8	Correctly answer the question: Choose the tactics of patient management, non-drug therapy.	
9	Correctly answer the question: Suggest a drug treatment plan for the patient.	
10	Correctly answer the question: What is your further treatment tactics?	
Total points:		
Grade on a 10-point scale in numbers and words:		

Examiner /_____/

Position and full name

Checklist

Case No. 16

"Patient with heart pain, hypertension"

for the examination station "Clinical interpretation of laboratory test results for diseases of internal organs"

of the objective structured clinical exam

Full name of the student_____

Date_____

№	Action	Points: completed – 1; done partially – 0.5; not completed – 0
1	Correctly answer the question: What is the most likely diagnosis for this patient?	
2	Answer the question correctly: Justify your diagnosis.	
3	Correctly answer the question: Make a plan for additional examination of the patient.	
4	Correctly answer the question: Are there any abnormalities in the patient's blood tests? Explain.	
5	Correctly answer the question: Are electrocardiographic indicators changed? Explain.	
6	Correctly answer the question: What is the choice of myocardial reperfusion strategy in this case?	
7	Correctly answer the question: Choose the tactics of patient management, non-drug therapy.	
8	Correctly answer the question: Suggest a drug treatment plan for the patient.	
9	Correctly answer the question: Which drugs do you recommend to the patient as oral antiplatelet therapy?	
10	Correctly answer the question: What are the further tactics for managing the patient?	
Total points:		
Grade on a 10-point scale in numbers and words:		

Examiner /_____/

Position and full name

Checklist

Case No. 17

"Patient with fever, shortness of breath, cough"

for the examination station "Clinical interpretation of laboratory test results for diseases of internal organs"

of the objective structured clinical exam

Full name of the student_____

Date_____

№	Action	Points: completed – 1; done partially – 0.5; not completed – 0
1	Correctly answer the question: What is the most likely diagnosis for this patient?	
2	Answer the question correctly: Justify your diagnosis.	
3	Correctly answer the question: Specify the criteria for assessing the severity of the disease.	
4	Correctly answer the question: Make a plan for additional examination of the patient.	
5	Correctly answer the question: Are there any abnormalities in the patient's blood tests? Explain.	
6	Correctly answer the question: Are the radiographic data changed? Explain.	
7	Correctly answer the question: What tactics does the patient require upon admission?	
8	Correctly answer the question: Suggest a drug treatment plan for the patient.	
9	Correctly answer the question: Name the criteria for the adequacy of therapy.	
10	Correctly answer the question: What are the further tactics for managing the patient?	
Total points:		
Grade on a 10-point scale in numbers and words:		

Examiner /_____/

Position and full name

Checklist

Case No. 18

"Patient with headache, tinnitus, dizziness"

for the examination station "Clinical interpretation of laboratory test results for diseases of internal organs"

of the objective structured clinical exam

Full name of the student_____

Date_____

№	Action	Points: completed – 1; done partially – 0.5; not completed – 0
1	Correctly answer the question: What is the most likely diagnosis for this patient?	
2	Answer the question correctly: Justify your diagnosis.	
3	Correctly answer the question: Specify the criteria for determining the severity of the disease.	
4	Correctly answer the question: Specify the criteria for determining the risk of developing cardiovascular complications.	
5	Correctly answer the question: Make a plan for additional examination of the patient.	
6	Correctly answer the question: Are there any abnormalities in the electrocardiogram? Explain	
7	Correctly answer the question: Have objective data changed? Explain.	
8	Correctly answer the question: Describe the tactics of providing emergency care for this condition.	
9	Correctly answer the question: Suggest a non-drug treatment plan for the patient.	
10	Correctly answer the question: Suggest a drug treatment plan.	
Total points:		
Grade on a 10-point scale in numbers and words:		

Examiner /_____/

Position and full name

Checklist

Case No. 19

"Patient with shortness of breath, cough, fever"

for the examination station "Clinical interpretation of laboratory test results for diseases of internal organs"

of the objective structured clinical exam

Full name of the student_____

Date_____

№	Action	Points: completed – 1; done partially – 0.5; not completed – 0
1	Correctly answer the question: What is the most likely diagnosis for this patient?	
2	Answer the question correctly: Justify your diagnosis.	
3	Correctly answer the question: Specify the criteria for determining the severity of the disease.	
4	Correctly answer the question: Make a plan for additional examination of the patient.	
5	Correctly answer the question: Are there any deviations from the norm in laboratory data? Explain.	
6	Correctly answer the question: Are there any deviations from the norm in the data of instrumental studies? Explain.	
7	Correctly answer the question: Have objective data changed? Explain.	
8	Correctly answer the question: What tactics and therapy does the patient require upon admission?	
9	Correctly answer the question: Suggest a non-drug treatment plan for the patient.	
10	Answer the question correctly: Suggest a drug therapy plan.	
Total points:		
Grade on a 10-point scale in numbers and words:		

Examiner /_____/

Position and full name

Checklist

Case No. 20

"Patient with chest pain, palpitations"

for the examination station "Clinical interpretation of laboratory test results for diseases of internal organs"

of the objective structured clinical exam

Full name of the student_____

Date_____

№	Action	Points: completed – 1; done partially – 0.5; not completed – 0
1	Correctly answer the question: Formulate a clinical diagnosis.	
2	Answer the question correctly: Justify the clinical diagnosis.	
3	Answer the question correctly: Specify the criteria for determining the functional class of the disease.	
4	Correctly answer the question: Name the main risk factors for atherosclerosis.	
5	Correctly answer the question: Are there any deviations from the norm in laboratory data? Explain.	
6	Correctly answer the question: Are there any deviations from the norm in the data of instrumental studies? Explain.	
7	Correctly answer the question: What tactics and therapy does the patient require upon admission?	
8	Correctly answer the question: Suggest a non-drug treatment plan for the patient.	
9	Answer the question correctly: Suggest a drug therapy plan.	
10	Correctly answer the question: Are there indications for surgical treatment in this case?	
Total points:		
Grade on a 10-point scale in numbers and words:		

Examiner /_____/

Position and full name

Checklist

Case No. 21

"Patient with gasp, coughing"

for the examination station "Clinical interpretation of laboratory test results for diseases of internal organs"

of the objective structured clinical exam

Full name of the student_____

Date_____

№	Action	**Points:** completed – 1; done partially – 0.5; not completed – 0
1	Correctly answer the question: What is the most likely diagnosis for this patient?	
2	Answer the question correctly: Justify your diagnosis.	
3	Correctly answer the question: Specify the criteria for determining the severity of the disease.	
4	Correctly answer the question: Make a plan for additional examination of the patient.	
5	Correctly answer the question: Are there any deviations from the norm in laboratory data? Explain.	
6	Correctly answer the question: Are there any deviations from the norm in the data of instrumental studies? Explain.	
7	Correctly answer the question: Suggest a non-drug treatment plan for the patient.	
8	Answer the question correctly: Name the groups of medications that you would currently recommend to the patient.	
9	Correctly answer the question: Choose further tactics for treating the patient if therapy is ineffective.	
10	Correctly answer the question: What complications may develop in the patient in the future?	
Total points:		
Grade on a 10-point scale in numbers and words:		

Examiner /_____/

Position and full name

Appendix 2

Answer form

for the examination station "Clinical interpretation of laboratory results for diseases of internal organs" of an objective structured clinical exam

Full name of a certified student_____

Дата_____

1.

2.

3.

4.

5.

6._____

7.

8.

9.

10.

Signature of a cirtified student _____