

9. Reactive arthritis.
10. Myocarditis.
11. Dilated cardiomyopathy.
12. Pericarditis

List of diseases and syndromes that can be used to write a control paper 10 semester:

1. Nephrotic syndrome
2. Renal failure syndrome
3. chronic glomerulonephritis
4. tubulointerstitial nephritis.
5. Ulcerative colitis
6. Crohn's disease
7. B12 deficiency anemia
8. Hemolytic anemia
9. Lymphoma

List of diseases and syndromes that can be used for writing a control work 11 semester:

1. bronchial asthma
2. COPD
3. bronchoobstructive syndrome
4. Pneumonia
5. Lung mass
6. IHD
7. Arterial hypertension
8. Cardiomegaly syndrome
9. Heart failure syndrome
10. Chest pain syndrome.
11. Rhythm disturbance syndrome.
12. Nephrotic syndrome
13. Urinary syndrome.
14. Nephritic syndrome
15. Edema syndrome.
16. Renal failure syndrome
17. Chronic glomerulonephritis
18. Tubulointerstitial nephritis.
19. Pyelonephritis.

List of diseases and syndromes that can be used to write a control paper 12 semester:

1. Peptic ulcer disease
2. chronic pancreatitis
3. Hepatitis
4. Cirrhosis
5. Hepatomegaly syndrome
6. Splenomegaly syndrome
7. Lymphadenopathy
8. Abdominal pain syndrome.
9. Anemia.
10. Hemorrhagic syndrome
11. thrombosis
12. Hyperglycemia syndrome
13. Diabetes mellitus

- 14.Hypothyroidism syndrome
- 15.Hyperthyroidism syndrome.
- 16.Joint syndrome
- 17.Rheumatoid arthritis
- 18.Gout
19. ankylosing spondylitis
- 20.Systemic lupus erythematosus

Credit, 9 term

Midterm assessment is carried out in the form of credit. Tasks for the credit-with-mark include one points for oral quiz and one case-study.

The assignments for credit include 1 situational task.

Typical situational tasks.

When solving the problem assess the completeness and correctness of the answer, the correctness of the formulation of the diagnosis in accordance with current clinical classifications, the choice of therapeutic tactics.

Task topics:

- 1.Myocarditis.
- 2.Primary and secondary cardiomyopathies
- 3.Pericarditis
- 4.Pulmonary heart disease
- 5.Symptomatic arterial hypertension
- 6.Rheumatoid arthritis
- 7.Gout
- 8.Ankylosing spondylitis
- 9.Osteoarthritis
- 10.Ulcerative colitis
11. Crohn's disease
- 12.Irritable Bowel Syndrome
- 13.Systemic lupus erythematosus
- 14.Systemic scleroderma
- 15.Dermatomyositis
- 16.Wegener's granulomatosis
- 17.Polyarteritis nodosa.
- 18.Nonspecific aortoarteritis

Task 1. A 45-year-old patient came to the district doctor with complaints of pain of a pressing nature in the heart area, lasting for 2 days, intensified by breathing and lying in bed on his back, body temperature up to 38 ° C, chills, sweating, weakness.

About 2 weeks ago before the appearance of the above complaints after hypothermia cough, runny nose appeared, he did not consult a doctor, worked.

The patient's condition is of average severity. Skin and visible mucous membranes of usual color, pharynx clean, no hyperemia, tonsils not enlarged. Peripheral lymph nodes are not enlarged. Breathing through the nose is free. Pulmonary rate -20 per minute. At lung percussion - clear pulmonary sound. On auscultation - vesicular breathing, no rales.

Heart area is not changed. The right border of the heart is at the right edge of the sternum, the left border is 1.5 cm inward from the midclavicular line, the upper border is the third intercostal space. Heart tones are clear, in the fourth intercostal space on the left side along the parasternal line, a “scraping” noise is heard in a limited area, intensifying on inhalation and when pressing with a stethoscope. Pulse - 128 per

minute, rhythm is correct. BP - 90/60 mm Hg. The abdomen is soft, painless on palpation. Liver is not enlarged, spleen is not palpated. No edema.

CBC. ESR 30 mm/h, leukocytes $11.2 \times 10^9/l$, Hb 145 g/l.

Biochemistry - CRP +++, ALT 35 U/L.

ECG sinus rhythm, HR 124/min, widespread ST segment elevation.

Questions for the task.

1. Identify the syndromes.
2. Formulate and substantiate the diagnosis.
3. Make a plan of examination of the patient.
4. Differential diagnosis
5. Make a treatment plan.

Task 2. Female, 28 years old, not working. Complaints of severe headaches, increased blood pressure up to 210/120 mm Hg, swelling of the legs, dyspnea, increasing in the supine position, weakness, decreased urine output, decreased vision, pain in the heart area, palpitations.

From the history of the disease. She has been ill for 3 years, when headaches first began to appear. She was treated independently with folk remedies - with insignificant improvement. The last deterioration of well-being within a week, when the above-mentioned complaints appeared. She did not seek medical help. She felt worse and was taken by ambulance to the therapeutic emergency room.

From the life history. Abuses alcohol. Smokes 1-1,5 packs a day for 15 years. Hereditary anamnesis: grew up in an orphanage, does not know relatives.

Objective. The condition is severe, pale skin with earthy tinge, stiff breathing in the lungs, audible wheezing scattered wheezes, in the lower part moist silent small bubbling wheezes. Pulmonary rate 24 per min. The borders of the heart are enlarged. Heart tones are muffled, rhythmic. HR 98 per min. The abdomen is enlarged in volume due to ascites. Symptom of effleurage is negative on both sides. Massive edema of the lower legs and lumbar region.

Laboratory-instrumental studies:

CBC: ESR - 25 mm/hour; Hb - 78 g/l; erythrocytes - $2.8 \times 10^{12}/l$.

Urinalysis: erythrocytes - 3-5 in p/z, hyal. cylinders - 6-8 in the field of view.

Biochemical blood analysis: creatinine - 1050 $\mu\text{mol/L}$; urea - 35 mmol/L; total protein - 50 g/L; cholesterol - 5 mmol/L. GFR according to MDRD - 10 ml/min/ 1.73 m².

ECG: the electrical axis of the heart is horizontal, signs of myocardial hypertrophy of the left ventricle, HR 102 beats/min.

Questions for the task.

1. Identify the syndromes.
2. Formulate and substantiate the diagnosis.
3. Make a plan of examination of the patient.
4. Differential diagnosis
5. Make a treatment plan.

Task 3. Male, 20 years old, operator of a private gas station. Complaints of hemoptysis, cough, chest pain, shortness of breath, fever, weakness, discharge of urine the color of meat slops, decreased amount of urine.

From the history of the disease. He became acutely ill after a viral infection, when hemoptysis, cough, dyspnea, fever up to 38 ° C appeared. He was treated independently with antibiotics, aspirin, expectorant herbs - without improvement. Then there was a discharge of urine the color of meat slops, noted a decrease in the amount of urine. He went to the polyclinic at the place of residence. Referred to the hospital to clarify the diagnosis and treatment.

Objectively. The condition is severe. Skin and visible mucous membranes are pale in color. Percussion over the lungs is heard clear pulmonary sound. Shortening of the percussion sound in the basal areas is determined. Auscultatory respiration is vesicular with a hard tinge, weakened in the lower parts, moist fine bubbly rales are heard on both sides. Pulmonary rate 26 per min. Heart tones are rhythmic, HR 92 per

min. BP 120/80 mm Hg. Abdomen soft, painless in all parts. The palpation symptom is negative on both sides. No edema.

Laboratory-instrumental studies:

OAC: erythrocytes - $3.0 \times 10^{12}/l$; Hb - 105 g/l; Color Index - 0.7; reticulocytes - 0.5%; ESR - 15 mm/hour; leukocytes - $7.8 \times 10^9/l$.

General urinalysis: protein - 0.068 g/l, granular cylinders; erythrocytes - 8-10 in the field of view.

Biochemical analysis of blood: CRP +++; fibrinogen 8 g/l.

Immuno-Fermental Analysis of kidney biopsy specimen: antibodies to the basal membrane of the tubules.

Chest radiography: infiltrative shadows in the root and basal areas on both sides.

Questions for the task.

1. Identify the syndromes.
2. Formulate and substantiate the diagnosis.
3. Make a plan of examination of the patient.
4. Differential diagnosis
5. Make a treatment plan.

Task 4. Female, 56 years old, economist. Complaints of pain in wrist, elbow, shoulder, knee and temporomandibular joints, stiffness in the morning for several hours, stifling pain in the right and left subcostal areas, periodic increase in body temperature to 37.5-38 ° C.

From the history of the disease. She became ill 9 years ago, when pain appeared in the wrist, metacarpophalangeal and proximal interphalangeal joints of the hands, subfebrile. She received diclofenac, delagil, noted improvement. For the last 3 years she has been experiencing paresthesias, poorly healing trophic ulcers of the lower leg, frequent respiratory infections. Currently admitted to the rheumatologic department.

Objective. Skin and mucous membranes are pale jaundiced. Submandibular, axillary and inguinal lymph nodes are enlarged, not adherent to the surrounding tissues, dense and painless, 1 to 1.5 cm in size.

Expressed deformity of the interphalangeal joints of the hands with the formation of a swan-neck type deformity of the fingers, ulnar deviation, foot deformity with the formation of hallus valgus, hammer-shaped change of the fingers with subluxations in the metatarsophalangeal joints. The liver protrudes 6 cm from under the rib arch along the right midclavicular line, dense, painless. An enlarged, dense, painless spleen is palpated in the left subcostal region.

Laboratory and instrumental investigations:

CBC: Hb - 96 g/l; leukocytes - $3.5 \times 10^9/l$; neutrophils - 32%; lymphocytes - 58%; monocytes - 10%.

Blood biochemical analysis: bilirubin - 32 $\mu\text{mol/L}$; indirect - 14 $\mu\text{mol/L}$; direct - 18 $\mu\text{mol/L}$; AsAT - 116 U/L (N 0-35 U/L); AlAT - 119 U/L (N 0-45 U/L).

Rheumatoid factor - 1:1240. ACCP +. Cryoglobulinemia ++.

Ultrasound of abdominal organs: hepatomegaly 18.5 x12.4 x12.8 cm, parenchyma of increased echogenicity; splenomegaly 16.8 x9.5 cm, parenchyma of increased echogenicity.

Questions for the task.

1. Highlight the syndromes.
2. Formulate and substantiate the diagnosis.
3. Make a plan of examination of the patient.
4. Differential diagnosis
5. Make a treatment plan.

Task 5. Female, 54 years old, engineer. Complaints of increased body temperature up to 38 °C, swelling on the face, hands, numbness of the fingers, shortness of breath at a small physical load, sharp general weakness.

From the history of the disease. Four years ago dense swellings appeared on the face, hands, in six months fever up to 38 °C, dyspnea, progressive general weakness. She was hospitalized at the place of residence, treated with antibiotics, cardiac glycosides - without effect: fever persisted, dyspnea increased.

During the year she lost 10 kg in weight. Treatment with prednisolone 30 mg/day was started in the clinic. As a result of treatment, body temperature normalized and dyspnea decreased. Two weeks ago for the first time changes in urine were detected: specific gravity - 1020; protein - 6.5 g/l; leukocytes - 1-2 in the field of view; erythrocytes - 15-20 in the field of view. A week ago nausea, vomiting, headache appeared. Pulse 110 beats/min; BP 200/130 mm Hg, three days before hospitalization anuria developed, blood creatinine - 904 $\mu\text{mol/l}$; K^+ - 7.4 mEq/l; Na^+ - 123 mEq/l. Currently admitted to the rheumatologic department.

Objective. Condition of average severity. Mask-like face. Dense edema on the face, hands, arms, forearms. Raynaud's syndrome. Musculoskeletal system, joints without features. Vesicular breathing, crepitation in the lower basal areas on both sides. Respiratory rate 22 per min at rest. The borders of the heart are not dilated. Heart tones are muffled, rhythmic. Pulse 84 beats/min; BP 120/80 mm Hg. Liver, spleen are not enlarged.

Laboratory and instrumental studies:

CBC: Hb - 93 g/l; leukocytes - $10.2 \times 10^9/\text{l}$; leukocytic formula: neutrophils n/a - 9%, s/a - 66%, eosinophils - 1%, basophils - 1%, monocytes - 6%, lymphocytes - 22%; ESR - 40 mm/h.

AB to Scl70 1 : 640; AB to Sm 1 : 148. LE 1 : 10. Complement 68 units.

ECG: sinus rhythm, diffuse myocardial changes.

External respiratory function: Lung vital capacity - 55 %; maximal lung ventilation - 60 %; Tiffno's test - 86 %.

Lung X-ray fluoroscopy: interstitial pulmonary pattern in basal parts is strengthened. There are no focal changes. Pleural sinuses are free.

Questions to the task.

1. Highlight the syndromes.
2. Formulate and justify the diagnosis.
3. Make a plan of examination of the patient.
4. Differential diagnosis
5. Make a treatment plan.

Task 6. 33-year-old man, a teacher. Complaints of sharp weakness in all muscle groups, difficulty swallowing, voice hoarseness, weight loss.

From the history of the disease. He became acutely ill 3 months ago, when suddenly there was a single vomiting after a meal, body temperature rose to subfebrile figures. The next day pain in the muscles of the extremities appeared, which gradually increased during a month, muscle weakness was added. Two weeks later, erythematous rashes appeared on the face, chest, over the small joints of the hands.

Subfebrile fever persisted. No data on any infectious disease were obtained during examination in the infectious disease hospital. During his stay in the hospital, dysphagia, dysphonia, diffuse hyperemia of the face and "decollete zone", para-orbital erythema and edema, tetraparesis appeared. He was transferred to the Clinic of Nervous Diseases, where signs of bulbar syndrome were detected. Episodes of fever persisted. There appeared dysphonia, dysphagia, hyperemia over the area of joints, progressive weakness in all muscle groups, most pronounced in proximal parts, weakness of neck muscles. He lost weight by 10 kg.

Objective. Atrophy of shoulder girdle muscles was noted. Vesicular breathing in the lungs. Heart tones muffled. Pulse 90 beats/min, BP 130/80 mm Hg. There was pain in the epigastric region. The liver and spleen were not enlarged. The kidneys were not palpated.

Laboratory-instrumental investigations:

CBC: Hb - 130 g/l; leukocytes - $15 \times 10^9/\text{l}$; leukocytic formula: p/e neutrophils - 8%, s/e neutrophils - 69%, lymphocytes - 12%, monocytes - 9%, eosinophils - 1%; platelets - $238 \times 10^9/\text{l}$; ESR - 25 mm/h. Biochemical analysis of blood: total protein - 68 g/l; albumin - 50 % (N 46.9-61.4 %), globulins: α_1 - 4.5 % (N 2.2-4.2 %); α_2 - 10.3 % (N 7.9-10.9 %); β - 12.2 % (N 10.2-18.3 %); γ - 23.8 % (N 17.6-25.4 %); AsAT - 400 U/L (N = 8-33 U/L); AlAT - 245 U/L (N = 4-36 U/L); Creatinine phosphokinase - 11460 U/L (N up to 200 U/L).

Blood immunologic study: CRP +; IgA - 1.5 g/L (N 0.9-4.5 g/L); IgG - 13.0 g/L (N 8-18 g/L); IgM - 2.02 g/L (N 0.6-2.8 g/L).

Urinalysis: relative density 1021; leukocytes - units in the field of view, no erythrocytes.

ECG: sinus rhythm 90 beats/min.

Biopsy of the shoulder muscle: in the biopsy specimen there are separate muscle fibers, swollen, homogenized, small lymphoplasmocytic infiltrates in the intermuscular connective tissue.

Questions for the task.

1. Identify the syndromes.
2. Formulate and justify the diagnosis.
3. Make a plan of examination of the patient.
4. Differential diagnosis
5. Make a treatment plan.

Credit, 11 term

The assignments for credit include 1 question.

1. Myocarditis. Epidemiology. Etiology, pathogenesis. Classification. Clinical picture. Variants of course. Instrumental and laboratory diagnostics. Diagnostic criteria. Differential diagnosis. Prognosis. Complications. Principles of therapy.
2. exudative pericarditis. Etiology and pathogenesis. Variants of course. Clinical manifestations. Laboratory and instrumental diagnostics. Differential diagnosis. Treatment taking into account the etiologic factor. Indications for pericardial puncture.
3. pulmonary artery thromboembolism. Etiology and pathogenesis. Classification. Course variants. Clinical manifestations. Laboratory and instrumental diagnostics. Differential diagnosis. Treatment taking into account risk stratification.
4. Adhesive (constrictive) pericarditis. Etiology. Mechanism of development and peculiarities of blood circulation disturbance. Clinic. Diagnosis. Treatment. Indications for surgical treatment. Prognosis.
5. Myocardiodystrophies. Definition. Etiology and pathogenesis. Classification. Main clinical manifestations. Diagnostic criteria. Differential diagnosis. Treatment. Prevention.
6. extrasystole. Definition. Epidemiology. Etiology. Pathogenesis. Clinical manifestations. ECG-diagnosis. Treatment and prevention of extrasystoles.
7. Paroxysmal tachycardia. Classification. Etiology. Pathogenesis. Clinical picture of an attack of paroxysmal tachycardia. ECG-diagnosis. Emergency therapy. Indications for electrical pulse therapy. Prognosis. Prophylaxis.
8. Atrial and ventricular fibrillation. Etiology and pathogenesis. Classification. Clinical manifestations. ECG-diagnosis. Therapy depending on the form. Indications for electropulse therapy. Complications. Prevention of complications. Prognosis.
9. Conduction disorders. Etiology and pathogenesis. Classification. Clinical manifestations. ECG-diagnosis. Complications. Treatment. Prognosis.
10. Sinus node weakness syndrome (SNWS). Etiology. Clinical manifestations. Principles of diagnosis and therapy. Indications for implantation of an artificial pacemaker.
11. Hypertrophic cardiomyopathy. Contribution of genetic factors. Pathogenesis of intracardiac hemodynamic disorders. Main clinical manifestations. Laboratory and instrumental diagnostics. Differential diagnosis. Variants of course. Prognosis. Medical and surgical treatment.
12. Restrictive cardiomyopathy. Epidemiology. Etiology. Pathogenesis of hemodynamic disorders. Main clinical manifestations. Diagnostic principles. Differential diagnosis. Course and complications. Principles of conservative and operative treatment.
13. Dilated cardiomyopathy. Epidemiology. Etiology. Pathogenesis of hemodynamic disorders. Main clinical manifestations. Diagnostic principles. Differential diagnosis. Course and complications. Principles of conservative and operative treatment.

14. Symptomatic arterial hypertension of renal genesis. Classification. Etiology. Pathogenesis of increased blood pressure. Features of the clinical picture. Laboratory and instrumental diagnosis. Differential diagnosis. Medication and surgical treatment. Complications. Prognosis.
15. Secondary arterial hypertension of endocrine genesis. Etiology. Pathogenesis. Features of clinical picture. Laboratory and instrumental diagnosis. Differential diagnosis. Principles of treatment.
16. Chronic pyelonephritis. Etiology and pathogenesis. Classification. Clinical manifestations. Methods of laboratory and instrumental diagnostics. Principles of therapy. Prognosis. Prophylaxis.
17. Nephrotic syndrome. Definition. Etiology and pathogenesis. Clinical manifestations. Laboratory and instrumental diagnosis. Principles of therapy. Complications. Prognosis. Prevention.
18. Renal amyloidosis. Epidemiology. Etiology and pathogenesis. Classification. Clinical picture depending on the type of amyloidosis. Laboratory and instrumental diagnostics. Treatment. Outcomes. Prognosis.
19. acute renal failure. Etiology and pathogenesis. Clinical picture. Stages. Differential diagnosis. Treatment. Indications for extracorporeal methods of treatment. Outcomes. Prognosis.
20. Chronic renal failure. Epidemiology. Etiology and pathogenesis. Main clinical syndromes. Classification. The concept of CKD. Principles of therapy. Indications for hemodialysis and kidney transplantation.

Exam, 10 term

The intermediate certification takes place in the form of an exam. The tasks include 2 theoretical questions and a situational task

1. Coarctation of the aorta. Epidemiology. Hemodynamic changes. Clinical manifestations. Course. Diagnosis and differential diagnosis. Laboratory and instrumental diagnostics. Complications. Principles of therapy. Indications for surgical treatment.
2. Myocarditis. Epidemiology. Etiology, pathogenesis. Classification. Clinical picture. Variants of course. Instrumental and laboratory diagnostics. Diagnostic criteria. Differential diagnosis. Prognosis. Complications. Principles of therapy.
3. exudative pericarditis. Etiology and pathogenesis. Variants of course. Clinical manifestations. Laboratory and instrumental diagnostics. Differential diagnosis. Treatment taking into account the etiologic factor. Indications for pericardial puncture.
4. Adhesive (constrictive) pericarditis. Etiology. Mechanism of development and peculiarities of blood circulation disturbance. Clinic. Diagnosis. Treatment. Indications for surgical treatment. Prognosis.
5. Myocardiopathies. Definition. Etiology and pathogenesis. Classification. Main clinical manifestations. Diagnostic criteria. Differential diagnosis. Treatment. Prevention.
6. extrasystole. Definition. Epidemiology. Etiology. Pathogenesis. Clinical manifestations. ECG-diagnosis. Treatment and prevention of extrasystoles.
7. Paroxysmal tachycardia. Classification. Etiology. Pathogenesis. Clinical picture of an attack of paroxysmal tachycardia. ECG-diagnosis. Emergency therapy. Indications for electrical pulse therapy. Prognosis. Prophylaxis.
8. Atrial and ventricular fibrillation. Etiology and pathogenesis. Classification. Clinical manifestations. ECG-diagnosis. Therapy depending on the form. Indications for electropulse therapy. Complications. Prevention of complications. Prognosis.
9. Conduction disorders. Etiology and pathogenesis. Classification. Clinical manifestations. ECG-diagnosis. Complications. Treatment. Prognosis.
10. Sinus node weakness syndrome (SNWS). Etiology. Clinical manifestations. Principles of diagnosis and therapy. Indications for implantation of an artificial pacemaker.
11. Hypertrophic cardiomyopathy. Contribution of genetic factors. Pathogenesis of intracardiac hemodynamic disorders. Main clinical manifestations. Laboratory and instrumental diagnostics. Differential diagnosis. Variants of course. Prognosis. Medical and surgical treatment.

12. Restrictive cardiomyopathy. Epidemiology. Etiology. Pathogenesis of hemodynamic disorders. Main clinical manifestations. Diagnostic principles. Differential diagnosis. Course and complications. Principles of conservative and operative treatment.
13. Dilated cardiomyopathy. Epidemiology. Etiology. Pathogenesis of hemodynamic disorders. Main clinical manifestations. Diagnostic principles. Differential diagnosis. Course and complications. Principles of conservative and operative treatment.
14. Symptomatic arterial hypertension of renal genesis. Classification. Etiology. Pathogenesis of increased blood pressure. Features of the clinical picture. Laboratory and instrumental diagnosis. Differential diagnosis. Medication and surgical treatment. Complications. Prognosis.
15. Secondary arterial hypertension of endocrine genesis. Etiology. Pathogenesis. Features of clinical picture. Laboratory and instrumental diagnosis. Differential diagnosis. Principles of treatment.
16. Systemic lupus erythematosus. Epidemiology. Etiology and pathogenesis. Classification. Clinical picture. Laboratory changes. Course of the disease. Diagnostic criteria. Differential diagnosis. Treatment. Significance of anticytokine therapy. Complications. Prognosis. Prophylaxis.
17. Systemic scleroderma. Epidemiology. Etiology and pathogenesis. Classification. Clinical picture. Laboratory changes. Course of the disease. Diagnostic criteria. Differential diagnosis. Treatment. Significance of anticytokine therapy. Complications. Prognosis. Prophylaxis.
18. Dermatomyositis. Epidemiology. Etiology and pathogenesis. Classification. Clinical picture. Laboratory changes. Course of the disease. Diagnostic criteria. Differential diagnosis. Treatment. Significance of anticytokine therapy. Complications. Prognosis. Prophylaxis.
19. Rheumatoid arthritis. Definition. Epidemiology. Etiology and pathogenesis. Classification. Clinical manifestations. Laboratory and instrumental methods of diagnostics. Diagnostic criteria. Differential diagnosis. Course. Treatment. Prognosis. Indications for surgical treatment.
20. Ankylosing spondylitis (Bechterew's disease). Epidemiology. Etiology. Pathogenesis. Clinical manifestations. Diagnostic criteria. Laboratory and instrumental diagnostics. Differential diagnosis. Principles of therapy. Prophylaxis.
21. Osteoarthritis. Definition. Etiology. Pathogenesis. Classification. Clinical picture. Diagnostic criteria. Diagnosis. Differential diagnosis. Principles of therapy. Prognosis. Prophylaxis.
22. Gout. Definition. Etiology. Pathogenesis. Classification. Clinical picture. Diagnostic criteria. Diagnosis. Differential diagnosis. Principles of emergency and planned therapy.
23. Reactive arthritis (Reiter's syndrome). Etiology. Pathogenesis. Clinical manifestations. Laboratory and instrumental diagnostics. Differential diagnosis. Treatment. Prophylaxis.
24. Gigantocellular arteritis (Horton's disease). Epidemiology. Etiology and pathogenesis. Clinical picture. Main clinical syndromes. Diagnostic criteria. Laboratory and instrumental diagnostics. Differential diagnosis. Treatment. Prognosis.
25. Nonspecific aortoarteritis (Takayasu's disease). Epidemiology. Etiology and pathogenesis. Clinical picture. Main clinical syndromes. Diagnostic criteria. Laboratory and instrumental diagnostics. Differential diagnosis. Treatment. Prognosis.
26. Polyarteritis nodosa. Etiology and pathogenesis. Clinical picture. Laboratory and instrumental diagnostics. Clinical variants. Diagnostic criteria. Diagnosis. Differential diagnosis. Treatment. Prognosis. Prophylaxis.
27. Wegener's granulomatosis. Epidemiology. Etiology and pathogenesis. Clinical picture. Course variants. Laboratory and instrumental diagnostics. Diagnostic criteria. Differential diagnosis. Complications. Treatment. Prognosis. Prevention.
28. Schoenlein-Genoch hemorrhagic vasculitis. Epidemiology. Etiology. Pathogenesis. Clinical variants. Diagnostic criteria. Differential diagnosis. Treatment. Complications. Course and outcome.
29. Non-Hodgkin's lymphomas. Classification. Etiology. Pathogenesis. Clinical syndromes. Differential diagnosis. Principles of diagnosis and therapy.
30. Irritable bowel syndrome. Epidemiology. Etiology, pathogenesis. Diagnostic criteria. Clinical picture. Differential diagnosis. Treatment. Prophylaxis.

31. Functional disorders of motor and secretory function of the stomach. Etiology, pathogenesis. Clinical picture. Course. Diagnostic principles. Differential diagnostics. Treatment. Prognosis. Prophylaxis.
32. Crohn's disease. Epidemiology. Etiology. Pathogenesis. Classification. Intestinal and extraintestinal manifestations. Variants of course. Complications. Laboratory and instrumental diagnostics. Differential diagnosis. Treatment. Prognosis.
33. Ulcerative colitis. Epidemiology. Etiology. Pathogenesis. Classification. Intestinal and extraintestinal manifestations. Variants of course. Complications. Laboratory and instrumental methods of diagnosis. Differential diagnosis. Treatment. Prognosis.
34. Nephrotic syndrome. Definition. Etiology and pathogenesis. Clinical manifestations. Laboratory and instrumental diagnostics. Principles of therapy. Complications. Prognosis. Prevention.
35. Renal amyloidosis. Epidemiology. Etiology and pathogenesis. Classification. Clinical picture depending on the type of amyloidosis. Laboratory and instrumental diagnostics. Treatment. Outcomes. Prognosis.
36. Acute kidney injury. Etiology and pathogenesis. Clinical picture. Stages. Differential diagnosis. Treatment. Indications for extracorporeal methods of treatment. Outcomes. Prognosis.
37. Chronic renal failure. Epidemiology. Etiology and pathogenesis. Main clinical syndromes. Classification. The concept of CKD. Principles of therapy. Indications for hemodialysis and kidney transplantation.
38. Iron deficiency anemia. Epidemiology. Etiology and pathogenesis. Main clinical syndromes. Laboratory and instrumental diagnosis. Differential diagnosis. Principles of therapy. Complications. Prevention.
39. B12-(folium)-deficiency anemias. Epidemiology. Etiology. Pathogenesis. Main clinical syndromes. Laboratory and instrumental diagnosis. Differential diagnosis. Principles of therapy. Complications. Prognosis. Prevention.
40. Acquired hemolytic anemias. Etiology and pathogenesis. The most important symptoms in intracellular and intravascular hemolysis. Laboratory diagnosis. Principles of therapy. Complications and their prevention. Prognosis. Indications for surgical treatment.
41. Thrombocytopenias. Classification. Etiology and pathogenesis. Clinical manifestations. Diagnosis and differential diagnosis. Principles of therapy. Indications for splenectomy.
42. Willebrand's disease. Etiology. Pathogenesis. Clinical variants. Diagnostic principles. Differential diagnosis. Planned and emergency therapy. Prophylaxis. Prognosis.
43. Chronic myeloleukosis. Etiology and pathogenesis. Classification. Clinical manifestations. Laboratory and instrumental diagnostics. Differential diagnosis. Principles of therapy. Complications. Indications for bone marrow and peripheral stem cell transplantation. Prognosis.
44. True polycythemia. Etiology and pathogenesis. Main clinical syndromes. Diagnostic criteria. Laboratory and instrumental diagnostics. Differential diagnosis with symptomatic erythrocytosis. Course and outcomes of the disease. Treatment. Prognosis.
45. Chronic lympholeukemia. Epidemiology. Etiology and pathogenesis. Classification. Clinical manifestations. Laboratory and instrumental diagnostics. Differential diagnosis. Principles of therapy. Complications. Prognosis.
46. Multiple myeloma. Epidemiology. Etiology. Pathogenesis. Classifications. Clinical syndromes. Diagnostic criteria. Diagnosis. Differential diagnosis. Principles of therapy. Prognosis.
47. Acute leukemia. Epidemiology. Etiology and pathogenesis. Classification. Main clinical syndromes. Laboratory and instrumental diagnosis. Differential diagnosis. Course and complications. Principles of therapy, its stages. Complications of cytostatic therapy and their correction. Prognosis and survival rate. Indications for bone marrow transplantation.
48. Lymphogranulomatosis (Hodgkin's disease). Epidemiology. Etiology and pathogenesis. Clinical variants. Clinical picture. Laboratory and instrumental diagnostics. Differential diagnosis. Course and outcomes. Treatment. Prognosis.

49. Pulmonary heart disease. Definition. Classification. Etiology. Pathogenetic significance of pulmonary hypertension. Pathogenesis of hemodynamic changes. Clinical manifestations. Laboratory and instrumental diagnosis. Principles of therapy. Complications. Prognosis.

Typical situational tasks for the exam.

Task 1. Young man, 19 years old, student. Complaints of malaise, weakness, sweating, increased body temperature up to 37.2 ° C, cough with a large amount of purulent sputum.

From the history of the disease. Complaints bother about 5 days, treated independently with lazolvan, amoxiclav. Against the background of treatment without improvement.

Life history. In childhood since 3 years notes cough with viscous sputum, periodically diarrhea, often pneumonia. Her sister has chronic diarrhea since childhood, frequent pneumonias.

Objective. Condition of average severity. Consciousness is clear. BMI 18.9 kg/m². The skin is moderately moist, clean. Chest cylindrical. Respiratory rate 16 per minute. Right below the angle of the scapula, dulling of the percussion sound. Auscultatory respiration is weakened, vesicular, on the right - dry rales in the interscapular space, below the angle of the scapula - moist, persistent, localized fine bubbling rales. Heart tones are clear, rhythmic, the ratio of tones is not disturbed, no murmurs, HR 72 per min, BP - 120/70 mm Hg. Tongue moist, covered with white plaque, abdomen soft, painless. The size of the liver is 9; 8; 7 cm. No edema. Stools are mushy, gray in color.

Laboratory-instrumental studies:

CBC: Hb - 122 g/l; erythrocytes - $3.9 \times 10^{12}/l$; leukocytes - $11.0 \times 10^9/l$; leukocytic formula: eosinophils - 2%, p/e neutrophils - 8%, s/e neutrophils - 70%, lymphocytes - 16%, monocytes - 2%; ESR - 32 mm/hour.

Coprogram: feces gray, mushy, neutral fat +++, undigested muscle fibers 12-14 in the field of view, epithelium 3-4 in the field of view, leukocytes 4-5 in the field of view.

Chest radiography: intensification and fine cellular deformation of the pattern, in the lower lobe of the right lung a darkening area with indistinct edges, with some reduction in the volume of the lobe, with many linear lucencies.

Spirography: vital capacity of lungs - 65% of due; forced expiratory volume in 1 second - 64% of due; forced vital capacity of lungs - 74% of due.

Ultrasound of abdominal cavity organs: pancreatic tissue thickening.

Task 2. 40-year-old man, a locksmith. Complaints of shortness of breath when walking, increased body temperature up to 38 ° C, chest pain, cough with sputum, headache, malaise, weakness, sweating.

From the history of the disease. He became acutely ill. Three days ago at work appeared chills, temperature rise to 39 ° C, cough with a small amount of sputum, sweating, weakness. He did not consult a doctor, took antipyretics - without effect. In 2 days he noted the appearance of dyspnea on physical exertion, increased weakness, went to the district doctor, who was referred to the hospital.

From the life history: smokes for 19 years, 1 pack a day.

Objectively. Condition of average severity. Conscious. BMI 24.6 kg/m². Skin pale, cyanosis of the lips. Peripheral lymph nodes are not enlarged. The shape of the thorax is correct, the right half of the thorax is significantly lagging behind in the act of breathing. On the right side in the lower parts of the lungs - bulging of intercostal spaces. At percussion in the lower parts of the right lung - from XI to IX ribs - dull percussion sound. At auscultation on the right side in the lower parts of the lungs there is no breathing. Above the left lung - vesicular breathing, no rales. Respiratory rate 24 per min. Heart tones are muffled, rhythmic, HR 100 per min. BP 110/80 mm Hg. Liver, spleen are not enlarged. Tongue moist, no plaque. The abdomen is soft, painless. The size of the liver according to Kurlov is 9; 8; 7 cm. The edge of the liver is soft-elastic, painless. No edema. Stool without peculiarities.

Laboratory-instrumental investigations:

CBC: Hb - 107 g/l; erythrocytes - $3.8 \times 10^{12}/l$; leukocytes - $10.8 \times 10^9/l$; leukocytic formula: eosinophils - 0%, neutrophils bacillary - 19%, neutrophils segmentonuclear - 60%, lymphocytes - 19%, monocytes - 2%; ESR - 40 mm/h.

Biochemical examination of blood: AlAT - 22 U/L; AsAT - 24 U/L; total bilirubin - 15 μ mol/L; fibrinogen - 5.7 g/L; creatinine - 96 μ mol/L.

Chest radiography: intense homogeneous darkening in the lower part of the right lung up to the level of the IV rib.

Blood gas composition: blood pO₂ - 70 mmHg; pCO₂ - 48.0 mmHg.

Pleural effusion: relative density - 1023; protein - 4.1 g/l; leukocytes - 16-20 in the field of view; erythrocytes 5-7 in the field of view; mesothelium 3-6 in the field of view; leukocytic formula: neutrophils - 97%, lymphocytes - 3%.

Task 3. Female, 43 years old, hairdresser. Complaints: general weakness, malaise, decreased appetite, weight loss, a feeling of heaviness in the right subcostal region, increased body temperature, nosebleeds, aching pain in the joints of the hands.

From the history of the disease. She had been ill for a year, when three weeks later, after dental treatment in a private dental office, her body temperature rose to 38.6 °C, jaundice appeared, pronounced weakness. She was treated in the infectious disease department with positive effect. The next deterioration in 4 months: weakness, subfebrile temperature, heaviness in the right subcostal region, nosebleeds, noted aching pains in the joints of hands and feet, decreased appetite.

Objective. Condition of average severity. Conscious. Oriented in herself, in space, in time. Weight 48 kg, height 169 cm. BMI 16.8 kg/m². Body temperature 37.8 °C. Skin and visible mucous membranes are jaundiced, moderately moist. Vascular asterisks on the chest and upper extremities. Palmar erythema. Petechial rash on the shins. No edema. Bones, joints are not changed. Peripheral lymph nodes are not palpated. Respiratory rate 17 per min at rest sitting, lying down. Vesicular respiration, no rales. Heart tones clear, rhythm correct with HR 78 per min. BP 130/80 mm Hg. The tongue is covered with white plaque. The abdomen on palpation is soft, sensitive in the right subcostal region. The liver according to Kurlov is 14; 12; 9 cm. The liver is painful on palpation, the edge is rounded, the consistency is dense, the surface is smooth. The spleen is not palpated.

Laboratory-instrumental investigations:

CBC: Hb - 105 g/L; erythrocytes - 3.8×10^{12} /L; platelets - 105×10^9 /L; leukocytes - 5.3×10^9 /L; leukocytic formula: eosinophils - 2%, neutrophils bacillary - 2%, neutrophils segmentuclear - 59%, lymphocytes - 30%, monocytes - 7%; ESR - 43 mm/hour.

Biochemical examination of blood: total bilirubin - 133 μ mol/l; direct bilirubin - 58 μ mol/l; AlAT - 495 U/l; AsAT - 385 U/l.

Serologic tests: HBsAg “+”, HBeAg “+”, anti-HBsAg class Ig M “+”, anti-HBsAg class Ig G “+”.

Exam, 12 term

**The intermediate certification takes place in the form of an exam.
The tasks include 2 theoretical questions and a situational problem**

1. Chest pain, differential diagnosis.
2. Acute coronary syndrome (ACS). Clinical manifestations, diagnosis. Treatment tactics.
3. Chronic coronary syndrome. Clinical manifestations. Diagnosis. Treatment tactics.
4. Myocarditis. Epidemiology. Etiology, pathogenesis. Classification. Clinical picture. Variants of course. Instrumental and laboratory diagnostics. Diagnostic criteria. Differential diagnosis. Prognosis. Complications. Principles of therapy.
5. Exudative pericarditis. Etiology and pathogenesis. Variants of course. Clinical manifestations. Laboratory and instrumental diagnostics. Differential diagnosis. Treatment taking into account the etiologic factor. Indications for pericardial puncture.
6. Thromboembolism of the pulmonary artery. Etiology and pathogenesis. Classification. Variants of course. Clinical manifestations. Laboratory and instrumental diagnostics. Differential diagnosis. Treatment taking into account risk stratification.
7. Extrasystole. Definition. Epidemiology. Etiology. Pathogenesis. Clinical manifestations. ECG-diagnosis. Treatment and prevention of extrasystoles.

8. Paroxysmal tachycardia. Classification. Etiology. Pathogenesis. Clinical picture of an attack of paroxysmal tachycardia. ECG-diagnosis. Emergency therapy. Indications for electrical pulse therapy. Prognosis. Prophylaxis.
9. Atrial and ventricular fibrillation. Etiology and pathogenesis. Classification. Clinical manifestations. ECG-diagnosis. Therapy depending on the form. Indications for electropulse therapy. Complications. Prevention of complications. Prognosis.
10. Dilated cardiomyopathy. Epidemiology. Etiology. Pathogenesis of hemodynamic disorders. Main clinical manifestations. Diagnostic principles. Differential diagnosis. Course and complications. Principles of conservative and operative treatment.
11. Arterial hypertension. Classification. Etiology. Pathogenesis of increased blood pressure. Features of the clinical picture. Laboratory and instrumental diagnosis. Differential diagnosis. Medical treatment.
12. Systemic lupus erythematosus. Epidemiology. Etiology and pathogenesis. Classification. Clinical picture. Laboratory changes. Course of the disease. Diagnostic criteria. Differential diagnosis. Treatment. Significance of anticytokine therapy. Complications. Prognosis. Prophylaxis.
13. Rheumatoid arthritis. Definition. Epidemiology. Etiology and pathogenesis. Classification. Clinical manifestations. Laboratory and instrumental methods of diagnostics. Diagnostic criteria. Differential diagnosis. Course. Treatment. Prognosis. Indications for surgical treatment.
14. Ankylosing spondylitis (Bechterew's disease). Epidemiology. Etiology. Pathogenesis. Clinical manifestations. Diagnostic criteria. Laboratory and instrumental diagnostics. Differential diagnosis. Principles of therapy. Prophylaxis.
15. Osteoarthritis. Definition. Etiology. Pathogenesis. Classification. Clinical picture. Diagnostic criteria. Diagnosis. Differential diagnosis. Principles of therapy. Prognosis. Prophylaxis.
16. Gout. Definition. Etiology. Pathogenesis. Classification. Clinical picture. Diagnostic criteria. Diagnosis. Differential diagnosis. Principles of emergency and planned therapy.
17. Reactive arthritis (Reiter's syndrome). Etiology. Pathogenesis. Clinical manifestations. Laboratory and instrumental diagnostics. Differential diagnosis. Treatment. Prevention.
18. Syndrome of abdominal pain. Differential diagnosis
19. Functional dyspepsia. Etiology, pathogenesis. Clinical manifestations, diagnosis. Treatment tactics.
20. Irritable bowel syndrome. Epidemiology. Etiology, pathogenesis. Diagnostic criteria. Clinical picture. Differential diagnosis. Treatment. Prevention.
21. Crohn's disease. Epidemiology. Etiology. Pathogenesis. Classification. Intestinal and extraintestinal manifestations. Variants of course. Complications. Laboratory and instrumental diagnostics. Differential diagnosis. Treatment. Prognosis.
22. Ulcerative colitis. Epidemiology. Etiology. Pathogenesis. Classification. Intestinal and extraintestinal manifestations. Variants of course. Complications. Laboratory and instrumental methods of diagnosis. Differential diagnosis. Treatment. Prognosis.
23. Cirrhosis of the liver. Etiology and pathogenesis. Classification. Clinical manifestations. Methods of laboratory and instrumental diagnostics. Principles of therapy. Prognosis. Prevention.
24. Chronic hepatitis. Etiology and pathogenesis. Classification. Clinical manifestations. Methods of laboratory and instrumental diagnostics. Principles of therapy. Prognosis. Prevention.
25. Chronic pyelonephritis. Etiology and pathogenesis. Classification. Clinical manifestations. Methods of laboratory and instrumental diagnostics. Principles of therapy. Prognosis. Prophylaxis.
26. Nephrotic syndrome. Definition. Etiology and pathogenesis. Clinical manifestations. Laboratory and instrumental diagnosis. Principles of therapy. Complications. Prognosis. Prevention.
27. Chronic renal failure. Epidemiology. Etiology and pathogenesis. Main clinical syndromes. Classification. The concept of CKD. Principles of therapy. Indications for hemodialysis and kidney transplantation.
28. Iron deficiency anemia. Epidemiology. Etiology and pathogenesis. Main clinical syndromes. Laboratory and instrumental diagnosis. Differential diagnosis. Principles of therapy. Complications. Prevention.

29. B12-(folium) - deficiency anemias. Epidemiology. Etiology. Pathogenesis. Main clinical syndromes. Laboratory and instrumental diagnosis. Differential diagnosis. Principles of therapy. Complications. Prognosis. Prevention.
30. Thrombocytopenias. Classification. Etiology and pathogenesis. Clinical manifestations. Diagnosis and differential diagnosis. Principles of therapy. Indications for splenectomy.
31. Willebrand's disease. Etiology. Pathogenesis. Clinical variants. Diagnostic principles. Differential diagnosis. Planned and emergency therapy. Prophylaxis. Prognosis.
32. Chronic myeloleukosis. Etiology and pathogenesis. Classification. Clinical manifestations. Laboratory and instrumental diagnostics. Differential diagnosis. Principles of therapy. Complications. Indications for bone marrow and peripheral stem cell transplantation. Prognosis.
33. True polycythemia. Etiology and pathogenesis. Main clinical syndromes. Diagnostic criteria. Laboratory and instrumental diagnostics. Differential diagnosis with symptomatic erythrocytosis. Course and outcomes of the disease. Treatment. Prognosis.
34. Chronic lympholeukosis. Epidemiology. Etiology and pathogenesis. Classification. Clinical manifestations. Laboratory and instrumental diagnostics. Differential diagnosis. Principles of therapy. Complications. Prognosis.
35. Multiple myeloma. Epidemiology. Etiology. Pathogenesis. Classifications. Clinical syndromes. Diagnostic criteria. Diagnosis. Differential diagnosis. Principles of therapy. Prognosis.
36. Acute lymphoblastic leukemia. Epidemiology. Etiology and pathogenesis. Classification. Main clinical syndromes. Laboratory and instrumental diagnosis. Differential diagnosis. Course and complications. Principles of therapy, its stages. Complications of cytostatic therapy and their correction. Prognosis and survival rate. Indications for bone marrow transplantation.
37. Acute non-lymphoblastic leukemia. Epidemiology. Etiology and pathogenesis. Classification. Main clinical syndromes. Laboratory and instrumental diagnosis. Differential diagnosis. Course and complications. Principles of therapy, its stages. Complications of cytostatic therapy and their correction. Prognosis and survival rate. Indications for bone marrow transplantation.
38. Lymphogranulomatosis (Hodgkin's disease). Epidemiology. Etiology and pathogenesis. Clinical variants. Clinical picture. Laboratory and instrumental diagnostics. Differential diagnosis. Course and outcomes. Treatment. Prognosis.
39. Pulmonary emphysema. COPD. Epidemiology. Etiology, pathogenesis. Classification. Clinical picture. Diagnostic principles. Treatment.
40. Bronchial asthma. Etiology, pathogenesis. Classification. Clinical picture. Diagnosis. Modern approaches to treatment.
41. Focal lung diseases. Differential diagnosis. Laboratory and instrumental methods of diagnostics.
42. Pulmonary heart. Definition. Classification. Etiology. Pathogenetic significance of pulmonary hypertension. Pathogenesis of hemodynamic changes. Clinical manifestations. Laboratory and instrumental diagnosis. Principles of therapy. Complications. Prognosis.
43. Pneumonias. Etiology, pathogenesis. Classification. Clinical picture. Diagnosis. Modern approaches to treatment.
44. Bronchobstructive syndrome. Differential diagnosis.
45. Hyperglycemia syndrome. Differential diagnosis. Approaches to therapy.

Typical task. Male, 38 years old, engineer. Complaints of increased body temperature up to 37.5 ° C, pain in the lumbar region. Pains of constant, aching character, in the lumbar region, notes stiffness of movements in the lumbar region, headache, swelling on the face in the morning.

From the history of the disease. He fell ill 3 weeks ago after a sharp hypothermia (he took a dip in the ice-hole), when the temperature rose to 38.5-39.0 ° C, there were pains in the throat, general weakness, sweating. I was treated independently with antibacterial drugs, aspirin, compresses - with improvement. 2 days ago the above complaints appeared. Notes repeated increase of BP up to 170/100 mm Hg during the last 2 years. He has not been examined or treated for arterial hypertension. He was admitted to the therapeutic emergency room.

Objectively. Condition is close to satisfactory, skin is pale, face is edematous. Breathing in the lungs is stiff, single wheezing wheezes are heard. Pulmonary rate 20 per min. Heart tones clear, rhythmic, HR 92 per min. BP 160/95 mm Hg. Pulse 92 beats/min. The abdomen on palpation is soft, moderately painful in the left and right flanks. Palpation symptom is negative on both sides, there is moderate pain along the spine in the lumbar region.

Laboratory and instrumental studies:

CBC: leukocytes - 10.4-109/l; ESR - 20 mm/hour.

Urinalysis: relative density - 1030; leukocytes - 8-12 in a field of view; erythrocytes - 10-15 in a field of view; protein - 0.44 g/l; cylinders hyal. ++. Daily protein loss - 3.8 g.

Biochemical examination of blood: total protein - 50 g/l; total cholesterol - 6.5 mmol/l; LDL cholesterol - 5.1 mmol/l, β -lipoproteins - 18.5 g/l, albumin - 43%.

ECG: sinus tachycardia, HR 96 per min, electrical axis of the heart is horizontal, signs of left ventricular hypertrophy.

Questions. Formulate a clinical diagnosis. Make an examination plan. Prescribe treatment.