CONTROL AND MEASURING INSTRUMENTS

Questions of the program for midterm control 1, 2

Course title: "Blood and lymph in pathology"
Course code: BLP 3307
Name and code of the OP: 6B10115 "Medicine"
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The contrjl and measuring tools were developed in accordance with the working curriculum of the discipline (sillabus) and discussed at a department meeting.

Protocol: № 11 « 26» 06 2025y.

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Border control №1:

1. Task to demonstrate practical skills.

1) Questioning of patients with diseases of the hematopoietic system.
2) General examination of patients with diseases of the hematopoietic system.
3) Methodology and technique of palpation of the spleen
4) Methodology and technique of performing percussion of the spleen.
5) Questioning patients with anemic syndrome.
6) General examination of patients with anemic syndrome
7) Laboratory methods of examination of patients with anemic syndrome
8) Instrumental methods of examination of patients with anemic syndrome

OPTION 1

1. A 30-year-old woman suffering from insomnia and depression was found to have folate deficiency in her blood. Indicate the importance of folate for the body:
A. is involved in the formation of red blood cells in the bone marrow
B. is involved in the formation of vitamin B-12 in the intestine
S. promotes the production of stress hormones in the body
D. plays a key role in DNA synthesis and in the normal functioning of the nervous system.
E. is important for the proper functioning of the liver and kidneys
2. To diagnose iron deficiency anemia and anemias associated with impaired heme synthesis, the main differential diagnostic feature is:
A. serum folic acid content
B. hemoglobin content in blood serum
C. leukocyte content in blood serum
D. lymphocyte content in blood serum
E. serum iron content
3. Indicate the cause of the development of funicular myelosis:
A. folate metabolism disorder
B. arachidonic acid metabolism disorder
C. Disorder of succinic acid metabolism
D. amino acid metabolism disorder
E. methylmalonic acid metabolism disorder
4. A 45-year-old man has a history of gastric resection 3 years ago. Blood test results:
The red blood cell count is 2.0×1012/l; hemoglobin is 85 g/l; color index is 1.27. What vitamin absorption disorder caused this change in erythropoiesis:
A.S
V. RR
S. A
D. B6
E. B12
5. A 29-year-old man, at a doctor's appointment, complains of paresthesia in the feet and gait instability, rapid fatigue, dizziness, pain in the lower extremities. These symptoms in B-12 deficiency anemia are associated with:
A. hypokalemia
B. funicular myelosis

C. With alcoholic encephalopathy
D. residual effects of cerebrovascular accident
E. angiopathy of the arteries of the lower extremities
6. The main diagnostic method confirming the presence of acute leukemia is:
A. clinical blood test
B. Ultrasound of the abdominal cavity
C. bone marrow examination
D. echoencephalography
E. electrocardiography
7. Name the characteristic changes in the tongue in iron deficiency anemia:
A. Raspberry tongue
V. varnished tongue
C. geographic language
D. teeth marks on the tongue
E. papillary atrophy
8. “Coagulopathies”:
A. associated with vascular damage
V. are associated with a violation of the platelet homeostasis link
S. are associated with a violation of the plasma link of homeostasis
D. are associated with a violation of the vascular link of homeostasis
E. are associated with taking medications
9. Name the characteristic signs in the blood for the third stage of chronic lymphocytic leukemia according to the RAI classification:
A. leukocytosis and erythrocytosis
B. leukocytosis and erythropenia
C. lymphocytosis and anemia
D. thrombocytosis and leukopenia
E. erythrocytosis and thrombocytopenia
10. Hepatosplenomegaly in acute leukemia is a manifestation of:
A. hemorrhagic syndrome
B. hyperplastic syndrome
C. infectious complications
D. anemic syndrome
E. sidoropenic syndrome
11. A 45-year-old woman, at a therapist's appointment, complains of general weakness, dizziness, shortness of breath during physical exertion. Examination reveals pale skin and tachycardia. Blood tests show a decrease in hemoglobin levels to 95 g/l, a decrease in serum iron levels to 5 μmol/l, and low ferritin levels. Your preliminary syndrome:
A. thrombocytopenic syndrome
B. hemorrhagic syndrome
S. anemic syndrome
D. cytopenic syndrome
E. sidoropenic syndrome
12. A 22-year-old man consulted a doctor complaining of general fatigue, brittle nails, hair loss and frequent headaches. The tests revealed a decrease in the iron level in the blood and normal levels of other microelements. Your preliminary syndrome:
A. cytopenic syndrome

B. anemic syndrome
S. sidoropenic syndrome
D. thrombocytopenic syndrome
E. hemorrhagic syndrome
13. A 60-year-old patient was examined and blood tests revealed a decrease in the level of hemoglobin and iron, as well as an elevated transferrin level. Name an additional diagnostic test to assess the level of iron deficiency:
A. iron level test, x-ray examination
B. Folate level test, abdominal ultrasound
C. Ferritin level test, endoscopic examination
D. hemoglobin level assessment, MRI of the brain
E. B-12 level analysis, CT scan
14. A 30-year-old man, at a doctor's appointment, complains of general weakness, rapid heartbeat, and dark urine. From his anamnesis, he notes that he had an infectious disease with a high temperature several days ago. Blood tests reveal elevated levels of bilirubin and reticulocytes, as well as decreased hemoglobin levels. Blood microscopy shows spherocytes. Your preliminary diagnosis:
A. B-12 deficiency anemia
B. thrombocytopenic purpura
C. iron deficiency anemia
D. hemorrhagic vasculitis
E. autoimmune hemolytic anemia
15. A 30-year-old man, at a doctor's appointment, complains of general weakness, rapid heartbeat, and dark urine. He notes from his anamnesis that he had an infectious disease with a high temperature a few days ago. Tests show elevated levels of bilirubin and reticulocytes, as well as decreased hemoglobin levels. Blood microscopy shows spherocytes. To clarify the cause, it is necessary to:
A. Determination of the level of vitamin B-12 in the blood
B. determination of the level of iron in the blood serum
C. determination of folate levels in the blood
D. tests for antigens and antibodies in the blood: direct Coombs test
E. determination of the level of red blood cells in the blood
16. Specify the characteristic signs of iron deficiency anemia:
A. hyperchromia, increased platelet count
B. hyperchromia, macrocytosis, target erythrocytes
S. hypochromia, microcytosis, increased iron-binding capacity of serum
D. hyperchromia, macrocytosis, decreased iron-binding capacity of serum
E. hyperchromia, macrocytosis, increased lymphocyte count
17. The main reason for the development of hemorrhagic syndrome in leukemia is:
A. development of hemorrhagic vasculitis
B. plasma procoagulant deficiency
C. splenomegaly
D. thrombocytopenia
E. thrombocytosis
18. Megaloblastic type of hematopoiesis is characteristic of:
A. sickle cell anemia
B. aplastic anemia
C. iron deficiency anemia

D. acute leukemia
E. B-12 deficiency anemia
19. The main symptoms of anemia are associated with:
A. intoxication
B. hypoxemia
C. malabsorption
D. violation of water-electrolyte balance
E. carbohydrate metabolism disorder
20. What disease is characterized by blast crises:
A. chronic lymphocytic leukemia
B. acute leukemia
C. chronic myelogenous leukemia
D. sickle cell anemia
E. aplastic anemia

OPTION 2

1. A 45-year-old woman complains of severe fatigue, dizziness, and pain in her lower extremities at a general practitioner's appointment. Examination reveals yellowing of the skin and sclera. Blood tests show anemia with an increase in the number of reticulocytes, as well as an increase in the level of indirect bilirubin. Your preliminary diagnosis:
A. B-12 deficiency anemia
B. acquired autoimmune hemolytic anemia
C. thrombocytopenic purpura
D. iron deficiency anemia
E. hemorrhagic vasculitis
2. Stage 4 of chronic lymphocytic leukemia is characterized by:
A. thrombocytosis and leukopenia
B. leukocytosis and thrombocytosis
C. lymphocytosis and thrombocytopenia
D. erythrocytosis and leukopenia
E. erythropenia and leukocytosis
3. A 39-year-old woman visits a doctor, complaining of general weakness, difficulty swallowing, and a lump in the throat. Examination reveals enlarged lymph nodes in the neck, dense to the touch, easily movable under the skin, not fused with surrounding tissues. The doctor made a preliminary diagnosis of lymphogranulomatosis. Specify the characteristic objective symptom.
for this diagnosis:
A. increase in body temperature
B. enlarged spleen
C. enlarged liver
D. enlarged lymph nodes
E. weight gain
4. At a doctor's appointment, a 37-year-old woman complains of dizziness, fainting, a tingling sensation in the chest, shortness of breath, and general weakness. The doctor made a preliminary diagnosis:
"Aplastic anemia". Specify the characteristic changes in the general blood test for this diagnosis:
A. erythrocytosis with leukocytosis

B. erythrocytopenia with leukocytosis
C. leukocytosis and thrombocytosis
D. leukocytosis and erythrocytosis
E. erythrocytopenia with thrombocytopenia and leukocytopenia
5. A 29-year-old woman was found to have hemorrhagic rashes on her skin during examination. Blood tests revealed severe anemia, thrombocytopenia, and moderate neutropenia. What is the mechanism for the development of this clinical and laboratory picture?
A. bone marrow hyperplasia
B. bone marrow aplasia
C. Castle factor deficiency
D. vitamin B deficiency12
E. iron deficiency
6. A 47-year-old man, during a general blood test, the following changes were found: anemia, normocytosis, normochromia and a significant increase in regenerative forms.The level of reticulocytes in the blood is significantly increased. Specify the type of anemia which The following blood parameters are characteristic:
A. chronic lymphocytic leukemia
B. autoimmune hemolytic anemia
C. acute leukemia
D. aplastic anemia
E. acute posthemorrhagic
7. A 43-year-old woman visits a doctor and complains of dizziness, darkening in her vision, decreased sensitivity in her lower extremities, a tingling sensation when walking, and general weakness. History: the above complaints have been bothering her for 6 months, and she cannot indicate a possible cause. On examination: moderate yellowness of the skin, and when palpated, the liver protrudes from under the costal margin by 2.0 cm. In the general blood test: erythrocytes - 1.3×1012/l, hemoglobin - 72 g/l, color index - 1.45, leukocytes - 4.3×109/l, eosin - 2, base - 0, pal. - 5, segmental - 66, mon. - 11, lymph. - 27, erythrocyte sedimentation rate - 14 mm/hour. Endoscopic examination revealed atrophic changes in the gastric mucosa. Name the pathological process in this case:
A. liver cirrhosis
B. Addison-Biermer disease
C. viral hepatitis C
D. iron deficiency anemia
E. autoimmune hemolytic anemia
8. A 56-year-old man consulted his family doctor complaining of increased sweating, general weakness, rapid fatigue despite usual physical activity, and weight loss over the past two months. Examination revealed enlarged cervical lymph nodes, dense on palpation. A complete blood count revealed: erythrocytes - 2.0 x1012/l; leukocytes 50.0 x10 9/l, platelets - 160 x10 9/l. What syndrome is characterized by these clinical and laboratory symptoms?
A. anemic
B. aplastic
C. lymphoproliferative
D. hemorrhagic
E. myeloproliferative
9. A 39-year-old woman developed profuse nosebleeds. History: long-term illness from viral hepatitis. Examination revealed: petechial-spotted rash on the skin, hepatomegaly and splenomegaly,

blood tests: Lee-White blood clotting time - 22 minutes. Specify the syndrome in this case:
A. lymphoproliferative
B. myeloproliferative
S. aplastic
D. hemorrhagic
E. anemic
10. A 39-year-old man visited his local doctor complaining of pain in the epigastric region. area, general weakness, fatigue. History: duodenal ulcer for a year. On examination: pale skin, pain in the epigastric region. The liver and spleen are not palpable. Blood test: hemoglobin - 90 g / l, erythrocytes - 3.5 × 1012 / l, color index - 0.77, platelets - 195 × 109 / l, reticulocytes - 0.5%. Total bilirubin - 12 μmol / l, iron - 4.5 μmol / l. Fecal occult blood test is positive. Specify the type of anemia in this patient:
A. aplastic anemia
B. hemolytic anemia
C. B12-deficiency anemia
D. acute posthemorrhagic anemia
E. chronic posthemorrhagic anemia
11. A 33-year-old man consulted a doctor about multiple pinpoint hemorrhages on the skin and mucous membranes. Blood test: hemoglobin - 100 g/l, erythrocytes - 3.1×1012/l, leukocytes - 41×109/l, also in the leukocyte formula young, immature blast forms up to 95% and mature leukocytes predominate, intermediate forms are absent; platelets - 15×109/l, eosinophils and basophils are absent; erythrocyte sedimentation rate - 52 mm/hour. Your preliminary diagnosis:
A. acute leukemia
B. hemorrhagic vasculitis
C. aplastic anemia
D. autoimmune hemolytic anemia
E. thrombocytopenic purpura
12. A 29-year-old woman consulted a doctor complaining of multiple, spontaneous, subcutaneous hemorrhages and periodic nosebleeds. According to the anamnesis, she has been noticing this condition for 6 months and does not associate it with anything. Upon examination, there are numerous subcutaneous hemorrhages of varying sizes over the entire surface of the skin. Pulse is 90 beats per minute, blood pressure is 100/70 mm Hg. Heart sounds are rapid and clear. Vesicular breathing is heard in the lungs. The tongue is clean, the pharynx is calm. On palpation, the abdomen is soft and painless. The liver and spleen are not enlarged. There are positive symptoms of a tourniquet and a pinch. Name the cause of the hemorrhagic syndrome:
A. chronic myelogenous leukemia
B. thrombocytopenia
C. acute leukemia
D. hemorrhagic vasculitis
E. chronic lymphoblastic leukemia
13. A 27-year-old man complains of hemorrhagic rashes and frequent sore throats at a doctor's appointment. From the anamnesis: he has suffered from rheumatoid arthritis since childhood and has been taking non-steroidal anti-inflammatory drugs for a long time. During the examination, the general blood test revealed: anemia, thrombocytopenia and neutropenia. The pathological condition of which is characterized by the following clinical and laboratory picture:
A. folic acid deficiency
B. myeloproliferation

C. bone marrow aplasia
D. lymphoproliferation
E. iron deficiency
14. A 36-year-old man, during a doctor's examination, was found to have enlarged lymph nodes, an enlarged spleen, and a blood test showed lymphocytic leukocytosis. These symptoms are characteristic of:
A. hemorrhagic vasculitis
B. acute leukemia
C. chronic myelogenous leukemia
D. chronic lymphocytic leukemia
E. aplastic anemia
15. A 45-year-old woman's peripheral blood tests revealed the following: hemoglobin - 66 g/l; erythrocytes - 2.19×1012/l; color index - 0.9; leukocytes - 45.0 ×109/l; neutrophils: p/y - 0.5%; s/y - 2.5%; eosinophils - 0%; prolymphocytes - 5%; lymphocytes - 92%; monocytes - 5%; platelets 80×109/l; erythrocyte sedimentation rate - 40 mm/h; moderate erythrocyte anisocytosis, Humprecht's shadows - 2-4 in the field of vision. Your preliminary diagnosis:
A. B-12 deficiency anemia
B. acute leukemia
C. chronic myelogenous leukemia
D. autoimmune hemolytic anemia
E. chronic lymphocytic leukemia
16. Specify the characteristic signs of folate deficiency anemia:
A. normochromic type of anemia
B. increased folate levels in the blood
C. hyperchromic type of anemia
D. decrease in deoxyribonuclease in the blood
E. hypochromic type of anemia
17. The main amount of iron in the human body is absorbed in the stomach:
A. in the descending colon
V. in the ileum
S. in the ascending colon
D. in the duodenum and jejunum
E. in the cecum
18. Iron is best absorbed:
A. in the form of ferritin
B. in the form of hemosiderin
S. in the form of free trivalent iron
D. in the form of free divalent iron
E. in the form of heme
19. The mechanism of yellowness of the skin in megaloblastic anemia:
A. liver damage
B. cholestasis
C. formation of indirect bilirubin during hemolysis of erythrocytes
D. malabsorption
E. cytolysis
20. In the bone marrow with autoimmune thrombocytopenia the following is observed:
A. expansion of the megakaryocytic lineage

B. narrowing of the megakaryocytic lineage
S. suppression of erythroid germ
D. expansion of the erythroid germ
E. narrowing of the erythroid lineage

OPTION 3

1. A 52-year-old man has the following indicators in his peripheral blood tests: hemoglobin - 142 g/l; erythrocytes - 4.28×1012/l; color index - 0.99; leukocytes - 41.4×109/l; neutrophils: myeloblasts - 2%; promyelocytes - 1%; myelocytes - 12%; metamyelocytes (young) - 6%; p/y - 13%; s/y - 38%; eosinophils 5%; basophils - 13%; lymphocytes - 8%; monocytes - 2%; platelets 698×109/l; erythrocyte sedimentation rate - 18 mm/h. Your preliminary diagnosis:
A. chronic lymphocytic leukemia
B. chronic myelogenous leukemia
C. acute leukemia
D. autoimmune hemolytic anemia
E. aplastic anemia
2. A 68-year-old man, at a doctor's appointment, complains of sweating, weight loss of 10 kg in the last 2 years, general weakness. On examination, the following is noted: enlargement of the liver, spleen and all groups of lymph nodes. In the general blood test: hemoglobin - 85 g / l, erythrocytes - 3.0 × 1012 / l, leukocytes - 135.0 × 109 / l, p / y - 3%, lymph. - 96 %, mon. - 1 %, erythrocyte sedimentation rate - 28 mm / hour. Total bilirubin 45 μmol / l, direct - 11 μmol / l. Serum iron - 28 mmol / l,
Coombs test is positive. Your preliminary diagnosis:
A. autoimmune hemolytic anemia
B. acute leukemia
C. chronic lymphocytic leukemia
D. chronic myelogenous leukemia
E. aplastic anemia
3. A 30-year-old man was hospitalized for pain in the epigastric region with severe circulatory-hypoxic syndrome. History of gastric ulcer. On examination: skin and visible mucous membranes are pale. Blood test: hemoglobin - 90 g/l, erythrocytes - 3.5 ×1012/l, color index - 0.7, platelets - 180.0 ×109/l, reticulocytes 0.5%. Bilirubin - 12 μmol/l, serum iron - 4.6 mmol/l. Gregersen reaction is positive. Specify the type of anemia in this patient:
A. aplastic anemia
B. hemolytic anemia
C. acute posthemorrhagic anemia
D. iron deficiency anemia
E. B-12 deficiency anemia
4. A 53-year-old woman consulted a doctor about a feeling of heaviness in the left hypochondrium. Examination revealed hypersplenomegaly. Blood test: erythrocytes - 3.1 ×1012/l, hemoglobin - 104 g/l, leukocytes - 126 ×109/l, promyelocytes - 3%, myelocytes - 5%, young - 9%, p/y - 17%, s/y - 48%, eosin - 7%, basal - 3%, lymph. - 8%, platelets - 580 ×109/l, erythrocyte sedimentation rate - 24 mm/hour. Your preliminary diagnosis:
A. chronic lymphocytic leukemia
B. acute leukemia
C. aplastic anemia

D. acute posthemorrhagic anemia
E. chronic myelogenous leukemia
5. A 53-year-old woman consulted a doctor about a feeling of heaviness in the left hypochondrium. Examination revealed hypersplenomegaly. Blood test: erythrocytes - 3.1×1012/l, hemoglobin - 104 g/l, leukocytes - 126×109/l, promyelocytes - 3%, myelocytes - 5%, young - 9%, p/y - 17%, s/y - 48%, eosin - 7%, basal - 3%, lymph. - 8%, platelets - 580×109/l, erythrocyte sedimentation rate - 24 mm/hour. Specify the characteristic changes in the bone marrow:
A. rich bone marrow due to myeloid cells
B. low myeloid cell count
C. rich bone marrow due to lymphoid cells
D. increased content of lymphoid cells
E. normal content of lymphoid cells
6. A 53-year-old woman consulted a doctor about a feeling of heaviness in the left hypochondrium. Examination revealed hypersplenomegaly. Blood test: erythrocytes - 3.1×1012/l, hemoglobin - 104 g/l, leukocytes - 126×109/l, promyelocytes - 3%, myelocytes - 5%, young - 9%, p/y - 17%, s/y - 48%, eosin. -7%, bas. - 3%, lymph. - 8%, platelets - 580×109/l, erythrocyte sedimentation rate - 24 mm/hour. Specify additional tests to establish a diagnosis:
A. endoscopic examination of the stomach
B. cytogenetic studies
C. puncture of lymph nodes
D. fecal occult blood test
E. determination of serum iron in the blood
7. A 64-year-old woman was admitted to hospital with complaints of dizziness, shortness of breath, pain in the
epigastric region, a feeling of heaviness after eating, rotten belching, general weakness. Objectively: moderate splenomegaly, decreased tactile sensitivity on the right lower limb of the "stocking" type were revealed. In the general blood test: erythrocytes 2.5 × 1012 / l, hemoglobin - 88 g / l, color index - 1.1, leukocytes 3.2 × 109 / l, platelets - 150 × 109 / l, reticulocytes - 0.2%, bilirubin - 42 mmol / l (indirect fraction 33 mmol / l). Your preliminary diagnosis:
A. acute leukemia
B. iron deficiency anemia
C. B-12 deficiency anemia
D.aplastic anemia
E. autoimmune hemolytic anemia
8. An 18-year-old man was admitted to hospital with complaints of enlarged lymph nodes, pronounced weakness. In the general blood test: erythrocytes - 2.5 ×1012/l, hemoglobin -79 g/l, color index - 0.8, leukocytes - 6.1 ×109/l, in the leukogram - blasts - 85%, lymphocytes - 10%, s/y - 5%, platelets - 100 ×109/l. Your preliminary diagnosis:
A. chronic lymphocytic leukemia
B. chronic myelogenous leukemia
C. aplastic anemia
D. acute leukemia
E. autoimmune hemolytic anemia
9. A man, 18 years old, was admitted to hospital with complaints of enlarged lymph nodes, pronounced weakness. In the general blood test: erythrocytes - 2.5 ×1012/l, hemoglobin - 79 g/l, color index -0.8, leukocytes -6.1 ×109/l, in the leukogram - blasts - 85%, lymphocytes - 10%, s/y - 5%, platelets - 100 ×109/l. Cytochemistry for myeloperoxidase and lipids is negative, and the Schick

reaction is positive in the form of granules. Your preliminary diagnosis:
A. acute lymphoblastic leukemia
B. acute myeloid leukemia
C. aplastic anemia
D. chronic myelogenous leukemia
E. chronic lymphocytic leukemia
10. A 53-year-old man was admitted to hospital. Examination revealed pronounced splenomegaly. In the general blood test: erythrocytes - 3.2 ×1012/l, hemoglobin - 98 g/l, color index -0.9, leukocytes 120 ×109/l, promyelocytes - 12%, myelocytes - 10%, p/y - 12%, s/y - 32%, lymph. - 19%, bas. - 7%, eosin. - 8%, erythrocyte sedimentation rate - 42 mm/h. Wright and Heddelson reactions are negative. Your preliminary diagnosis:
A. chronic lymphocytic leukemia
B. chronic myelogenous leukemia
C. acute leukemia
D. aplastic anemia
E. acute leukemia
11. A 36-year-old man consulted a doctor complaining of a petechial-spotted rash on his body, nosebleeds and bleeding gums. On examination: the edge of the spleen is palpated. In the blood test - erythrocytes - 4.0 × 1012 / l, leukocytes 4.5 × 109 / l, leukocyte formula - unchanged, platelets - 12 × 109 / l, bleeding time is prolonged. Your preliminary diagnosis:
A. aplastic anemia
B. autoimmune hemolytic anemia
C. autoimmune thrombocytopenic purpura
D. hemorrhagic vasculitis
E. chronic posthemorrhagic anemia
12. A 36-year-old man has a petechial-spotted rash on his body, and his nasal,
gingival bleeding. On examination: the edge of the spleen is palpated. In the blood test - erythrocytes 4.0 ×1012/l, leukocytes 4.5 ×109/l, leukocyte formula - unchanged, platelets 12 ×109/l, bleeding time is prolonged. Specify the expected result in the myelogram:
A. increase in megakaryocytic lineage
B. hyperplasia of the erythroid lineage
C. reduction of megakaryocytic lineage
D. irritation of the megakaryocytic lineage
E. decrease in the number of myeloid cells
13. A 28-year-old man was treated for 3 weeks for stomatitis without any effect.
increasing weakness, sweating. Objectively: body temperature is 38.8 degrees, skin is pale and moist. Gingival hyperplasia, ulcerative necrotic stomatitis. Submandibular lymph nodes are enlarged, painless on palpation. Blood tests: erythrocytes - 3.0 × 1012 / l, hemoglobin - 95 g / l, color index - 0.95, leukocytes - 14.5 × 109 / l, blasts - 32% pal. - 1 %, segments - 39%, lymph. - 20%, mon. - 8 %, thrombus. - 90.0 × 109 / l, erythrocyte sedimentation rate - 24 mm / h. Cytochemical study: reaction to glycogen is positive. After 3 days there were headaches, dizziness, nausea, vomiting, paresis of the lower extremities. Your preliminary diagnosis:
A. acute myeloid leukemia
B. chronic lymphocytic leukemia
C. chronic myelogenous leukemia
D. aplastic anemia
E. acute lymphoblastic leukemia

14. A 46-year-old woman complains of nosebleeds, bleeding from the gums and uterus, general weakness and shortness of breath during exertion during a doctor's appointment. Objectively: the skin is pale, there are bruises on the anterior thighs and abdomen, the nose is tamponed. On auscultation of the heart: systolic murmur at the apex of the heart, heart rate of 98 beats per minute, blood pressure of 100/70 mm Hg. The liver and spleen are not enlarged. A blood test reveals: erythrocytes - 2.8 ×1012/l, hemoglobin - 76 g/l, color index - 0.81, leukocytes - 9.2 ×109/l, platelets - 32 ×109/l, erythrocyte sedimentation rate - 22 mm/h. Duration of bleeding - 18 min. Your preliminary diagnosis:
A. idiopathic autoimmune thrombocytopenic purpura
B. hemorrhagic vasculitis
C. autoimmune hemolytic anemia
D. chronic lymphocytic leukemia
E. chronic myelogenous leukemia
15. A 44-year-old man visits a doctor. Upon examination, he notices a small hemorrhagic rash on the skin of his thighs that does not disappear when pressed, and pain in the knees.
ankle, wrist joints. General urine analysis revealed microhematuria. Coagulogram: paracoagulation tests are positive. Your preliminary diagnosis:
A. chronic myelogenous leukemia
B. hemorrhagic vasculitis
C. chronic lymphocytic leukemia
D. aplastic anemia
E. autoimmune hemolytic anemia
16. An 18-year-old man has a high fever, hemorrhagic and anemic syndrome. A blood test revealed 38% blasts. Your preliminary diagnosis:
A. aplastic anemia
B. chronic lymphocytic leukemia
C. acute leukemia
D. chronic myelogenous leukemia
E. folate deficiency anemia
17. A 42-year-old woman suffering from menorrhagia had a blood test that revealed a decrease in hemoglobin to 90 g/l, hypochromia of erythrocytes, low serum iron levels,
brittle nails, hair loss, dry skin are noted. Your preliminary diagnosis:
A. hemolytic anemia
B. aplastic anemia
C. B-12 deficiency anemia
D. iron deficiency anemia
E. folate deficiency anemia
18. A 65-year-old man, upon examination, noted: enlarged lymph nodes. Blood analysis showed leukocytosis with absolute lymphocytosis, Botkin-Gumprecht shadows. Your preliminary diagnosis:
A. acute leukemia
B. chronic myelogenous leukemia
C. aplastic anemia
D. folate deficiency anemia
E. chronic lymphocytic leukemia
19. A 37-year-old woman visits a doctor and complains of general weakness, dizziness, blurred vision, paresthesia in the feet, and unsteadiness of gait. She notes a 10 kg weight loss over the past 3 months. Examination reveals slight yellowness of the skin. The liver protrudes 1.5 cm from under the

costal margin. The spleen is not palpable. Blood tests reveal: hemoglobin - 70 g/l; color index - 1.4; platelets -110×109/l; leukocytes - 2.5×109/l; erythrocyte sedimentation rate - 12 mm/h. Your preliminary diagnosis:
A. hemolytic anemia
B. B12-deficiency anemia
C. aplastic anemia
D. folate deficiency anemia
E. iron deficiency anemia
20. Castle's intrinsic factor is formed in:
A. duodenum
In blood serum
S. fundus region of the stomach
D. wall of the small intestine
E. cardiac region of the stomach

2. Defense of the educational medical history.
The form for filling out and defending is attached to the library collection of the department and the academy.

Border control №2:

1. Task to demonstrate practical skills.
1) Questioning of patients with diseases of the hematopoietic system.
2) General examination of patients with diseases of the hematopoietic system.
3) Methodology and technique of palpation of the spleen
4) Methodology and technique of performing percussion of the spleen.
5) Questioning patients with anemic syndrome.
6) General examination of patients with hemorrhagic syndrome.
7) Questioning patients with thrombocytopenic syndrome.
8) General examination of patients with thrombocytopenic syndrome
9) Laboratory research methods in patients with hemorrhagic syndrome.
10) Instrumental research methods in patients with thrombocytopenic syndrome

OPTION 1

1. A 45-year-old woman consulted a doctor complaining of general weakness, rapid fatigue, shortness of breath during physical exertion, and frequent dizziness. Examination revealed pale skin, brittle nails, and dry hair. A general blood test showed hemoglobin – 85 g/l; red blood cells – 3.2×1012/l, color index – 0.7. Your preliminary diagnosis:
A. hyperchromic B-12 deficiency anemia
B. hyperchromic folate deficiency anemia
S. myeloplastic syndrome
D. hypochromic iron deficiency anemia
E. sidoropenic syndrome
2. A 62-year-old man, at a therapist's appointment, complains of constant fatigue, dizziness, loss of

appetite, dry mouth. On examination: pale skin with a slight yellowness, a varnished tongue. A general blood test shows: hemoglobin 70 g / l, erythrocytes - 2.5 × 1012 / l, color index - 1.2; macrocytosis, hyperchromia. In the biochemical analysis: increased bilirubin levels. Your preliminary diagnosis:
A. autoimmune hemolytic anemia
B. megaloblastic anemia, vitamin B-12 deficiency
C. microcytic anemia
D. aplastic anemia
E. iron deficiency anemia
3. A 30-year-old woman consulted a doctor complaining of shortness of breath when walking, general weakness,
decreased performance. From the anamnesis: recently suffered a viral infection. On examination: pale skin, tachycardia up to 110 beats per minute. In the general blood test: hemoglobin 95 g/l, erythrocytes - 2.9×1012/l, reticulocytes - 0.5. Bone marrow analysis: decreased number of erythroid cells. Your preliminary diagnosis:
A. hemolytic anemia
B. iron deficiency anemia
C. aplastic anemia
D. B-12 deficiency anemia
E. microcytic anemia
4. A 40-year-old woman consulted a doctor complaining of general weakness, dizziness, shortness of breath during physical exertion, and brittle nails. Her medical history shows that she has heavy menstrual periods lasting more than 7 days. Blood test results: hemoglobin - 85 g/l; erythrocytes - 3.2×1012/l; color index - 0.7; serum iron - 5 μmol/l. Specify the causes of anemia in this case:
A. impaired absorption of iron in the stomach
B. impaired absorption of ferritin in the stomach
C. Vitamin B-12 deficiency anemia
D. chronic blood loss due to heavy menstruation
E. folate deficiency anemia
5. A 46-year-old woman consulted a doctor complaining of general weakness, dizziness, shortness of breath during physical exertion, hair loss, and brittle nails. Her medical history shows that she has heavy menstrual periods lasting more than 8 days. Blood test results: hemoglobin - 83 g/L; erythrocytes - 3.1×1012/L; color index - 0.6; serum iron - 5 μmol/L. Your preliminary diagnosis:
A. Vitamin B-12 deficiency anemia
B. hemolytic anemia
C. aplastic anemia
D. folate deficiency anemia
E. iron deficiency anemia
6. A 55-year-old man came to see a general practitioner complaining of constant fatigue, shortness of breath and
weight loss. Examination reveals: pale skin and mucous membranes. History: chronic gastritis with low acidity. General blood test:
hemoglobin-88 g/l; erythrocytes-3.4×1012/l; color index-0.6; serum iron-
5 μmol/l; ferritin - 7 ng/ml. Name an additional informative research method:
A. Ultrasound of the abdominal cavity
B. fibrogastroscopy
C. puncture of lymph nodes

D. fecal occult blood test
E. determination of serum iron in the blood
7. A 50-year-old man consulted a therapist complaining of constant fatigue, shortness of breath during physical exertion, and weight loss. Examination revealed pale skin and mucous membranes. History: chronic gastritis with low acidity. A complete blood count revealed hemoglobin - 84 g/l; red blood cells - 3.2×1012/l; color index -0.5; serum
iron - 4 μmol/l; ferritin - 6 ng/ml. Your preliminary diagnosis:
A. folate deficiency anemia
B. aplastic anemia
C. Vitamin B-12 deficiency anemia
D. autoimmune hemolytic anemia
E. iron deficiency anemia caused by impaired iron absorption
8. A 60-year-old man consulted a therapist complaining of constant fatigue, drowsiness, weight loss, dry skin, and loss of appetite. Examination revealed pale skin and mucous membranes and mild tachycardia. History: chronic gastritis with low acidity. A complete blood count showed hemoglobin - 88 g/L; red blood cells - 3.2×1012/L; color index - 0.65; serum iron - 4 μmol/L; ferritin - 6 ng/ml. Specify the causes of anemia in this case:
A. aplastic anemia
B. iron deficiency anemia
C. folate deficiency anemia
D. B-12 deficiency anemia
E. autoimmune hemolytic anemia
9. A 35-year-old man, at a doctor's appointment, complains of a painful purple rash on his shins, pain in the knee and ankle joints, and blood in the urine. From the anamnesis: the disease began after a sore throat. On examination: purple rash
symmetrically located in the lower limbs, joints are swollen, painful when moving. Urine analysis: proteinuria, microhematuria. Your preliminary diagnosis:
A. aplastic anemia
B. acute leukemia
C. hemorrhagic vasculitis
D. chronic myelogenous leukemia
E. chronic lymphocytic leukemia
10. A 27-year-old woman was admitted to hospital with complaints of blood in the urine, pain in the lumbar region and a rash on the legs. From the anamnesis: the disease began acutely a week after suffering bronchitis. During examination, it is noted: a pronounced hemorrhagic rash on the skin shins. Urinalysis: proteinuria 2 g/l, hematuria. Creatinine in the blood is elevated. Specify a possible complication in this case:
A. acute heart failure
B. aplastic anemia
C. B-12 deficiency anemia
D. acute renal failure
E. autoimmune hemolytic anemia
11. A 40-year-old man consulted a doctor with complaints of severe swelling in the lower extremities, frequent purple rash, general weakness, and decreased daily diuresis. History: chronic tonsillitis. Blood tests: total blood protein decreased - 58 g/l; hypoalbuminemia, proteinuria - 4 g/l; hematuria. Your preliminary diagnosis:
A. aplastic anemia

B. chronic myelogenous leukemia
C. chronic lymphocytic leukemia
D. autoimmune hemolytic anemia
E. hemorrhagic vasculitis
12. A 35-year-old man was admitted to hospital with complaints of general weakness, shortness of breath, and fever. He had a viral infection 2 weeks before. Examination revealed pale skin, yellow sclera, and moderate tachycardia. Blood test results: hemoglobin 90 g/l; reticulocytes 20%; indirect bilirubin 70 μmol/l. Coombs test is positive. Your preliminary diagnosis:
A. aplastic anemia
B. autoimmune hemolytic anemia
C. chronic lymphocytic leukemia
D. chronic myelogenous leukemia
E. B-12 deficiency anemia
13. A 28-year-old man was admitted to hospital with complaints of sudden weakness, shortness of breath, palpitations. He took an antibiotic 2 weeks before. During the examination, the following was noted:
Yellowness of the sclera and skin, tachycardia. Blood test: hemoglobin - 60 g/l; reticulocytes - 18%; total bilirubin - 55 μmol/l; indirect - 50 μmol/l; Coombs test - positive. Name the cause of this condition:
A. aplastic anemia
B. B-12 deficiency anemia
C. drug-induced autoimmune hemolytic anemia
D. chronic lymphocytic leukemia
E. chronic myelogenous leukemia
14. A 35-year-old man came to see a therapist complaining of severe weakness, dizziness, shortness of breath during physical exertion, and the appearance of bruises on the body for no apparent reason. On examination: the skin is pale, there are multiple petechiae and ecchymoses on the skin. In the general blood test: hemoglobin - 70 g / l; leukocytes - 2.0 × 109 / l, platelets - 20 × 109 / l, reticulocytes - 0.5%. Your preliminary diagnosis:
A. idiopathic thrombocytopenic purpura
B. autoimmune hemolytic anemia
C. B-12 deficiency anemia
D. aplastic anemia
E. chronic myelogenous leukemia
15. A 25-year-old woman consulted a doctor complaining of unexplained bruising, frequent nosebleeds, and increased bleeding from the gums. History: a viral infection 2 weeks ago. Examination revealed multiple petechiae and ecchymoses on the skin of the trunk and extremities. Blood pressure: 110/70 mm Hg, heart rate: 76 beats per minute. Blood test: platelets: 20×109/l, hemoglobin: 130 g/l, leukocytes×109/l. Your preliminary diagnosis:
A. aplastic anemia
B. autoimmune hemolytic anemia
C. B-12 deficiency anemia
D. chronic myelogenous leukemia
E. idiopathic thrombocytopenic purpura
16. Specify a characteristic laboratory sign for B12 deficiency anemia:
A. thrombocytosis
B. leukocytosis

C. increase in erythrocyte sedimentation rate
D. lymphocytosis
E. high color index
17. The substrate of acute leukemia is:
A. leukemic maturing cells
B. mature leukemia cells
C. leukemic blast cells
D. immature leukemic cells
E. plasma cells
18. Acute leukemia is a tumor originating from:
A. hematopoietic tissue of lymph nodes
B. reticuloendothelial tissue of the liver
S. reticuloendothelial tissue of the spleen
D. liver endothelial tissue
E. bone marrow
19. Indicate the necessary factor for the absorption of vitamin B-12:
A. hydrochloric acid
V. gastrin
C. pepsin
D. gastromucoprotein
E. folic acid
20. Name a common cause of anemia in acute leukemia:
A. disturbance of leukocyte formation in bone marrow
B. disturbance of red blood cell formation in bone marrow
C. disturbance of erythropoietin production
D. iron malabsorption
E. disorder of platelet formation in bone marrow

OPTION 2

1. A 44-year-old man's general blood test revealed the following changes: hemoglobin - 85 g/l, erythrocytes - 2.9 x 1012 \l, leukocytes - 3.7 x 109 \l, erythrocyte sedimentation rate - 52 mm/hour, platelets - 95 x 109 \l. The doctor referred him for further examination. Name an informative research method to clarify the diagnosis:
A. gastric endoscopy
B. sternal puncture
C. puncture of lymph nodes
D. fecal occult blood test
E. determination of serum iron in the blood
2. A 47-year-old man was admitted to hospital with complaints of spontaneous hemorrhages on the skin, nosebleeds, and severe weakness. There is no history of chronic diseases. On examination: multiple ecchymoses on the lower extremities, small hemorrhages on the mucous membranes. Blood test: platelets - 11×109/l, hemoglobin - 118 g/l, erythrocyte sedimentation rate -16 mm/h; leukocytes - 4×109/l. Specify an informative diagnostic method:
A. endoscopic examination of the stomach
B. puncture of lymph nodes
C. bone marrow examination

D. fecal occult blood test
E. determination of ferritin in the blood
3. A 28-year-old man, at a doctor's appointment, complains of decreased appetite, unsteadiness of gait,
general weakness. On examination: pale skin and mucous membranes. Blood analysis revealed: hemoglobin 70 g/l, macrocytosis, Joly bodies; erythrocytes - 1.9 ×109/l109/l, color index - 1.3. Bone marrow revealed: megaloblastic type of hematopoiesis. Your preliminary diagnosis:
A. iron deficiency anemia
B. acute leukemia
C. chronic lymphocytic leukemia
D. B-12 deficiency anemia
E. hemolytic anemia
4. A 42-year-old woman consulted a doctor complaining of increased fatigue, dizziness, hair loss, and brittle nails. History: uterine fibroids and menorrhagia. Blood tests revealed: hemoglobin - 80 g/l, hypochromia, microerythrocytosis. Your preliminary diagnosis:
A. B-12 deficiency anemia
B. sickle cell anemia
C. aplastic anemia
D. hereditary spherocytosis
E. iron deficiency anemia
5. A 42-year-old woman complains of fever, frequent bleeding from the gums and nose, enlarged lymph nodes, and general weakness during a doctor's appointment. Examination reveals pale skin and mucous membranes, subcutaneous hemorrhages. Blood tests reveal signs of anemia, thrombocytopenia, and blastosis in the peripheral blood. Specify the pathological condition that is characterized by this laboratory picture:
A. chronic myelogenous leukemia
B. acute leukemia
C. iron deficiency anemia
D. B-12 deficiency anemia
E. aplastic anemia
6. An 18-year-old female patient visits a doctor, complaining of enlarged cervical lymph nodes and severe weakness. A blood test shows pancytopenia and high blastosis in the bone marrow (78%), the reaction to myeloperoxidase is "negative". Your preliminary diagnosis:
A. chronic myelogenous leukemia
B. B-12 deficiency anemia
C. acute lymphocytic leukemia
D. aplastic anemia
E. hemolytic anemia
7. A 25-year-old man consulted a doctor complaining of severe weakness, dizziness, shortness of breath during physical exertion, and the appearance of bruises on the body for no apparent reason. The blood test shows: erythrocytes - 1.8 ×1012/l, hemoglobin - 36 g/l, color index - 0.9, leukocytes - 1.6 ×109/l, platelets - 5.0 ×109/l. Your preliminary diagnosis:
A. hemolytic anemia
B. B-12 deficiency anemia
C. iron deficiency anemia
D. aplastic anemia
E. thrombocytopenic purpura

8. A 65-year-old man came to the doctor complaining of general weakness, increased fatigue, sweating, and a 5 kg weight loss over the past 3 months. Upon examination: pale skin, enlarged cervical and axillary lymph nodes (up to 2 cm), moderate splenomegaly. In the general blood test: leukocytes - 55×10⁹/l, lymphocytes - 80%, hemoglobin - 100 g/l, platelets - 150×10⁹/l. Your preliminary diagnosis:
A. chronic myelogenous leukemia
B. aplastic anemia
C. hemolytic anemia
D. hereditary spherocytosis
E. chronic lymphocytic leukemia
9. A 62-year-old woman consulted a doctor complaining of a feeling of heaviness in the left hypochondrium and periodic nosebleeds. Examination revealed severe splenomegaly. Laboratory data: leukocytes – 95×10⁹/l, lymphocytes – 92%, hemoglobin – 88 g/l, platelets – 90×10⁹/l. Biochemical blood test: LDH – increased, bilirubin – normal.
Name the causes of splenomegaly and thrombocytopenia:
A. chronic lymphocytic leukemia
B. chronic myelogenous leukemia
C. hereditary spherocytosis
D. aplastic anemia
E. autoimmune hemolytic anemia
10. A 68-year-old woman was admitted to hospital with complaints of increased fatigue, night sweats, abdominal pain and weight loss. It is known from the anamnesis that chronic lymphocytic leukemia was diagnosed 3 years ago, chemotherapy was administered, the patient is in remission. Examination revealed enlarged axillary and cervical lymph nodes and splenomegaly. Laboratory data: leukocytes - 150×10⁹/l, lymphocytes - 85%, hemoglobin - 95 g/l, platelets - 120×10⁹/l, LDH - increased. Specify the signs of a relapse of the disease in this case:
A. enlarged liver, increased fatigue
B. enlarged lymph nodes, splenomegaly and increased LDH levels
C. night sweats, decreased hemoglobin levels
D. abdominal pain, decreased platelet levels
E. weight loss
11. A 55-year-old man visits a doctor and complains of frequent respiratory infections, enlarged cervical lymph nodes, and a 4 kg weight loss over the past 2 months. Laboratory data: leukocytes - 60×10⁹/l, lymphocytes - 85%, hemoglobin - 130 g/l, platelets - 150×10⁹/l. Further examination revealed antibodies to the herpes virus, as well as enlarged lymph nodes in the chest. Your preliminary diagnosis:
A. chronic myelogenous leukemia
B. hereditary spherocytosis
C. chronic lymphocytic leukemia with infectious complications
D. aplastic anemia
E. autoimmune hemolytic anemia
12. A 63-year-old woman was admitted to hospital complaining of general weakness and enlarged lymph nodes. Laboratory blood tests show: leukocytes - 130×10⁹/l, lymphocytes - 90%, hemoglobin - 95 g/l, platelets - 110×10⁹/l, LDH - a significant increase is noted. Your preliminary diagnosis:
A. chronic myelogenous leukemia
B. aplastic anemia
C. acute leukemia

D. chronic lymphocytic leukemia
E. autoimmune hemolytic anemia
13. Marked splenomegaly is a characteristic sign of:
A. chronic lymphocytic leukemia
B. B-12 deficiency anemia
C. acute leukemia
D. autoimmune hemolytic anemia
E. chronic myelogenous leukemia
14. A 70-year-old woman diagnosed with chronic lymphocytic leukemia is undergoing observational treatment because she has no obvious symptoms of the disease. During a routine examination, enlarged lymph nodes in the neck and mild splenomegaly are noted. In the analyses blood shows: leukocytes - 50×10⁹/l, lymphocytes - 88%, platelets - 160×10⁹/l, hemoglobin - 130 g/l. Your preliminary diagnosis:
A. asymptomatic chronic myelogenous leukemia
B. asymptomatic chronic lymphocytic leukemia
C. aplastic anemia
D. hereditary spherocytosis
E. autoimmune hemolytic anemia
15. A 60-year-old man undergoes examination before a planned operation. Blood tests accidentally reveal: leukocytes - 40×10⁹/l, lymphocytes - 75%, hemoglobin - 125 g/l, platelets - 170×10⁹/l. The patient has no complaints. Your preliminary diagnosis:
A. asymptomatic chronic myelogenous leukemia
B. aplastic anemia
C. hereditary spherocytosis
D. autoimmune hemolytic anemia
E. asymptomatic chronic lymphocytic leukemia
16. The normal number of platelets in the blood is:
A. 50.0 – 180.0 x 109 \l
H. 250.0 – 400.0 x 109 \l
P. 180 – 320 x 109 \l
D. 350.0 – 450.0 x 109 \l
E. >150.0 – 200.0 x 109 \l
17. An increase in the number of platelets in the blood is called:
A. leukocytosis
B. poikilocytosis
C. anisocytosis
D. erythrocytosis
E. thrombocytosis
18. "Thrombocytopenia" means:
A. decrease in platelet count
B. hypofunction of platelets
C. increase in the number of platelets in the blood
D. platelet hyperfunction
E. decrease in the number of red blood cells
19. An increase in the number of leukocytes in the blood is called:
A. erythrocytosis
B. lymphocytosis

C. thrombocytosis
D. leukocytosis
E. anisocytosis
20. A decrease in the number of leukocytes in the blood is called:
A. erythropenia
B. lymphopenia
C. lymphocytosis
D. leukocytosis
E. leukopenia

OPTION 3

1. A 56-year-old man with chronic lymphocytic leukemia complains of frequent upper respiratory tract infections, headache, general weakness and weight loss. Blood tests: leukocytes - 95×10⁹/l, lymphocytes - 90%, hemoglobin - 110 g/l, platelets - 150×10⁹/l, LDH – elevated. Specify the complication that may develop in this patient:
A. acute renal failure
B. increased risk of infections due to immunodeficiency
C. autoimmune hemolytic anemia
D. vitamin B-12 or folate deficiency
E. aplastic anemia
2. A 55-year-old man complains of rapid fatigue, sweating, and pain in the left hypochondrium during a doctor's appointment. An examination revealed an enlarged spleen, an increased level of leukocytes in the blood to 120×10^9/l, a shift in the formula to the left, and the presence of myeloblasts. Your preliminary diagnosis:
A. chronic lymphocytic leukemia
B. aplastic anemia
C. chronic myelogenous leukemia
D. hereditary spherocytosis
E. autoimmune hemolytic anemia
3. A 50-year-old man, at a visit to a therapist, presents complaints of general weakness, rapid fatigue, sweating, and weight loss over the past few months.
examination revealed enlarged spleen and liver. Complete blood count: leukocytosis (150,000/mcl), basophilia, eosinophilia, myelocytes in the blood. Your preliminary diagnosis:
A. chronic lymphocytic leukemia
B. aplastic anemia
C. hereditary spherocytosis
D. chronic myelogenous leukemia
E. autoimmune hemolytic anemia
4. A 48-year-old woman, at a doctor's appointment, complains of a feeling of heaviness in the abdomen, rapid
fatigue and night sweats. Complete blood count: leukocytes 200,000/µl, of which myelocytes and metamyelocytes predominate, basophilia, eosinophilia. On ultrasound of the abdominal cavity - the spleen and liver are enlarged. Name the laboratory diagnostic method to confirm the diagnosis in this case:
A. Determination of C-reactive protein
B. Determination of leukocytes, erythrocyte sedimentation rate

C. PCR (polymerase chain reaction)
D. Enzyme-linked immunosorbent assay (ELISA)
E. molecular genetic testing to identify the Philadelphia chromosome, testing for the presence of the BCR-ABL gene
5. A 55-year-old man presents to a doctor with complaints of increased fatigue, bone pain, and frequent headaches. Upon examination: enlarged spleen. Blood tests show leukocytosis 120,000/mcl, blood smear shows myelocytes and metamyelocytes, and there are also signs of basophilia. Cytogenetic testing revealed the Philadelphia chromosome. Your preliminary diagnosis:
A. chronic lymphocytic leukemia
B. chronic myelogenous leukemia
C. aplastic anemia
D. hereditary spherocytosis
E. autoimmune hemolytic anemia
6. A 47-year-old patient, who had not previously suffered from blood diseases, consulted a doctor with complaints of general weakness, fever up to 37-38°C, and sweating at night.
Blood analysis shows: leukocytosis 100,000/mcl, presence of myelocytes and metamyelocytes, basophilia. Abdominal ultrasound - enlarged spleen. Your preliminary diagnosis:
A. chronic lymphocytic leukemia
B. aplastic anemia
C. chronic myelogenous leukemia
D. autoimmune hemolytic anemia
E. hereditary spherocytosis
7. A 45-year-old patient at a doctor's appointment complains of general weakness, fever, frequent bleeding from the gums and nose, enlarged lymph nodes. Previously healthy. On examination: pale skin, presence of subcutaneous hemorrhages. Complete blood count shows: a sharp decrease in the level of red blood cells, platelets and white blood cells. Abnormal blast cells were detected in the blood smear. Your preliminary diagnosis:
A. chronic myelogenous leukemia
B. chronic lymphocytic leukemia
C. autoimmune hemolytic anemia
D. acute leukemia
E. hereditary spherocytosis
8. A 45-year-old woman came to the clinic complaining of rapid fatigue, general weakness, loss of appetite, dizziness, and a tingling sensation in her arms and legs. She also noted that her vision had worsened and she was having trouble concentrating. Blood tests revealed low levels of vitamin B12. Your preliminary diagnosis:
A. iron deficiency anemia
B. aplastic anemia
C. autoimmune hemolytic anemia
D. hereditary spherocytosis
E. Vitamin B-12 deficiency anemia
9. A 60-year-old man consulted a doctor complaining of rapid fatigue, dizziness, loss of appetite, and a tingling sensation in the upper and lower extremities. Examination revealed pale skin and mucous membranes. History: suffers from chronic
alcoholism. Blood tests show: anemia with hyperchromic red blood cells and low levels of vitamin B12. Your preliminary diagnosis:
A. autoimmune hemolytic anemia

B. Vitamin B-12 deficiency due to poor absorption in the intestines
C. iron deficiency anemia
D. aplastic anemia
E. hereditary spherocytosis
10. A 28-year-old woman, a vegan, came to the doctor with complaints of rapid fatigue, dizziness, pain in the lower extremities, especially at night. On examination: pale skin. Blood tests revealed: megaloblastic erythrocytes, low levels of vitamin B12 and increased homocysteine. Your preliminary diagnosis:
A. aplastic anemia
B. iron deficiency anemia
C. deficiency anemia due to vitamin B12 deficiency
D. autoimmune hemolytic anemia
E. hereditary spherocytosis
11. A 55-year-old man, at a therapist's appointment, complains of general weakness, impaired coordination, and numbness in the lower and upper extremities. History: gastric ulcer, has been taking proton pump inhibitors for a long time. Blood tests reveal megaloblastic anemia and vitamin B12 deficiency. Specify the cause of vitamin B12 deficiency:
A. Vitamin B12 deficiency can be caused by psycho-emotional stress.
B. Vitamin B12 deficiency can be caused by chronic inflammation.
C. Vitamin B12 deficiency can be caused by folate deficiency.
D. Vitamin B12 deficiency can be caused by intestinal dysbacteriosis
E. Vitamin B12 deficiency may be caused by long-term use of proton pump inhibitors.
12. A 50-year-old woman, at a reception with a therapist, complains of a constant feeling of fatigue, sleep disorders and depressive mood. From the anamnesis: the patient has no history of gastrointestinal diseases, she does not adhere to a strict diet. Blood tests revealed: anemia with macrocytic red blood cells and low levels of vitamin B12. Indicate the cause of vitamin B12 deficiency:
A. intestinal absorption disorder due to vitamin D deficiency
B. impaired absorption in the intestine due to decreased function of the gastric mucosa
C. intestinal absorption disorder due to long-term use of drugs
D. intestinal absorption disorder due to iron deficiency
E. intestinal malabsorption due to folate deficiency
13. A 34-year-old woman, 14 weeks pregnant, consulted a doctor complaining of general fatigue, dizziness, and frequent headaches. Examination revealed pale skin, tachycardia of 98 beats per minute, decreased hemoglobin level to 90 g/l, normal red blood cell volume, decreased serum folate level. Your preliminary diagnosis:
A. iron deficiency anemia
B. aplastic anemia
C. folate deficiency anemia
D. autoimmune hemolytic anemia
E. hereditary spherocytosis
14. A 25-year-old woman complains of general fatigue and headache at a doctor's appointment. Blood tests show: hemoglobin level 95 g/l, decreased ferritin level, normal vitamin B-12 level, decreased folate level. Your preliminary diagnosis:
A. iron deficiency anemia
B. aplastic anemia
C. autoimmune hemolytic anemia

D. hereditary spherocytosis
E. folate deficiency anemia
15. A 68-year-old patient complains of general weakness, dizziness, and loss of appetite at a doctor's appointment. History: chronic gastritis and regular use of proton pump inhibitors. Blood tests show: hemoglobin level - 88 g/l, red blood cell volume is normal, folate level is reduced. Your preliminary diagnosis:
A. iron deficiency anemia
B. folate deficiency anemia
C. autoimmune hemolytic anemia
D. aplastic anemia
E. B-12 deficiency anemia
16.Name the causes of iron deficiency anemia in men:
A. malignant tumors
B. bleeding from the gastrointestinal tract
C. alcoholic hepatitis
D. hematuric form of glomerulonephritis
E. hemoptysis
17. Specify the type of bleeding in autoimmune thrombocytopenia:
A. hematoma
V. angiomatous
S. spotted-petechial
D. vasculitic-purpuric
E. mixed character
18. Name the common characteristic signs of thalassemia and iron deficiency anemia:
A. hypochromia of erythrocytes
B. hyperbilirubinemia
C. reticulocytosis and other signs of hemolysis
D. target shape and basophilic puncturation of erythrocytes
E. increase in the level of fatal hemoglobin
19. Iron is deposited mainly in the form of:
A. transferrin
V. protoporphyrin
C. ferritin
D. hema
E. hemoglobin
20. Excess iron in infectious-inflammatory anemia is formed in:
A. erythrocytes
In blood serum
C. bone tissue
D. liver
E. bone marrow macrophages

2. Defense and completion of the educational medical history.
The form for filling out and defending is attached to the library collection of the department and the academy.