

Federal State Budgetary Educational Institution of Higher Education

«North-Ossetia State Medical Academy»

of the Ministry of Healthcare of the Russian Federation

Department of Internal diseases №4

APPROVED BY

The protocol of the meeting of the Central
Coordinating Educational and Methodological
Council dated March 22, 2022 No. 4

VALUATION FUND

by discipline Hematology

*the main professional educational program of higher education - specialist's programs in
the specialty 31.05.01 General Medicine,
approved on March 30, 2022*

for students 5 course

by specialty 31.05.01 General Medicine

Reviewed and approved at the meeting of the department
dated March 3, 2022 (protocol No. 13)

Head of the Department ____ Professor Astakhova Z.T. ____

STRUCTURE OF THE VALUATION FUND

1. Title page
2. Structure of the VALUATION FUND
3. Review of VALUATION FUND
4. Passport of evaluation tools
5. A set of evaluation tools:
 - examination card on practical skills
 - benchmarks of test tasks,
 - exam tickets

Hematology Evaluation Fund Passport

№ п/п	Name of the controlled section (topic) of the discipline / module	Code of the formed competence (stage)		As a result of studying the discipline, students should:			Name of the evaluation tool
	2	3		4			5
				Know	Be able to	master	
Type of contr ol		Intermediate					
1.	hematology	GPC -8 GPC -9 PC-5 PC-6 PC-8 PC-9 PC-10 PC-11	General patterns of general pathological processes, basic physical, chemical, biological and physiological patterns, processes and phenomena in normal and pathological conditions, the specifics of health formation The main issues of pathological anatomy, normal and pathological physiology, clinical laboratory diagnostics The doctrine of the disease, etiology, pathogenesis of diseases of the blood system, organopathological, syndromic and nosological principles in the study of diseases, pathomorphosis of diseases. Basic pharmacotherapy from the standpoint of evidence-based medicine, possible complications during drug therapy and methods for their correction Clinical pharmacology in aspects of	Obtain subjective and objective information about the disease, identify risk factors for the development of pathology, the leading syndrome, general and specific symptoms of the disease, outline ways of secondary prevention of disease progression Conduct a differential diagnosis, make a clinical diagnosis and determine the algorithm of the necessary treatment Assess the data of special methods - myelogram, trepanobiopsy, molecular, cytogenetic, genetic analyses, immunophenotypin g, hemostasiogram Determine the severity of the patient's condition, the volume and sequence of necessary therapeutic measures To be able to independently recognize normal and pathological cells of peripheral blood and bone	Skills for staining and counting leukocyte formula and myelogram Skills of special examination of hematological patients Skills for morphological assessment of peripheral blood cells and bone marrow Various routes of drug administration Methods of special examination - the technique of performing sternal puncture, trepanobiopsy Approach to the diagnosis and treatment of possible complications of hematological patients Clinical thinking skills for differential diagnosis and	Samples of test tasks; Situational tasks Practical Skills Tickets	

			<p>hematology and related disciplines; the main characteristics of drugs and forms, their classification, pharmacodynamics and pharmacokinetics, indications and contraindications for prescription and use, for prevention and treatment.</p> <p>Fundamentals of dispensary observation of hematological patients, the system of rational provision of patients with expensive vital drugs</p> <p>Clinical syndromology, algorithms and innovative technologies of modern diagnostics and treatment of blood diseases, prevention of diseases of the blood system, as well as borderline conditions in hematological practice</p> <p>Organization of intensive care and resuscitation service for blood diseases</p>	<p>marrow in various diseases of the blood system during microscopic examination</p> <p>Conduct clinical follow-up, assess the quality of life of patients</p> <p>Determine the scope of additional examination methods and treatment tactics</p> <p>Necessary urgent care for emergency conditions, including blood diseases</p>	<p>clinical diagnosis</p> <p>Methods of emergency care and modern hematological resuscitation</p>	
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REVIEW

to the appraisal fund

in the discipline "Hematology"

for 5th year students of the Faculty of Medicine

by specialty 31.05.01 General Medicine (specialty)

The fund of evaluation funds was compiled at the Department of Internal Diseases No. 4 on the basis of the work program of the academic discipline in 2022. and comply with the requirements of the Federal State Educational Standard.

The fund of assessment funds includes tickets for evaluating practical skills, a bank of test tasks, situational tasks, tickets for credits (exam tickets).

Tickets for evaluating practical skills allow you to adequately assess the level of practical training of students in the discipline. The number of tickets is 30. The questions in the tickets are varied and reflect the entire scope of practical skills in hematology.

The bank of test tasks includes the following elements: test tasks, variants of test tasks, answer templates. All tasks correspond to the work program for hospital therapy and cover all its sections. The number of test tasks is 360. The complexity of the tasks varies. The number of tasks for each section of the discipline is sufficient for knowledge control and excludes repeated repetition of the same question in different versions. The bank contains answers to all test tasks and tasks.

The number of exam tickets is 39, which is enough for the exam and excludes the repeated use of the same ticket during the exam in the same academic group on the same day. Examination tickets are made on blanks of a single sample in a standard form, on paper of the same color and quality. The examination paper includes 3 questions. The wording of the questions coincides with the wording of the list of questions submitted for the exam. The content of the questions of one ticket refers to different sections of the program, allowing you to more fully cover the material of the academic discipline.

In addition to theoretical questions, 30 situational tasks are offered (analyzes, prescriptions, radiographs, electrocardiograms, etc.). Situational tasks (and others) included in the examination ticket make it possible to objectively assess the level of student's assimilation of theoretical material.

The complexity of the questions in the exam papers is evenly distributed.

There are no comments on the peer-reviewed fund of evaluation tools.

In general, the fund of evaluation funds for hospital therapy contributes to a qualitative assessment of the level of students' mastery of general cultural and professional competencies.

The peer-reviewed fund of assessment funds for hospital therapy can be recommended for use for intermediate certification at the Faculty of Medicine for 5th year students.

Reviewer:

Head Department of Hematology

O.D. Dzarasova

Methodological instructions for conducting a practical lesson
[http://sogma.ru/index.php?page\[common\]=content&id=135507](http://sogma.ru/index.php?page[common]=content&id=135507)
Methodological aids:
[http://sogma.ru/index.php?page\[common\]=content&id=135416](http://sogma.ru/index.php?page[common]=content&id=135416)
Questions for the test in hematology:
[http://sogma.ru/index.php?page\[common\]=content&id=135525](http://sogma.ru/index.php?page[common]=content&id=135525)
tasks in hematology:

Task 1.

A 25-year-old patient complains of fatigue, general weakness, episodes of dizziness, palpitations and shortness of breath during physical exertion.

From the anamnesis: dry skin and brittle nails have been noted for several years. Weakness, dizziness appeared a year ago during pregnancy. Menstruation from the age of 13, heavy first 3-4 days, 5-6 days, regular. She is currently breastfeeding her baby.

Objectively: a state of moderate severity. Paleness and dryness of the skin; nails with transverse striation, exfoliate. Hair is brittle. Rhythmic heart sounds, heart rate 90 per minute, blood pressure 110/70 mm Hg. Vesicular breathing in the lungs. The liver and spleen are not enlarged.

KLA: Hb 75 g/l, er. $3.3 \times 10^{12}/l$, formula without features, ESR 12 mm/h, MCV 70 vials, MCH 21.0 pg, anisocytosis, poikilocytosis

Questions for the task:

Highlight the main syndromes

Rate UAC

Formulate and substantiate the diagnosis

Survey plan

Treatment

Task 2.

A 28-year-old patient complains of nocturnal pain in the epigastric region, fatigue, dizziness, palpitations during exercise.

From the anamnesis: since the age of 17 he has been suffering from peptic ulcer of the 12 duodenal ulcer, for which he has been hospitalized twice. During the last 3 months there were episodes of deterioration of health, weakness, dizziness, dark color of the stool.

Objectively: the general condition is relatively satisfactory. The skin and mucous membranes are pale in color.

Vesicular breathing in the lungs. Rhythmic heart sounds, heart rate 80 per minute, blood pressure 110/70 mm Hg. Art. The abdomen is soft, moderately painful in the epigastric region. The liver and spleen are not enlarged.

KLA: Hb 73 g / l, er $3.2 \times 10^{12} / l$, CP 0.71, reticulocytes 1%, leukocytes $6.0 \times 10^9 / l$, the formula is unchanged, ESR 10 mm / h, serum iron $7.0 \mu\text{mol} / l$ (N 9-31.3 $\mu\text{mol}/l$), TIBC 115 $\mu\text{mol}/l$ (N 44.8-80.6 $\mu\text{mol}/l$).

Conclusion FGS: Ulcer of the bulb of the duodenum, 0.8 cm in diameter

Questions:

Highlight the main syndromes

Evaluate Lab Data

Formulate and substantiate the diagnosis

Treatment

Task 3.

Patient 70 years old, pensioner. Complaints of general weakness, fatigue, palpitations, shortness of breath during physical exertion, nausea, belching, heaviness in the epigastrium.

Signs of gastric dyspepsia for about 15 years. In the last six months, weakness, palpitations, shortness of breath on exertion, numbness of the lower extremities appeared. Didn't go to doctors.

Objectively: general condition of moderate severity. The skin is pale, slight yellowness of the skin and sclera of a lemon shade. The face is puffy. Height 160 cm, body weight 68 kg. Vesicular breathing in the lungs. The boundaries of the heart are expanded to the left by 1 cm, the tones are slightly muffled, heart rate is 90 per minute, blood pressure is 130/80 mm Hg. Art. The tongue is crimson, the papillae are flattened. The abdomen is soft and painless. The liver is +1 cm, the spleen is not enlarged.

UAC: er. $2.9 \times 10^{12}/l$, Hb 70 g/l, CP 1.3, leukocytes $4.0 \times 10^9/l$, erythrocytes 0, p. 4, p. 60, l. 30, m. 6, ESR 30 mm/h, reticulocytes 0.1%. A blood smear revealed hypersegmented neutrophils, Jolly bodies, and Cabot rings.

Questions:

Highlight the main syndromes

Rate UAC

Formulate and substantiate the diagnosis

Treatment, tactics of patient management

Task 4.

A 19-year-old patient complains of general weakness, dizziness, icteric staining of the skin and sclera.

A week ago, after hypothermia, the temperature rose to 38 ° C, there were catarrhal phenomena for 3 days, for which he took Biseptol. The temperature returned to normal, but icteric staining of the skin and sclera appeared, and increasing weakness. There have also been episodes of jaundice in the past.

Objectively: the patient's condition is of moderate severity. The skin is pale icteric in color with a lemon tint, the sclera are icteric. Pulse 90 per minute, rhythmic, BP 110/80 mm Hg. Art. Vesicular breathing in the lungs. The abdomen is soft and painless. The liver at the costal doctor, the spleen +3 cm. KLA: Hb 90 g/l, CP 0.9, blood reticulocytes 3%, white blood unchanged. Blood bilirubin 33 μ mol/l, indirect reaction.

Questions:

Highlight the main syndromes

Evaluate Lab Data

Formulate a preliminary diagnosis

What additional methods of examination are needed

Answers to situational problems in hematology

Answer to problem 1.

1

Syndromes:

a.

Sideropenic (manifestations: dry skin, changes in skin derivatives (hair, nails)

b.

Circulatory-hypoxic (general anemic). Manifestations: weakness, dizziness, palpitations, shortness of breath

c.

Anemic hematologic (decrease in hemoglobin, erythrocytopenia)

2.

KLA: moderate hypochromic microcytic anemia (CP 0.7; MCV 70 fl; MCH 21.0 pg)

3.

Preliminary diagnosis: iron deficiency anemia of moderate severity, mixed genesis. The patient is a young woman with risk factors for the development of IDA (gynecological history - hyperpolymenorrhea, pregnancy, lactation).

Hypochromic microcytic anemia, anisocytosis, poikilocytosis are characteristic of IDA

four.

To verify the diagnosis, a study of the level of serum iron and OZHSS is shown. Consultation with a gynecologist to exclude gynecological pathology

five.

Drug treatment: oral iron preparations at a daily dose of 200 mg in combination with ascorbic acid (sorbifer durules 200 mg 1 time per day) for 4 weeks, then 100 mg per day for up to 3 months to replenish the iron depot. If necessary (hyperpolymenorrhea), repeat 5-day courses prophylactically. Diet (meat products, fruits, rosehip broth).

The answer is in problem 2.

1.

Syndromes:

a.

Painful (ulcerative dyspepsia

b.

Circulatory-hypoxic

c.

Anemic (hematological)

2.

KLA: hypochromic anemia of moderate severity. Serum iron level is low, TI is elevated, which confirms the presence of iron deficiency anemia

3.

Peptic ulcer of the duodenum, duodenal ulcer, exacerbation. Complication: secondary posthemorrhagic iron deficiency anemia. The diagnosis of duodenal ulcer was confirmed by endoscopic examination and clinically. Anemic syndrome according to ***, of posthemorrhagic genesis, anamnesticly indicated possible episodes of gastrointestinal bleeding (melena) in the previous 3 months.

four.

Hospitalization in a hospital. Treatment of the underlying disease (PU), diet No. 1, three-component scheme (omeprazole, metronidazole, clarithromycin). To correct anemia, you can prescribe a parenteral iron preparation (ferrum lek IM).

Answer to problem 3

1.

Syndromes of gastric dyspepsia, general anemic (circulatory-hypoxic), hematological.

Hyperchromic anemia of moderate severity, hyporegenerative chronic gastritis type A.

1.

Idiopathic anemia of moderate severity

Shown: replacement therapy for gastritis with secretory insufficiency. Pathogenetic therapy of B12-deficiency anemia with cyanocobalamin 500 mcg 1 time per day s / c for 4 weeks, then 1 time per week for 2 months and 2 times per month for six months. Preventive courses of treatment 1-2 times a year for 5-6 injections. It is necessary to observe a hematologist, a therapist, oncological alertness due to an increased risk of developing stomach cancer.

Answer to problem 4

1.

Syndromes:

a.

General anemic (circulatory-hypoxic)

b.

hemolysis syndrome

c.

anemic hematological

2.

Mild normochromic hyperregenerative anemia, unconjugated hyperbilirubinemia

3.

Autoimmune hemolytic anemia

four.

To confirm the diagnosis, Coombs' test, Aggregate-hemagglutination test are necessary.