

**FEDERAL STATE BUDGET EDUCATIONAL
HIGHER EDUCATION INSTITUTION
"ROSTOV STATE MEDICAL UNIVERSITY"
MINISTRY OF HEALTH OF THE RUSSIAN FEDERATION**

FACULTY OF TREATMENT AND PREVENTION

Appraisal Fund
in the discipline "Pediatrics"

Specialty 05/31/01 General Medicine

1. Form of intermediate certification - test, test, exam

2. Type of intermediate certification:

Exam -interview, solving situational problems, passing practical skills. Grade The exam is awarded in accordance with the arithmetic average of marks for the interview, solving situational problems, and passing practical skills.

Test-interview, solving situational problems, passing practical skills. Score for The credit is awarded in accordance with the arithmetic average of marks for interviews, solving situational problems, and passing practical skills.

List of competencies formed by the discipline or in the formation of which the discipline participates

Code competencies	Content of competencies (results of mastering OOP)	Contents of competency elements, in the implementation of which he participates discipline
OPK-5	Capable And ready to analyze results own activities to prevent professional errors;	Capable And ready to analyze results own activities to prevent professional errors in providing medical care to children;
OPK-8	ready for the medical use of drugs and other substances and their combinations in solving professional problems;	ready for the medical use of drugs and other substances and their combinations in solving professional problems regarding the pathology of young and older children;
OPK-11	ready for use of medical devices, provided for orders providing medical help;	ready for use of medical devices, provided for orders providing medical assistance, including for children;
PK-6	capable To definition at patient's main pathological conditions, symptoms, disease syndromes, nosological forms in accordance with the International Statistical Classification of Diseases and Related Health Problems, X revision	capable of determining the patient's main pathological conditions, symptoms, disease syndromes, nosological forms in accordance with the International Statistical Classification of Diseases and Related Health Problems, X revision, regarding childhood diseases
PK-8	capable of determining tactics for managing patients with various nosological forms	capable of determining tactics for managing patients with various nosological forms in relation to childhood diseases
PK-9	ready to manage and treat patients With various nosological forms in outpatient and day hospital conditions	ready To maintaining And treatment patients With various nosological forms in outpatient and day hospital conditions for childhood diseases
PK-10	ready to provide medical care in case of sudden acute	ready to provide medical care in case of sudden acute

	diseases, exacerbation diseases, accompanied by a threat to the patient's life and not requiring emergency medical care	states, chronic	Not diseases that are not accompanied by a threat to the patient's life and do not require emergency medical care, including childhood diseases
PK-15	ready to train patients and their relatives hygienic health self-control skills physiological promoting strengthening disease prevention	main events character, main indicators, conservation and health,	ready to train patients and their relatives hygienic health self-control skills physiological promoting health promotion, disease prevention in pediatrics

1. Stages of developing competencies in the process of mastering educational programs

Competence	Disciplines	Semester
OPK-5	Bioethics	4
	Dermatovenereology	7
	Neurology, genetics, neurosurgery	8
	Otorhinolaryngology	7
	Ophthalmology	9
	Forensic Medicine	eleven
	Obstetrics, gynecology	7,8,9,10
	Radiation diagnostics	6
	Infectious diseases	10, 11
	Outpatient therapy	9,10,11,12
	general surgery	5.6
	Faculty Surgery	7.8
	Urology	7
	Hospital surgery	8,10,11
	Pediatric surgery	10
Childhood infections	9	
OPK - 8	Immunology	9
	Assistant obstetrician-gynecologist	8
	Assistant surgeon	8
	Physician Assistant	8, 10
	Anesthesiology, resuscitation	eleven
	Faculty Surgery	7.8
	Urology	eleven
	Hospital surgery	9, 10, 11
	Pediatric surgery	10
	Traumatology, orthopedics	10.11
	Fundamental medicine	7
	Childhood infections	9
	Clinical pharmacology	eleven
	Dermatovenereology	7
	Neurology, medical genetics, neurosurgery	8
Otorhinolaryngology	7	
Ophthalmology	9	

	Obstetrics, gynecology	7, 8, 9, 10
	Infectious diseases	10, 11
	Outpatient therapy	9, 10, 11, 12
	general surgery	5, 6
OPK-11	Topographical anatomy And operative surgery	5.6
	Nursing care for surgical patients	2
	Anesthesiology, resuscitation, intensive therapy	eleven
	Faculty Surgery	7, 8
	urology	9
	Hospital surgery	9, 10, 11
	Pediatric surgery	10
	Oncology, radiation therapy	12
	Traumatology, orthopedics	10, 11
	Childhood infections	9
	Medical rehabilitation	9
	Dermatovenereology	7
	Neurology, medical genetics, neurosurgery	8
	Psychiatry, medical psychology	9
	Otorhinolaryngology	7
	Ophthalmology	9
	Obstetrics, gynecology	7, 8, 9, 10
	Propaedeutics of internal diseases	6
	Infectious diseases	10, 11
	Outpatient therapy	9, 10, 11, 12
general surgery	5, 6	
PC - 6	Neurology, medical genetics, neurosurgery	8
	Psychiatry, medical psychology	9
	Otorhinolaryngology	7
	Ophthalmology	9
	Obstetrics and gynecology	7,8,9,10
	Pediatric infections	9
	Propaedeutics of internal diseases	5.6
	Occupational diseases	8
	Hospital therapy	9,10,11,12
	Infectious diseases	10,11,12
	Phthiology	eleven
	Polyclinic therapy	9,10,11,12
	General surgery	5.6
	Anesthesiology, resuscitation, intensive care	eleven
	Faculty Surgery	7,8,9,10
	Urology	10
	Hospital surgery	9,10,11
	Pediatric surgery	eleven
	Oncology, radiation therapy	10.11
	Traumatology, orthopedics	10.11
VPT, VSP	7	
		7
PC - 8	Neurology, medical genetics, neurosurgery	8
	Psychiatry, medical psychology	9

	<p>Otorhinolaryngology Ophthalmology Obstetrics and gynecology Pediatrics Propaedeutics of internal diseases Occupational diseases Hospital therapy Infectious diseases Phthisiology Polyclinic therapy General surgery Anesthesiology, resuscitation, intensive care Faculty Surgery Urology Hospital surgery Pediatric surgery Oncology, radiation therapy Traumatology, orthopedics VPT, VSP</p>	<p>7 9 7,8,9,10 7,8,9 5.6 8 9,10,11,12 10,11,12 eleven 9,10,11,12 5.6 eleven 7,8,9,10 10 9,10,11 eleven 10.11 10.11 7</p>
PC - 9	<p>Childhood infections Faculty therapy Hospital therapy Infectious diseases Polyclinic therapy Anesthesiology, resuscitation and intensive care Faculty Surgery Urology Hospital surgery Pediatric surgery Oncology, radiation therapy Palliative care</p>	<p>9 7.8 9,10,11,12 10,11,12 9,10,11,12 eleven 7,8,9,10 10 9,10,11 eleven 10.11 eleven</p>
PC - 10	<p>Neurology, medical genetics, neurosurgery Psychiatry, medical psychology Otorhinolaryngology Ophthalmology Obstetrics and gynecology Pediatric infections Propaedeutics of internal diseases Occupational diseases Hospital therapy Infectious diseases Phthisiology Polyclinic therapy General surgery Anesthesiology, resuscitation, intensive care Faculty Surgery Urology Hospital surgery Pediatric surgery Oncology, radiation therapy Traumatology, orthopedics VPT, VSP</p>	<p>8 9 7 9 7,8,9,10 9 5.6 8 9,10,11,12 10,11,12 eleven 9,10,11,12 5.6 eleven 7,8,9,10 10 9,10,11 eleven 10.11 10.11 7</p>

		7
PC - 15	Medical rehabilitation	9
	Dermatovenerology	12
	Neurology, medical genetics, neurosurgery	8
	Psychiatry, medical psychology	9
	Otorhinolaryngology	7
	Ophthalmology	9
	Obstetrics and gynecology	7,8,9,10
	Pediatrics	7,8,9
	Propaedeutics of internal diseases	5.6
	Faculty therapy	7.8
	Occupational diseases	8
	Hospital therapy	9,10,11,12
	Endocrinology	12
	Infectious diseases	10,11,12
	Polyclinic therapy	9,10,11,12
	General surgery	5.6
	Faculty Surgery	7.8
	Urology	10
	Hospital surgery	9,10,11
	Pediatric surgery	eleven
	Oncology, radiation	10.11
	therapy Traumatology,	10.11
	orthopedics Palliative care	9, 11

2. Stages of developing competencies in process of mastering the discipline

Sections disciplines	Codes of formed competencies							
	OPK 5	OPK 8	OPK 11	PC 6	PC 8	PC 9	PC 10	PC15
Semester 7								
Section 1	+				+	+	+	+
Section 2	+			+				+
Section 3	+				+			+
Section 4	+	+	+	+	+	+	+	+
Semester 8								
Section 5	+	+	+	+	+	+	+	+
Section 6	+	+	+	+	+	+	+	+
Semester 9								
Section 7	+	+	+	+	+	+	+	+
Section 8	+	+	+	+	+	+	+	+

3. Current control

7th semester

Interview

List of questions

1. Organization of the work of a children's clinic.
2. The main sections of the work of a local pediatrician.
3. Continuity in the work of the antenatal clinic, maternity hospital and children's clinic.
4. Monitoring healthy children in a children's clinic. Scope and content of preventive examinations of children of various ages.
5. Principles of medical examination of children, groups of clinical examination.

6. Physical development of children, methods of its assessment.
7. The concept of physical development indices.
8. Anatomical and physiological features and semiotics of diseases of the skin, subcutaneous tissue, and lymphatic system.
9. Anatomical and physiological features and semiotics of damage to the nervous system in children.
10. Methodology for assessing neuropsychic development and studying the state of the nervous system in children.
11. Anatomical and physiological features and semiotics of respiratory damage in children.
12. Anatomical and physiological features and semiotics of damage to the cardiovascular system
13. Anatomical and physiological features and semiotics of gastrointestinal tract lesions in children.
14. Anatomical and physiological features and semiotics of damage to the urinary organs
15. Anatomical and physiological features and semiotics of damage to the musculoskeletal system in children.
16. Natural feeding, its advantages, difficulties and contraindications for mother and child.
17. Methods of natural feeding of children in the first year of life.
18. Basic principles of nutrition for a nursing mother.
19. Hypogalactia: definition, classification, causes of hypogalactia, methods of treatment and prevention.
20. Classification of formulas used for feeding.
21. Methods of mixed and artificial feeding.
22. Nutrition for healthy children over one year old.
23. Nutrition of children with underlying conditions.
24. Primary toilet of a newborn. Features of clinical examination of a newborn.
25. Borderline conditions, their features in premature infants.
26. Hemolytic disease of newborns: etiology, pathogenesis, clinical picture, diagnosis, treatment and prevention.

Test control.

1. Anatomical features of the brain of a newborn baby
 - a) few small grooves
 - b) the frontal lobe is relatively large c) the meninges are thin
 - d) the cerebellum is poorly developed
 - e) the lateral ventricles are relatively small f) the arterial vascular network is poorly developed
2. Features of skin function in children 1 year of life
 - a) protective above – respiratory below
 - b) protective higher - respiratory higher
 - c) protective lower - respiratory higher d)
 - protective lower - respiratory lower
3. Lymph nodes that collect lymph from the palatine tonsils in children
 - a) posterior cervical
 - b) anterior cervical
 - c) submandibular
 - d) axillary
4. Zaitseva formula
 - a) 2% of birth weight x age in days b) age in days x 70 (80)

c) $600 + 100 \times (\text{age in years} - 1)$

5. Entry gate of infection in late-onset neonatal sepsis a) intestine

b) lungs

c) umbilical wound

d) macerated skin

6. The main cause of perinatal mortality is a)

birth trauma

c) heart defects

b) asphyxia

d) hemolytic disease of newborns

7. Signs of acute rickets a) predominance

of osteomalacia processes

b) predominance of hyperplasia of osteoid tissue c)

pronounced autonomic disorders

d) pronounced changes in internal organs

8. Recommended research methods in the diagnosis of lymphatic-hypoplastic constitutional anomalies

a) general blood test

b) chest x-ray c) stool for

dysbacteriosis

d) general urine test

e) immunogram

f) study of the level of ACTH, TSH, cortisol in the blood

9. Basic principles of treatment of iron deficiency anemia in children a) therapy is carried out with iron-containing drugs; parathas

b) drugs are prescribed enterally

c) blood transfusion is carried out when the hemoglobin level is below 100

g/l d) therapy should not be stopped after the level normalizes

hemoglobin

e) iron supplements are prescribed only parenterally

10. Exogenous causes of malnutrition in children a)

qualitative or quantitative underfeeding

b) infectious diseases of the gastrointestinal tract c)

defects in care

d) inborn errors of metabolism

Sample answers

1	A, B, D	6	B
2	IN	7	A, B
3	A, B	8	B, D
4	A	9	A, B, D
5	IN	10	A B C

Practical skills.

1. Methodology for collecting information (complaints, anamnesis) from patients;

2. Methods of examining patients of different ages;

3. Methodology for conducting anthropometry of children of different ages and its assessment

4. Rules for breastfeeding, assessment sucking efficiency

5. Calculation of the amount of food for infants, determining the amount of supplementary feeding

6. Timing of administration and preparation rules

complementary foods

7. Method of collecting urine for research in children different ages and genders

8. Method of collecting stool for research

9. Interpretation of laboratory values

10. Determination of different health groups for children age for dispensary observation, rehabilitation

Situational tasks

Task No. 1.

At a reception in a children's clinic on Healthy Child's Day, a mother with a 3-month-old child. On examination, body weight was 6800 g, length 56 cm, at birth body weight 3200, length 50 cm.

Questions:

1. Assess indicators of physical development
2. What other indicators need to be taken into account when assessing physical development?
3. Plan of preventive measures for the next month

Task No. 2.

At a reception in a children's clinic on Healthy Child Day, a mother with a 12-month-old child. On examination, body weight 8800 g, length 70 cm, at birth body weight 3200, length 50 cm

Questions:

1. Assess physical development indicators
2. Indicate the indicators of respiratory rate, heart rate
3. What other indicators need to be taken into account when assessing physical development?
4. Preventive action plan for next month

Task No. 3

Calculate the daily and one-time amount of food, indicate the needs for proteins, fats, carbohydrates and calories and write a menu for a 5-month-old child born with a weight of 3500, who is bottle-fed.

Task No. 4

Calculate the daily and one-time amount of food and write a menu for a 9-month-old child born with a body weight of 3000 g, who is breastfed.

Problem #5

Calling a doctor to a newborn's home. To kid 5 days. Complaints about yellowness of the skin,

skin rashes. Upon objective examination, the child's condition is satisfactory, the skin is icteric, and there are areas of erythema on the skin of the forearms, thighs, and buttocks. The liver protrudes 2.0 cm from under the edge of the costal arch.

Questions:

1. What are the reasons for the above complaints?
2. Does the child need inpatient examination and treatment?
3. Your recommendations to the mother for caring for the newborn

Sample answers

Task No. 1.

1. State of paratrophy
2. Head and chest circumference
3. 32, 120
4. Vaccination against whooping cough, diphtheria, tetanus, Haemophilus influenzae, polio

Task No. 2

1. Hypotrophy 1st degree
2. Head and chest circumference
3. 26, 110
4. Examination by specialists: neurologist, orthopedic surgeon, ophthalmologist, ENT, OAC, OAM. Mantoux test. Vaccination: measles, rubella, mumps

Problem #5

1. Borderline state newborn:
physiological jaundice, toxic erythema
2. Doesn't need
3. Monitor bowel regularity

8th semester

4. Interim certification

Test questions for an interview

1. Exogenous and endogenous risk factors for the occurrence of prenatal and extrauterine dystrophy.
2. Hypotrophy: clinic, diagnostics, differential diagnosis. Treatment of patients with malnutrition: staged diet therapy, drug treatment and prevention.
3. Risk factors for the development of deficiency of phosphates and calcium salts in children.
4. Clinical manifestations of rickets of varying severity and course. Diagnostics, differential diagnosis. Treatment and prevention.
5. Spasmophilia: clinical picture, diagnosis, emergency measures.
6. Hypervitaminosis D: clinical picture, diagnosis, treatment, features of diet therapy for hypervitaminosis D.
7. Features of the composition of peripheral blood in children, dynamics of the main cell populations of blood in

different age periods, characteristic myelograms.

8. Anemia: definition, prevalence. Pathogenesis of iron deficiency conditions. Clinical and laboratory diagnostics of predominantly iron deficiency anemia in children. Differential diagnosis of deficiency anemias. Stages of treatment of iron deficiency anemia, calculation of the dose of the drug for enteral and parenteral use. Types of prevention of iron deficiency anemia. Dispensary observation, forecast.
9. Constitutional anomalies in young children. Diagnostics. Possibility of ante- and postnatal prevention. Features of diet therapy, vaccination, dispensary observation of children with constitutional anomalies. Clinic of acetonemic vomiting. Diagnostics, differential diagnosis. Emergency measures for acetone crisis in children.
10. Functional gastrointestinal disorders in young children: regurgitation, vomiting, stool disorders (intestinal dysbiosis, irritable bowel syndrome, constipation). Infantile colic.
11. Lactase deficiency: primary, secondary, clinical picture, differential diagnosis, treatment.
12. Chronic diseases of the stomach and duodenum: clinical picture of chronic gastroduodenitis, gastric ulcer and duodenal ulcer, possibilities for diagnosing the disease, methods for detecting *Helikobacter pylori*. Diet therapy, medicinal therapy, rehabilitation.
13. Biliary dyskinesia, their connection with gastroduodenal pathology. Features of the clinic and treatment of various variants of dyskinesia. Irritable bowel syndrome - definition, etiology and pathogenesis, clinical picture. Diagnosis and differential diagnosis, treatment and prevention.
14. Urinary tract infections in children. Etiology, clinical picture of acute pyelonephritis, its features in young children. Laboratory diagnostics. Clinical and laboratory criteria for process activity. Features of diet therapy for various types of dysmetabolic nephropathy in children. Principles of antibacterial therapy for urinary tract infections.
15. Acute post-streptococcal glomerulonephritis. Features of the clinical picture of various variants of the course of the disease. Diagnostic criteria for OSGN, differential diagnosis, differentiated approach to pathogenetic therapy.
16. Acute rheumatic fever: features of clinical manifestations and course in childhood

age.

17. Non-rheumatic carditis: diagnosis and differential diagnosis with heart damage in rheumatic fever, arrhythmias, myocardial dystrophy.
18. Congenital heart defects with enrichment of the pulmonary circulation (ASD, VSD, patent ductus arteriosus): clinical picture, differential diagnosis.
19. Congenital heart defects with depletion of the pulmonary circulation (isolated pulmonary artery stenosis, tetralogy of Fallot).
20. Thrombocytopenic purpura: clinical picture of various variants and stages of thrombocytopenic purpura purples. Laboratory research, endothelial samples. Differential diagnostics And differentiated therapy for various types of thrombocytopenia.
21. Hemophilia: classification, clinical picture, criteria for assessing the severity of hemophilia, diagnosis and clarification of the type of hemophilia.
22. Henoch-Schönlein disease: clinical features, diagnosis, treatment. Principles for selecting the dose of heparin, indications for prescribing corticosteroids. Differential diagnosis of hemorrhagic syndrome in children.
23. Acute leukemia in children. Morphological options. Clinical picture of the onset of the disease. Laboratory and instrumental data confirming the diagnosis. Interpretation of hemograms and bone marrow puncture results. Principles of Chemotherapy acute leukemia, differentiated approach to treatment of various options. Complications of the disease itself and complications of therapy, the possibility of their early diagnosis and treatment.
24. Autonomic dystonia syndrome. Treatment and prevention.

Test control

1. Characteristic signs of exudative-catarrhal constitutional anomaly
 - a) polymorphic skin rashes
 - b) increased sensitivity and vulnerability of mucous membranes
 - c) loss of body weight
 - d) decreased resistance to infectious agents
 - e) decreased tissue turgor
2. Recommended research methods in the diagnosis of lymphatic-hypoplastic anomalies constitution
 - a) general blood test
 - b) chest x-ray

- c) stool for dysbacteriosis
- d) general urine test e) immunogram
- f) study of the level of ACTH, TSH, cortisol in the blood

3. Diagnostic method to confirm the recurrent course of rickets

- a) clinical c) X-ray
- b) biochemical d) genetic

4. Recommended drugs for the treatment of iron deficiency anemia in young children a) hemofer

- d) dardiferon
- b) sorbifer d) ferrum-lek syrup
- c) maltofer e) totem

5. Exogenous causes of malnutrition in children

- a) qualitative or quantitative underfeeding
- b) infectious diseases of the gastrointestinal tract
- c) defects in care
- d) inborn errors of metabolism

6. Acute glomerulonephritis with nephrotic syndrome has a combination of symptoms

- a) dysproteinemia, hyperlipidemia, hematuria b) hypoproteinemia, hyperlipidemia, proteinuria

c) leukocyturia, microhematuria, proteinuria

d) hypertension, hyperlipidemia, proteinuria

6. "Starter" antibiotics in the treatment of manifest severe pyelonephritis

- a) penicillin d) ceftriaxone
- b) amoxicillin-clavulanate c) e) lincomycin
- cefotaxime

8. Major Kessel-Jones diagnostic criteria used in the diagnosis of acute rheumatic fever

- a) carditis e) rheumatic nodules f)
- b) polyarthritits erythema annulare g)
- c) uveitis erythema nodosum
- d) chorea

9. The most common cause of the development of non-rheumatic carditis in children

- a) viral infections c) allergies

b) bacterial infections d) chromosomal abnormalities

10. Characteristic signs of the initial period of acute leukemia in children

- a) unmotivated rises in temperature b) ossalgia
- c) joint deformation
- d) enlarged lymph nodes

Response standards.

1	A, B, D, D	6	B
2	A, B, D, E	7	A, B
3	IN	8	A, B, D, D, E
4	A, D	9	A
5	A B C	10	A B C

Situational tasks

Task No. 1.

Kolya S., 8 months old, examined at the children's clinic local pediatrician. The child was born from the first pregnancy of a 36-year-old woman. During pregnancy I suffered from ARVI three times. Childbirth is rapid. From the age of 2 months, the child is registered with a neurologist due to perinatal encephalopathy. Since the age of 3 months, he has been suffering from ARVI every month, twice with symptoms of obstructive bronchitis.

Objectively: the condition is satisfactory. The boy is lethargic and inactive. Body weight 9800g. The skin is pale with a pronounced marble pattern, tissue turgor is reduced. The subcutaneous fat layer is overexpressed. The muscles are poorly developed and their tone is reduced. Enlarged lymph nodes of all groups are palpated. The tonsils protrude from behind the arches, the posterior wall of the pharynx is granular. Koranyi's sign from the 5th thoracic vertebra. Breathing is puerile. Heart sounds are loud, functional systolic murmur at the apex. The abdomen is slightly enlarged in volume, the liver protrudes 4 cm, the spleen 2 cm from under the edge of the costal arch.

Questions:

1. Determine which health group this child can be classified into and why?
2. What additional studies are needed to confirm the diagnosis and their expected results?
3. Make a plan for preventive measures in the clinic.

STANDARD ANSWER:

1. II B health group, because the child is registered with a neurologist for perinatal encephalopathy, frequent respiratory diseases

(more than 4 episodes per year), burdened obstetric history, signs of lymphatic-hypoplastic constitutional abnormality (lethargy, physical inactivity, pallor, marbling of the skin, decreased tissue turgor, paratrophy, decreased muscle tone, hyperplasia of lymphoid tissue - enlarged lymph nodes of all groups+ intrathoracic lymph nodes (Koranyi's sign), enlarged palatine tonsils, granularity of the posterior pharyngeal wall, hepatosplenomegaly)

2. OAC – tendency to absolute neutropenia, monocytopenia.

Blood test: hypoglycemia, increased cholesterol, phospholipids. Immunogram – decrease in T-, B-lymphocytes, violation of the T-helper/T-suppressor ratio, decrease in the level of humoral IgA, G, decrease in secretory IgA, deficiency of local immunity at the level of mucous membranes, increase in the central nervous system.

Decrease in the concentration of thymus factors in the blood, 17-ketosteroids in the urine.

Thymomegaly on the chest x-ray (CTTI>0.33, VCI>0.6)

3. 1. Diet: Calculation of the need for fats and carbohydrates must be based on the expected weight, the need for proteins - on the actual one.

2. Hardening, massage, gymnastics, training child breathing through the nose.

3. Individual schedule of preventive vaccinations, preparing the child for vaccinations - 5-7 days before vaccination and as many as before - taking membrane-stabilizing drugs, 2-3 days before and 3-5 days after vaccination - a fast-acting diuretic). In case of confirmed immunodeficiency - vaccination after immunocorrection.

4. The use of adaptogens (dibazole, pentoxyl, glyceram, potassium orotate, ginseng, eleutherococcus) 2-3 times a year, in courses of 10 days.

5. Immunocorrection for confirmed immunodeficiency.

Problem 2

An 8-month-old child, born with a weight of 3200 g, who is still breastfed, developed pale skin, lethargy and decreased appetite. Over the past 2 months, the child has had ARVI 3 times.

Objectively: Correct physique. Weight 10200 g. The skin and visible mucous membranes are pale, the hair is dull, the papillae of the tongue are smoothed. Heart sounds

satisfactory sonority, 130 per minute, systolic murmur above the apex. From other organs and systems – without visible pathology.

Blood analysis:

Er. $2.8 \times 10^{12}/l$; Hb – 72 g/l; Color – 0.77; Lake. – $10 \times 10^9/l$; B. – 1%; E. – 2%; PVI – 5%; S\ya. – 25%; Lf. – 60%; Mon. – 7%; ESR – 12 mm/hour

Questions:

1. Formulate a clinical diagnosis, determine the severity diseases.
2. Justify the diagnosis, select the risk factors that contributed to its development.
3. What other laboratory tests need to be done to confirm the diagnosis, expected results
4. Prescribe treatment.

Response standard

1. Iron deficiency anemia II degree, moderate degree of severity.
2. Past respiratory infection.
3. Blood test for serum iron (less than $14 \mu\text{mol/l}$), PVSS (more than $63 \mu\text{mol/l}$), determination of the level of ferritin in the blood serum (less than $15 \mu\text{mol/l}$), determination of ITN (saturation of transferritin with iron) - less than 20%.

4. 1. Diet therapy. Introduction to Diet meat products; in formula-fed children, use adapted formulas with a high iron content.

2. Iron supplements – maltofer – 10 drops x 1 time per day under the control of CBC (hemoglobin, erythrocytes, reticulocytes) 3-5 months.

Task No. 3

A 2-year-old girl was admitted to the department with complaints of an increase in temperature to 38.5° , lethargy, loss of appetite, abdominal pain, frequent painful urination.

From the anamnesis it is known that at the age of eight months the child also had a fever, a decrease in appetite, anxiety and frequent stools. The girl was hospitalized in the infectious diseases department, but after receiving the results of urine tests and a smear for the intestinal group, she was transferred to the somatic department, where antibacterial therapy was administered. The girl felt well for more than a year. Three days before admission, the listed complaints reappeared.

Objectively: the general condition is serious. The girl is lethargic. The skin is pale, there is a slight pastiness of the eyelids. Visible mucous membranes are pink in color and dry.

Auscultation over the lungs reveals puerile breathing. Heart sounds are loud. Pulse 120 beats per minute. The abdomen is soft and painless. Chair 1 time, decorated. Urination is frequent and painful.

Examination carried out: General blood analysis: red blood cells $3.8 \times 10^{12}/l$, hemoglobin 120 g/l, color index 0.9, leukocytes $12.0 \times 10^9/l$, eosinophils 2%, band 11%, segmented 67%, lymphocytes 13%, monocytes 7%, ESR 18 mm/hour.

General urine analysis: quantity - 50 ml, color - yellow, transparency - incomplete, relative density 1018, protein - 0.66 g/l, leukocytes - 20-25x/, in places of accumulation up to 40 - 50 x/, red blood cells - no.

Urine analysis for flora and sensitivity: E. coli isolated - 1.3×10^5 microbial bodies, sensitive to co-trimoxazole, amoxicillin and gentamicin.

Biochemical blood test: urea - 6.5 mmol/l, creatinine - 0.15 mmol/l, residual nitrogen - 24 mmol/l.

Ultrasound of the kidneys: nephroptosis 2-3 degrees on the left.

QUESTIONS:

1. Formulate a diagnosis according to the classification.
2. Select clinical syndromes and data from additional methods studies specific to this disease.
3. What other additional studies are needed to confirmation of the diagnosis and their expected results?
4. Prescribe treatment.

Sample answer:

1. Secondary pyelonephritis, acute course, active stage, with impaired renal function.
2. The skin is pale, the eyelids are slightly pasty, urination is frequent and painful. In OAM - leukocyturia, decreased transparency. Nonspecific inflammatory changes in the OAK. A biochemical blood test revealed a significant decrease in creatinine and an increase in urea.

Nephroptosis on ultrasound

3. Urine for sterility, Zimnitsky test (hypoisostenuria, nocturia), scintigraphy, urine according to Nechiporenko, excretory urography.
4. Sanitation of chronic foci of infection.

Problem 4

Anya A., 6 years old, was admitted to the children's department with complaints of repeated vomiting. The day before, the girl was visiting, where she ate meat, chocolate, and drank a lot of carbonated drinks. I slept restlessly at night and woke up out of fear. In the morning, nausea, headache, refusal to eat and vomiting every 15-20 minutes appeared.

The girl was born from the second normal pregnancy, the second term birth. She grew up restless, active, and inquisitive. She started reading at the age of 4 and easily remembers poems. My grandfather has urolithiasis, my mother has migraines.

Upon objective examination, the condition is moderate, the temperature is normal. The girl is conscious. Pungent odor of acetone from the mouth. The oral mucosa, lips and tongue are dry. Vesicular breathing in the lungs. Heart sounds are loud and clear. The abdomen is soft, painless, somewhat retracted. There was no chair.

At the receiver, tests were taken for biochemical research: glucose - 5.2 mmol/l, urine test for sugar - negative, urine test for acetone - sharply positive.

Questions:

1. Formulate a diagnosis according to the classification.
2. Indicate the main causes and predisposing factors for the development of this condition.
3. What urgent measures should be taken?
4. Give recommendations for the prevention of this condition.

Sample answer:

1. Neuro-arthritic anomaly of constitution, acetonemic vomiting.
2. A burdened family history - the mother has migraines and the grandfather has stone disease. Diet violation - meat, chocolate, in large quantities, carbonated drinks
3. 1. Cleansing enema, gastric lavage.
2. IM metoclopramide - 0.1 ml/year.
3. IV drip glucose-saline solutions 30-50 ml/kg.
4. Essentiale Forte - 1-2 caps/day, 1-2 weeks, vitamin B12 (100-300 mcg IM every other day No. 3-5). 4. Diet low in purine bases. Drink plenty of alkaline drinks. Limiting excessive mental and emotional stress. Light sedative therapy - valerian root, amphibian herb, passionflower herb. For loss of appetite - vitamins B1.6, cobamamide, potassium orotate.

Problem 5

Misha V., 6 years old, was admitted to the clinic due to bleeding from the socket of an extracted tooth, which occurred 1.5 hours after visiting the dentist. At the age of 2 years, prolonged nosebleeds were noted; after the bleeding stopped, planned preventive measures were not carried out at the hematology center due to the parents' refusal.

From early childhood, my maternal grandfather suffered from prolonged nosebleeds and hemarthrosis twice.

On examination the condition is moderate. The skin is pale. There is a loose clot in the area of the extracted tooth, and bleeding continues. From other organs and systems - without visible pathology.

General blood test: Er – $3.0 \times 10^{12}/l$, Nv-96 g/l, CP-0.9, leuk.- $7.0 \times 10^9/l$, e-2%, p/i-5%, s/i-45%, lymph.-42%, mon.-6%, ESR-12 mm/h, platelet count- $200 \times 10^9/l$.

The level of antihemophilic factor is 8% of normal.

Questions:

1. Formulate a clinical diagnosis and justify it.
2. What other indicators of hemostasis should be changed (a, b, c).
3. Carry out emergency measures and prescribe planned, preventive therapy (a, b, c, d).

Sample answer to problem 5

1. Hemophilia A, mild severity, bleeding from the oral mucosa. Posthemorrhagic anemia 1 tbsp.
2. a) prolongation of blood clotting time according to Lee-White (more than 15 minutes)
b) prolongation of activated partial thromboplastin time (more than 40 seconds), hypocoagulation on the electrocoagulogram.
3. a) immediate administration of FSC (clotting factor concentrate) 30 IU/kg IV bolus; b) consultation with a dentist: removal of the clot and joining the edges using fibrin glue, followed by irrigation with E-AKK, transamine; c) chilled pureed food; d) repeated administration of FSC 20 IU/kg after 8-12 hours, then (with complete stoppage of bleeding) 3 times a week for several months until the AGF level increases to 30-40% of the norm, clinical observation at the hematology center.

Practical skills and abilities

1. Methodology for collecting information (complaints, anamnesis) from patients;
2. Methods of examining patients of different ages;
3. Draw up an algorithm for treating a child suffering from iron deficiency anemia.
4. Draw up an algorithm for treating a child suffering from rickets.
5. Draw up an algorithm for treating a child suffering from malnutrition.
6. Draw up an algorithm for treating a child suffering from hypervitaminosis D
7. Create an algorithm for monitoring a child with constitutional anomalies.

8. Draw up an algorithm for treating a child suffering from pyelonephritis.
9. Draw up an algorithm for treating a child suffering from glomerulonephritis.
10. Draw up an algorithm for treating a child suffering from hemophilia.
11. Draw up an algorithm for treating a child suffering from thrombocytopenia.
12. Draw up an algorithm for the treatment of a child suffering from hemorrhagic vasculitis.
13. Draw up an algorithm for treating a child suffering from acute leukemia.
14. Create an algorithm for treating a child suffering from acute rheumatic fever
15. Draw up an algorithm for treating a child suffering from non-rheumatic carditis.
16. Draw up an algorithm for treating a child suffering from congenital heart disease.
17. Create an algorithm for treating a child suffering from non-rheumatic carditis
18. Draw up an algorithm for treating a child suffering from vegetative dystonia syndrome.

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9th semester.

1.1.Interview

List of questions for intermediate certification

SECTION I

1. Pediatrics as the science of healthy and sick children. The main stages of development and formation of pediatrics. The role of Russian scientists in the development of pediatrics.
2. Organization of maternal and child health care in Russia. Order of the Ministry of Health of the Russian Federation dated August 10, 2017 N 514n "On the procedure for conducting preventive medical examinations of minors."
3. The main tasks and content of the work of the children's clinic and local pediatrician. Preventive direction of domestic pediatrics. Forms of medical care for children. Principles of medical examination of children, groups of clinical registration.
4. Infant mortality, its causes, structure and possible ways to reduce it.
5. Vaccine prevention calendar. Prevention of post-vaccination reactions and complications and assistance with them. Contraindications to vaccinations.
6. Vaccinal prevention of children with various background conditions.
7. Periods of childhood and their characteristics.

8. Intrauterine development of the fetus and factors influencing its development.
9. Physical development of children. Individual assessment of physical and mental development.
10. Stages of breast development. Regulation lactogenesis, biological features of human milk.

eleven. Natural feeding. Difficulties and contraindications on the part of mother and child for natural feeding.

12. Benefits of breastfeeding. Qualitative and quantitative differences in the composition of human and cow's milk.

13. Methods for calculating food volume for children infancy. Children's needs for basic food ingredients and calories.

14. National program optimization feeding of children of the first year of life in the Russian Federation (2010). Techniques for introducing complementary foods and dishes. Terms and rules for weaning a child.

15. Regime and diet of a nursing mother

16. Mixed feeding. Technique And

rules for introducing supplementary feeding. Methods for determining the amount of supplementary feeding.

17. Artificial feeding. Technique carrying out artificial feeding and criteria for assessing its effectiveness.

18. Hypogalactia, her causes, measures prevention and treatment.

19. Classification dairy mixtures, used for artificial feeding. The concept of artificial feeding correction.

20. Nutrition for healthy children over one year old. Requirements for basic food ingredients and calories. National program for optimizing the nutrition of children aged 1 to 3 years in the Russian Federation.

21. Features of nutrition of children in the first years of life with various underlying diseases (allergy, anemia, rickets, etc.).

22. Anatomical and physiological peculiarities And semiotics of skeletal system lesions in children.

23. Growth and formation of the skeleton. Closing dates fontanelles and cranial sutures. The order and timing of the eruption of primary and permanent teeth.

24. Features of phosphorus-calcium metabolism in children and its regulation. The daily requirement of children in the first years of life is phosphorus, calcium and vitamin D.

25. Anatomical and physiological peculiarities And semiotics of skin and subcutaneous tissue lesions in children.
26. Anatomical and physiological peculiarities And semiotics of damage to the muscular system. 27. Anatomical and physiological features And semiotics of respiratory diseases. 28. Anatomical and physiological features And semiotics of diseases of the cardiovascular system. 29. Features of organogenesis of cardiovascular vascular system of the fetus and newborn. thirty. Anatomical and physiological features And semiotics of damage to the lymphatic system. Development of the child's immune system. Methods for diagnosing immunodeficiency states.
31. Anatomical and physiological features And semiotics of lesions of the urinary and urinary system.
32. Anatomical and physiological peculiarities And semiotics of damage to the digestive organs. 33. Anatomical and physiological features And semiotics of damage to the nervous system and sensory organs.
34. Fetal hematopoiesis. Changing types hemoglobin and hemograms in children of various age groups.

SECTION II.

1. Antenatal fetal protection. Continuity in the work of the antenatal clinic, maternity hospital and children's clinic. The influence of alcoholism, smoking, drug addiction of parents on the development of the fetus and newborn.
2. Newborn baby. The concepts of "full term", "prematurity". Determining the degree of maturity. Intrauterine growth retardation: risk factors, clinical options, features of management of newborns with intrauterine growth retardation.
3. Principles of design and organization of work of the neonatal department of a maternity hospital (Order of the Ministry of Health of the Russian Federation dated November 1, 2012 N 572n; Order of the Ministry of Health of the Russian Federation dated November 15, 2012 No. 921n "On approval of the Procedure for the provision of medical care in the profile of "neonatology"). Transitional states of the period newborns.
4. Birth trauma. Causes, clinic, treatment.
5. Perinatal damage to the central nervous system. Clinic. Modern methods of therapy in acute and recovery periods.

6. Asphyxia of newborns. Factors leading to asphyxia. Apgar score. Primary care for newborn asphyxia. Methodological letter "Primary and resuscitation care for newborn children dated April 21, 2010 No. 15-4/10/2-3204.

7. Hemolytic disease of newborns: etiology, pathogenesis, clinical picture of various forms. Treatment and prevention.

8. Etiology, pathogenesis, classification and clinical picture of sepsis in newborns and infants.

9. Modern methods of diagnosis and treatment of sepsis in newborns and infants.

10. Prevention of purulent-septic diseases in newborns in the maternity hospital. eleven.

The concept of atopic march. The role of the regime and diets of pregnant and nursing mothers in the prevention of allergic mood of the child's body.

12. Lymphatic-hypoplastic diathesis in children. Clinical manifestations, prevention. 13.

Purine metabolism disorders. Clinical manifestations. Prevention. Acetonemic vomiting. Clinic and emergency procedures.

14. Etiology, pathogenesis, classification and Clinic of rickets in children. National program "Vitamin D deficiency in children and adolescents of the Russian Federation: modern approaches to correction" (2018).

15. Differential diagnosis of rickets and rickets-like diseases in children. Treatment and prevention of rickets.

16. Hypervitaminosis D, clinical picture and treatment.

17. Chronic eating disorders in children.

Etiology, pathogenesis, classification. Clinic of malnutrition in young children. 18.

Diagnosis, treatment and prevention of malnutrition in children.

19. Clinic, diagnostics and treatment of uncomplicated ARVI in children. Emergency care for hyperthermia.

20. Stenosing laryngotracheitis in children: etiology, pathogenesis, classification. Clinic of various stages of laryngeal stenosis.

21. Differential diagnosis of the syndrome of obstruction of the upper respiratory tract. Emergency treatment of laryngeal stenosis at the prehospital stage and in the hospital.

22. Classification of bronchitis in children. Clinic, diagnosis and treatment of acute simple bronchitis.

23. Acute obstructive bronchitis in children: etiology, pathogenesis, clinical picture. Tal scale for assessing the severity of broncho-obstructive syndrome. Emergency care for obstructive bronchitis in children at the prehospital stage and in a hospital setting.

24. Acute bronchiolitis in young children. Etiology, clinic. Differential diagnosis of bronchitis, bronchiolitis and pneumonia in young children.

25. Treatment of acute bronchiolitis in children. Acute respiratory failure: classification, severity, diagnostic criteria. Treatment of acute respiratory failure in young children. 26.

Modern classification of pneumonia in children. Pathogenesis of respiratory failure in pneumonia. Basic criteria for diagnosing pneumonia in children.

27. Clinical and morphological forms of pneumonia in young children and their characteristics depending on the etiology.

28. The main complications of pneumonia in children. Clinic of pleurisy and respiratory distress syndrome of the adult type.

29. Basic principles of treating pneumonia in children.

thirty. Differential diagnosis of convulsive syndrome. Clinical picture and emergency care.

32. Pylorospasm, pyloric stenosis. Clinic, diagnosis, treatment.

33. Classification of anemia in children. Etiology, pathogenesis, clinical picture of deficiency anemia in infants and young children.

34. Treatment and prevention of iron deficiency anemia in infants and young children.

III SECTION.

1. Clinical and morphological forms of pneumonia in older children and their features depending on the etiology.

2. Etiology, pathogenesis, classification of bronchial asthma in children.

3. Features of the clinical course and diagnosis of bronchial asthma in children. The concept of "controlled asthma". Criteria for assessing the severity of the disease and the severity of an attack of bronchial asthma.

4. Basic principles of treatment of bronchial asthma in the attack and inter-attack periods of the disease. Emergency care for a severe attack of bronchial asthma.

5. Etiology, pathogenesis, pathomorphology of acute rheumatic fever in children.
6. Classification, clinical picture and diagnosis of acute rheumatic fever in children.
7. Treatment and prevention of acute rheumatic fever in children.
8. Diagnosis and emergency treatment of acute cardiac and vascular failure in children.
9. Juvenile rheumatoid arthritis. Etiology, pathogenesis, clinical picture, diagnosis and treatment. Standard of specialized medical care for children with juvenile arthritis with systemic onset 668n dated 2012-11-07.
10. Congenital heart defects with enrichment small circle blood circulation: defect interventricular partitions, open ductus arteriosus, etc. Tactics of a general practitioner in diagnosing congenital heart defects in children. Standard of specialized medical care for congenital anomalies (malformations) of the cardiac septum 1656n dated 2012-12-29.
- eleven. Congenital heart defects with depletion of the pulmonary circulation: tetralogy of Fallot, isolated pulmonary artery stenosis, etc. Tactics of a general practitioner in diagnosing congenital heart defects in children. Standard of specialized medical care for congenital pulmonary artery stenosis and other congenital anomalies of the pulmonary artery (1618n dated 2012-12-28),
12. Syndrome vegetative dystonia: classification, diagnosis, treatment, prevention and prognosis.
13. Chronic gastritis in children. Etiology, pathogenesis, clinic, treatment and dispensary observation. Standard specialized medical care for children with gastritis and duodenitis 1598n dated 2012-12-28.
14. Peptic ulcer and duodenal ulcer intestines in children. Etiology, pathogenesis, classification, clinic, treatment and follow-up. Standard of specialized medical care for children with gastric and duodenal ulcers 638n dated 2012-11-07
15. Dyskinesia biliary ways. Diagnostics, clinic, treatment and dispensary observation.
16. Etiology, pathogenesis, classification glomerulonephritis in children.

17. Differential diagnostics leading glomerulonephritis syndromes in children. Basic principles of treatment and follow-up.
18. Clinical picture and treatment of acute glomerulonephritis with nephritic syndrome in children.
19. Clinical picture and treatment of acute glomerulonephritis with nephrotic syndrome in children.
20. Clinic, diagnostics and emergency care for acute and chronic renal failure in children.
21. Modern understanding of etiology, pathogenesis, classification of pyelonephritis in children.
22. Clinic and diagnosis of acute and chronic pyelonephritis in children. And
23. Treatment of acute and chronic pyelonephritis in children, clinical observation. And
24. Classification of diseases with increased bleeding. Mechanism of hemostasis. Differential diagnostics of hemorrhagic syndrome in children.
25. Classification of coagulopathies. Clinic, diagnosis and treatment of hemophilia in children. Standard of specialized medical care for children with hemophilia A, hemophilia B, prevention of bleeding and hemorrhages if present inhibitors to blood coagulation factors VIII and IX 1235n dated 2012-12-20.
26. Classification of thrombocytopenia. Idiopathic thrombocytopenic Purpura. Predisposing factors, clinical picture, diagnosis, treatment. Emergency assistance during a crisis.
27. Hemorrhagic vasculitis. Predisposing factors, etiology, pathogenesis, clinical picture, diagnosis, treatment.
28. Classification of leukemia in children. Clinic and diagnosis of acute leukemia in children.
29. Basic principles of differentiated therapy of leukemia in children.
- thirty. Features of cardiopulmonary resuscitation in childhood. Assessment of the degree of impairment of consciousness.
31. Comatose state in children. Differential diagnosis of probable causes of coma in children. Emergency care for hyper- and hypoglycemic coma in children.
32. Acute allergic reactions in children: urticaria, Quincke's edema, Diagnosis and emergency treatment. Standard of medical care for patients with urticaria N 753 dated December 11, 2007.

33. Anaphylactic shock: etiology, pathogenesis, clinic. Urgent measures, prognosis, rehabilitation. Order of the Ministry of Health of the Russian Federation dated December 20, 2012 No. 1079n "On approval of the standard of emergency medical care for anaphylactic shock."

34. First aid in case of accidents (electrical injury, overheating, hypothermia). Order of the Ministry of Health and Social Development of the Russian Federation dated May 4, 2012 N 477n "List of first aid measures."

Test control.

- The most common cause of acute respiratory diseases in children is
 - viruses
 - bacteria
 - mushrooms
 - Giardia
- The most common morphological form of stenosing laryngotracheitis
 - catarrhal
 - edematous-infiltrative
 - fibrinous-purulent
 - ulcerative-necrotic
- Bronchodilator therapy for obstructive bronchitis in young children is carried out using
 - fenoterol
 - asthmapent
 - ipratropium bromide
 - aminophylline
 - berodual
- Main diagnostic criteria for typical pneumonia a) intoxication syndrome b) respiratory failure syndrome c) local physical changes in the lungs d) boxed tint of percussion sound e) expiratory shortness of breath
- Initial antibacterial therapy for uncomplicated typical community-acquired pneumonia in children aged 1 to 6 years is carried out using
 - amoxicillin-clavulanate
 - amoxicillin
 - gentamicin
 - clarithromycin
 - cefotaxime
 - oxacillin
- Symptoms indicating a mild exacerbation of bronchial asthma
 - shortness of breath when talking
 - may lie in bed
 - speaks proposals
 - moderate wheezing
 - the participation of auxiliary muscles in the act of breathing is pronounced
 - heart rate less than 100 per minute
- Emergency measures for "pink" fever a) wet wiping b) heating pads for arms and legs c) taking paracetamol, ibuprofen d) vasodilators IM e)

c) drinking plenty of fluids

8. Emergency treatment of convulsive syndrome includes a)
administration of seduxen c) administration of 1% diphenhydramine
b) oxygen therapy d) administration of papaverine
9. Clinical symptoms of anaphylactic shock
a) skin lesions: urticarial rash, angioedema b) respiratory disorders: dysphonia, inspiratory dyspnea
c) cardiovascular disorders: tachycardia, muffled heart sounds, decreased blood pressure pressure
d) focal seizures
e) paroxysmal abdominal pain
10. Mechanism of antipyretic action of non-steroidal anti-inflammatory drugs a) inhibition of bradykinin synthesis
b) inhibition of interferon production c) increased synthesis of interleukin -1 d) increased synthesis of prostaglandins
e) inhibition of cyclooxygenase

Sample answers

1	A	6	B, C, D, E
2	A	7	A, B, D
3	B, D	8	A, B
4	A B C	9	A B C
5	A, B	10	HELL

SITUATIONAL TASKS

1.2. Situational tasks

Task No. 1

Masha M., 3 years old, was admitted to the children's department with complaints of a frequent wet cough, shortness of breath, high temperature, lack of appetite, and general lethargy.

The child fell ill 6 days ago, when the body temperature rose to 37.8 degrees, a runny nose and a rare dry cough appeared. Symptomatic therapy was carried out, but the condition did not improve: the body temperature increased to 39 degrees from the 4th day of illness, the cough became more frequent, shortness of breath began on the 5th day, the child became lethargic, refused to eat, and vomited once.

Brief history of life. Pregnancy and childbirth for the first time, without pathology. Feeding is natural. Psychophysical development corresponds to age. From the age of 2 (she started attending kindergarten), frequent uncomplicated acute respiratory viral infections have been noted. Last episode 3 weeks ago. She did not receive antibacterial therapy for 6 months.

The condition upon admission was assessed as moderate-severe, motor activity and emotional tone were reduced, there was no appetite, but the girl drinks liquids willingly and is interested in toys. Body weight 14 kg. The skin is pale, there is no cyanosis. The mucous membrane of the posterior pharyngeal wall is slightly hyperemic. Body temperature 38.5 degrees. Lymph nodes accessible to palpation are not enlarged. Nasal breathing is free. The cough is frequent and wet. Dyspnea of mixed type, without significant participation of auxiliary muscles in the act of breathing. Ch.D.D. 48 in 1 min. On percussion above the lungs on the right in the interscapular region in the 4th-5th intercostal spaces, a shortening of the percussion sound without clear boundaries is determined, and on auscultation there is weakened breathing, single constant fine-bubble moist rales. On the left – without pathology. Heart sounds

loud, heart rate 138 per minute. The liver is at the edge of the costal arch. There was no stool during the current day. Urination is not impaired. There are no pathological neurological symptoms.

Questions:

1. Formulate a diagnosis according to the classification.
2. Select the main syndromes and their constituent symptoms, on the basis of which you formulated the diagnosis (a, b, c).
3. Make an assumption about their possible etiology? (a,b).
4. What additional studies are needed to confirm the diagnosis and their expected results (a, b, c).
5. Prescribe treatment (a, b, c, d, e, f).
6. Which component of therapy will you change if the condition does not improve by the 3rd day of treatment? Which syndrome should you focus on?
coming to the conclusion that there is no positive dynamics?

Sample answer to problem No. 1

1. Acute out-of-hospital right-sided focal pneumonia, uncomplicated, DN - degree.
2. a) intoxication syndrome (high temperature, poor health, pale skin);

b) respiratory distress syndrome (cough, shortness of breath);
c) syndrome of physical changes (local shortening of percussion sound, weakened breathing, fine moist rales).
3. a) pneumococcus;
b) hemophilus influenza.
4. a) general blood test (leukocytosis, neutrophilia with a shift to band forms, increased ESR);
b) X-ray of the chest organs (focal decrease in the transparency of the lung tissue, signs of its infiltration, heaviness of the root on the right).
5. a) ventilation of the room, inhalation in a children's oxygen tent 3-4 times for 10-15 minutes (alkaline);
b) eat normal food, exclude hard-to-digest foods, increase the amount of liquid you drink to 2 liters;
c) ampicillin 500 mg x 4 times a day;
d) "expectorant mixture" with marshmallow - 1 d.l. x 4-6 times a day, if a wet cough appears - lazolvan syrup 1 tsp. x 2 times a day;
e) paracetamol 0.2 at a temperature of - 38^oWITH;
e) multivitamins.
6. a) change of antibiotics - to cefuroxime;
b) intoxication syndrome.

Task No. 2

Sasha K., 2 years old, was admitted to the children's department with complaints of high fever, lethargy, refusal to eat, frequent dry cough, occasional wet cough, shortness of breath.

The child fell ill 5 days ago, when his body temperature rose to 39 degrees, a frequent, first dry, then wet cough appeared, and his appetite decreased. Against the background of symptomatic therapy, the temperature dropped to low-grade levels, but then rose again to 38.5-39 degrees. By the 3rd day, shortness of breath appeared, the child became lethargic, refused to eat, and repeated vomiting was noted on the day of hospitalization.

Brief history of life. Pregnancy 2 (older brother is 5 years old), proceeded with gestosis of the second half, birth was on time, physiological. Weight -3300 g. Newborn period without pathology. Artificial feeding, correct. Psychophysical development corresponded to age. Since the age of 8 months, he has often suffered from ARVI, suffered from simple bronchitis twice, the last one a month ago, and was treated with antibacterial therapy with macrolides.

Upon examination, the condition is serious, the child is very lethargic, and has a negative attitude towards the examination. Body temperature 38.6 degrees. Body weight 12 kg. The skin is pale, perioral cyanosis during motor and emotional stress. Mucous membranes are dry. Tissue turgor is slightly reduced. Lymph nodes accessible to palpation are not enlarged. The cough is frequent and unproductive. Mixed shortness of breath, respiratory rate 64 per minute, retraction of the intercostal spaces during breathing. Percussion over the lungs on the right back from the scapular spine downwards and anteriorly to the posterior axillary line is a shortening of the sound, auscultation there is bronchial breathing, bronchophony, single crepitant rales. Heart sounds are muffled, systolic murmur above the apex, heart rate - 156 per minute. The liver protrudes 2-3 cm from under the costal margin. Urination is rare. The stool is delayed for 1 day. There are no meningeal symptoms.

Questions:

1. Formulate a diagnosis according to the classification.
2. Select the main syndromes and their constituent symptoms, on the basis of which the clinical diagnosis is made (a, b, c, d, e).
3. Make a guess about possible etiological agents (a, b).
4. Outline the laboratory testing plan and describe the expected results.
5. Prescribe treatment (a, b, c, d, e, f, g, h.)

Sample answer to problem No. 2

1. Community-acquired right-sided lower lobe pneumonia, complicated by cardiac - vascular insufficiency - st., respiratory failure - st.
2. a) intoxication syndrome (high temperature, refusal to eat, pale skin, lethargy);
b) respiratory distress syndrome (cough, mixed shortness of breath, cyanosis); c) syndrome of physical changes (dullness of percussion sound corresponding to the boundaries of the lower lobe, bronchial breathing, bronchophony, crepitating rales);
d) heart failure syndrome (muffled heart sounds, systolic murmur, liver enlargement, cyanosis).
3. a) pneumococcus;
b) hemophilus influenza.
4. a) general blood test (leukocytosis, neutrophilia with a shift to the left to juvenile forms, increased ESR, with hemophilus etiology there may be no changes);
b) X-ray of the chest organs (homogeneous decrease in the transparency of the lung tissue to the right of the 4th rib downwards, the pleural sinuses are free, the roots are expanded);
c) blood gases (hypoxemia - pO₂ below 80 mm Hg);
d) ECG (decreased voltage, tachycardia, diffuse changes in the myocardium).
5. a) bed rest;
b) ventilation of the room, oxygen therapy (inhalation of alkaline solutions in the DCP every hour for 15-20 minutes);
c) dairy-vegetable foods, reducing its daily volume by ½, drinking frequently – up to 1.5 liters;

- d) ampicillin 500 mg x 4 times IM (150 mg/kg/day) or cefuroxime 350 mg x 3 times a day;
- e) corglycon 0.06% - 0.2 ml, KKB 50 mg, ascorbic acid 5% - 2.0 ml;
- f) infusion therapy with glucose-saline solutions (2:1, 50 ml/kg including trental, riboxin);
- g) paracetamol 0.2 at temperatures above 38.0°C WITH;
- h) "expectorant" mixture with marshmallow 1 d.l. x 4-6 times a day, if a wet cough appears - lazolvan (syrup) ½ tsp. x 3 times a day.

Task No. 3

Sveta O., 3.5 months old, was admitted to the clinic with her mother's complaints that the child had a frequent cough and shortness of breath.

History of life and illness: child from the first, normal pregnancy. 2 weeks before birth, treatment was carried out for purulent colpitis. Childbirth is urgent, physiological. Weight - 3300g, length - 50 cm. She screamed immediately, was applied to the chest after 2 hours. Up to 3 weeks, purulent discharge from the eyes was noted, which spontaneously disappeared. From 1.5 months a cough appeared, at first rare ("coughing"), then in the 3rd month more frequent, dry, in recent days the cough acquired an obsessive character, became paroxysmal, and shortness of breath appeared. Body temperature is consistently normal. The child received outpatient treatment with amoxicillin, cephalixin, and expectorants. She was referred for hospitalization due to the lack of effect of therapy and deterioration of her condition.

The child is breastfed. Neuropsychic and physical development corresponds to age.

Upon examination, the condition is serious. M - 6000g, length - 63 cm. T - 36.8°C. The child is capricious, but does not refuse food. The skin is pale, and when screaming there is perioral cyanosis. BH - 64 per minute. Mixed shortness of breath, retraction of the intercostal spaces is noted. Percussion - above the lungs there is a boxy tone of sound. Auscultation - hard breathing, scattered small- and medium-bubble wet and dry "wheezing" wheezing on both sides, isolated dry wheezing. Heart sounds are loud. Heart rate - 124 per minute. Liver +1 cm. Stool and urination are not impaired.

X-ray of the chest organs: disseminated foci of low intensity, up to 3-4 mm in diameter, without clear boundaries against the background of a diffuse increase in the bronchovascular pattern, are determined on both sides.

General blood test: Hb-120 g/l, Er- 3.8×10^{12} /l, Lf- 12×10^9 /l, E-8%, p/ya-4%, s/ya-24%, Lf-58%, Mon-6%, ESR-20 mm/h.

Questions:

1. Formulate a diagnosis according to the classification.
2. Based on what anamnestic, clinical and laboratory signs was the diagnosis made? (a, b, c, d, e, f, g, h).
3. What research methods can be used to confirm the suspected etiology of the disease? Possible results (a, b, c).
4. Prescribe treatment (a, b, c, d, e, f, g)
5. What, from your point of view, is the reason for the ineffectiveness of therapy at the prehospital stage.

Sample answer to problem No. 3

- 1) Community-acquired bilateral focal chlamydial pneumonia, DN --st.
- 2) a) purulent colpitis in the mother
 - b) conjunctivitis in the neonatal period
 - c) gradual onset with the appearance of a rare, then paroxysmal cough d) normal body temperature

e) shortness of breath of a mixed nature

e) physical changes (box percussion sound, bilateral wet

wheezing)

g) characteristic radiological changes (disseminated foci) h) hemogram data (leukocytosis, eosinophilia, increased ESR)

3) Detection of antibodies in the blood (ELISA method) to Chlamydia trachomatis; Ig M -1/8 and/or Ig G-1/64 (if the titer is greater than that of the mother). PCR reaction (+).

4) a) breastfeeding after 3-3.5 hours, additional drinking water -250.0 ml (compensation for water loss with shortness of breath: 20x20x6.6)

b) oxygen therapy (20-30 minutes every 2 hours) in PrEP

c) macrolide antibiotics 10-12 days: for example, rovamycin (1.5 million/10kg): 0.5 million (1/3 tab)x2 times; or in the first 2-3 days (until the condition improves) intravenously, then per os. d) inhalation (nebulizer): Berodual 6 drops + 2 ml saline solution - 3 times a day, Lazolvan 2.0 ml x 2 times a day

e) lazolvan inside: syrup - (2.5 ml) ½ tsp. x 2 times or 1.0 ml solution x 2 times a day.

5) Natural resistance of chlamydia to lactam antibiotics.

Problem No. 4

Sasha P., 1.5 years old, was admitted to the children's department with complaints of a "barking" cough, hoarseness, and increased body temperature.

I fell ill the day before, when a rare dry cough appeared, the temperature rose to 38 degrees C. At night, the condition suddenly worsened, and the indicated symptoms appeared.

The child's condition is moderate. Calm, capricious when examined. The temperature is 37.8 degrees C. The voice is hoarse, the cough is frequent, sonorous, "barking." There is no shortness of breath, breathing at rest is silent. With anxiety, noisy breathing, inspiratory shortness of breath are noted, inhalation is accompanied by retraction of the jugular fossa and upper intercostal spaces. The skin is pale pink. The mucous membrane of the oropharynx is hyperemic and granular. Respiration rate is 36 per minute. Percussion above the lungs reveals a box-shaped sound, auscultation reveals puerile breathing, inhalation is slightly prolonged, no wheezing. Heart sounds are loud, rhythmic, heart rate 136 per minute. The abdomen is soft, the liver is not enlarged, stool and urination are not impaired.

Questions:

1. Formulate a diagnosis.
2. Highlight the 3 main symptoms of the disease.
3. Indicate the possible etiology of acute respiratory viral infection, in which this complication most often develops.
4. What diseases should be considered for differential diagnosis?
5. What laboratory tests are usually prescribed for this pathology and what are the possible results?
6. Treatment plan for the day of hospitalization.
- 7.

Sample answer to problem No. 4

1. ARVI, pharyngitis, laryngotracheitis, complicated by compensated laryngeal stenosis.
2. Dysphonia, barking cough, inspiratory dyspnea.
3. Parainfluenza
4. a) Diphtheria
b) allergic stenosis of the larynx c) epiglottitis
d) laryngeal papillomatosis

5. a) virological examination of nasal mucus using immunofluorescence - the parainfluenza virus is most often isolated;
 b) bacteriological examination of swabs from the throat and nose for diphtheria - the result is negative;
 c) general blood test – leukopenia, relative lymphocytosis.
6. a) constant stay in a room with humidified air; b) frequent warm drinks;
 c) Viferon - 1 St. x 2 times a day;
 d) interferon 2-3 drops in the nose 4-6 times a day;
 e) lazolvan (syrup) ½ tsp. x 2 times a day;
 g) inhalation in a children's oxygen tent for 30-40 minutes - vasoconstrictor mixture - 10 minutes, then 15-20 minutes - alkaline solution.

Problem No. 5

An 11-year-old girl was taken to the children's department of the hospital in very serious condition, unconscious. From the anamnesis it was possible to find out that over the past 1.5 months the girl complained of weakness, increased appetite, constant thirst, and increased frequency of urination. In the last 3-4 days, weakness has increased, drowsiness has increased, appetite has sharply decreased, nausea, vomiting, and sometimes abdominal pain have appeared. This morning the child lost consciousness and was hospitalized. During the examination, it was not possible to make contact with the child. Noteworthy were facial hyperemia, dry and cold-to-touch skin, sunken eyes, dark circles under the eyes, pointed facial features, body temperature 36.6 degrees, respirations 14 per minute, deep and noisy (Kussmaul type), pulse 120 per minute, during auscultation of the heart, the tones are muffled, rare extrasystoles are heard. Blood pressure is reduced. Skin and tendon reflexes are reduced.

1. What is your presumptive diagnosis?
2. What studies need to be carried out to clarify the diagnosis?
3. Emergency treatment?

Sample answer:

1. Hyperglycemic coma.
2. Blood for glucose, urine for ketone bodies.
3. Transfer of the child to the ICU for intensive care, mechanical ventilation.

Zproblem #8

A 4-year-old child is admitted to reception. From the anamnesis it is known that, while relaxing with his parents at a local pond, he spent a long time in the open sun without a hat. Complaints of severe headache, vomiting, one-time loss of consciousness. Objectively: the condition is serious, the child is conscious and lethargic. Body temperature 38.1 degrees. The skin is pale, dry, hot to the touch, acrocyanosis. Breathing is shallow, respiratory rate – 30 per minute. Pulse is threadlike, 120 per minute.

1. What condition should you think about?
2. Emergency care?

Sample answer:

1. Heat stroke, hyperthermia.

2. Transfer to the ICU, physical methods of cooling, oxygen therapy, IV drip
Ringer's solution 20 ml/kg/hour, IM drotaverine 2% 0.2 ml/year.

11. Description of indicators and criteria for assessing competencies at the stages of their formation, description of assessment scales

Criteria	Levels of competency development		
	<i>Threshold</i>	<i>Sufficient</i>	<i>High</i>
	Competence formed. Demonstrated threshold, satisfactory sustainable level practical skill	Competence formed. Demonstrated enough level independence, sustainable practical skill	Competence formed. Demonstrated high level independence, high adaptability practical skill

Competency assessment indicators and rating scales

Grade "unsatisfactory" (not accepted) or absence formation competencies	Grade "satisfactorily" (passed) or satisfactory (threshold) level of development competencies	Rated "good" (passed) or sufficient level development competencies	Excellent rating (passed) or high level development competencies
failure to student on one's own demonstrate knowledge when solving assignments, lack independence in application of skills. Absence confirmation availability formation competencies indicates negative development results academic discipline	student demonstrates independence in application of knowledge skills and abilities to solve educational tasks in full According to sample given teacher, by tasks, solution of which there were shown teacher, it should be considered that competence formed on satisfactory level.	student demonstrates independent application knowledge, skills and skills at solving tasks, similar samples that confirms Availability formed competencies for higher level. Availability such competence on sufficient level indicates sustainable	student demonstrates ability to full independence in choosing a method solutions non-standard assignments within disciplines with using knowledge, skills and skills, received as in development progress given disciplines and adjacent disciplines should be considered

		fixed practical skill	competence formed at a high level.
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Criteria for evaluating forms of control: Interviews:

Mark	Description
Great	The mark "EXCELLENT" is given to an answer that shows a solid knowledge of the basic processes of the subject area being studied and is distinguished by the depth and completeness of the topic; mastery of terminology; the ability to explain the essence of phenomena, processes, events, draw conclusions and generalizations, give reasoned answers, give examples; fluency in monologue speech, logic and consistency of response.
Fine	The mark "GOOD" evaluates an answer that reveals a solid knowledge of the basic processes of the subject area being studied, and is distinguished by the depth and completeness of the topic; mastery of terminology; the ability to explain the essence of phenomena, processes, events, draw conclusions and generalizations, give reasoned answers, give examples; fluency in monologue speech, logic and consistency of response. However, one or two inaccuracies in the answer are allowed.
satisfactorily	The mark "SATISFACTORY" evaluates an answer that mainly indicates knowledge of the processes of the subject area being studied, characterized by insufficient depth and completeness of the topic; knowledge of the basic issues of theory; poorly developed skills in analyzing phenomena and processes, insufficient ability to give reasoned answers and give examples; insufficient fluency in monologue speech, logic and consistency of response. There may be several errors in the content of the answer.
unsatisfactory	The mark "UNSATISFACTORY" evaluates an answer that reveals ignorance of the processes of the subject area being studied, characterized by a shallow disclosure of the topic; ignorance of the basic issues of theory, unformed skills in analyzing phenomena and processes; inability to give reasoned answers, poor command of monologue speech, lack of logic and consistency. Serious errors in the content of the answer are allowed.

Test control grading scale:

percentage of correct answers	Marks
91-100	Great
81-90	Fine
71-80	satisfactorily

Less than 71

unsatisfactory

Situational tasks:

Mark	Description
Great	Demonstrate a thorough understanding of the problem. Ability to analyze a situation and draw conclusions Demonstration of confident situation-solving skills Demonstration of professional thinking
Fine	Demonstrate significant understanding of the problem. Ability to analyze a situation Demonstration of situation-solving skills Demonstration of professional thinking
satisfactorily	Demonstration of partial understanding of the problem. Demonstration of insufficient ability to analyze a situation Demonstrating poor problem solving skills
unsatisfactory	Demonstrating a lack of understanding of the problem. There was no attempt to solve the problem.

Skills:

Mark	Description
Great	student has systemic theoretical knowledge (knows the methodology for performing practical skills, indications and contraindications, possible complications, standards, etc.), independently demonstrates the implementation of practical skills without errors
Fine	the student has theoretical knowledge (knows the methodology for performing practical skills, indications and contraindications, possible complications, standards, etc.), independently demonstrates the implementation of practical skills, allowing for some inaccuracies (minor errors), which he independently detects and quickly corrects
satisfactorily	student has satisfactory theoretical knowledge (knows the basic principles of the methodology for performing practical skills, indications and contraindications, possible complications, standards, etc.), demonstrates the implementation of practical skills, making some mistakes that can be corrected when corrected by the teacher
unsatisfactory	student Not has sufficient level theoretical knowledge (does not know the methods of performing practical skills, indications and contraindications, possible complications, standards, etc.) and/or cannot independently demonstrate practical skills or performs them, making gross mistakes

Evaluation criteria for the test

Mark in the record book	Description
passed	Mark "PASSED" is assessed answer, revealing a strong knowledge of the basic processes of the subject area being studied, distinguished by the depth and completeness of the topic; mastery of terminology; the ability to explain the essence of phenomena, processes, events, draw conclusions and generalizations, give reasoned answers, give examples; fluency in monologue speech, logic and consistency of response. However, one or two inaccuracies in the answer are allowed.
not accepted	Mark "NOT PASSED" is assessed answer, detecting ignorance processes of the studied subject area, characterized by shallow coverage of the topic; ignorance of the basic issues of theory, unformed skills in analyzing phenomena and processes; inability to give reasoned answers, poor command of monologue speech, lack of logic and consistency. Serious errors in the content of the answer are allowed.

CHECKLIST FOR EXAMINATION PROCEDURE (in case the study of the discipline ends with an exam)

No.	Examination event	Points
1	Test control	10
2	Practical skill	20
3	Ticket (3 questions)	45
4	Situational task	25
Total maximum number of points for the examination procedure:		100

CHECKLIST FOR EXAMINATION PROCEDURE (checklist for the second (commission) retake in case if the study of the discipline ends with a test, a differentiated test, exam)

No.	Examination event	Points
1	Practical skill	15
2	Ticket (3 questions)	60
3	Situational task	25
Total maximum number of points for the examination procedure:		100

