

Federal State Autonomic Educational Institution of Higher Education
«Peoples' Friendship University of Russia»

Medical Institute

Recommended MCSD

ACADEMIC COURSE WORKING PROGRAM

Course name

Pediatrics

Recommended for the direction of training (specialty)

31.05.01 General Medicine

Program (profile, specialization)

General Medicine

1. Aims and objectives of discipline:

Aims of the discipline:

training of qualified doctors with theoretical and practical knowledge, skills and competence in the field of diagnostics, emergency care, management, clinical examination and prevention of the most common diseases in children and adolescents with the capability and willingness for independent professional activity.

Objectives of the discipline:

1. To develop and improve the professional training of doctors in the field of children's and adolescents' health.
2. To develop skills in the field of the latest diagnostic and therapeutic methods and technologies for the improvement of the health of children and adolescents.
3. To prepare doctors with the skills of providing medical care in an outpatient and day hospital setting, emergency care for children and adolescents.
4. To improve the system of general and special knowledge and skills in the field of prevention of diseases in children and adolescents.

2. Place of discipline in the structure of OP HE:

Discipline *Pediatrics* refers to the basic part of the 1st Block of the disciplines (modules).

Table №1 given preceding and following discipline aimed at forming competence discipline in accordance with the matrix competences OP HE.

Preceding and following the discipline aimed at creating competencies

№ п/п	Code and title of competence	Preceding disciplines	Following disciplines
Professional Competences (type of professional activity medical activity)			
1	PC-2 Being able to examine a patient in order to determine a diagnosis	Biology, normal physiology, microbiology, virology, developmental physiology and anatomy, medical enzymology, introduction to nutrition, topographic anatomy, operative surgery, immunology, pathophysiology, clinical pathophysiology, dermatovenereology, neurology, medical genetics, neurosurgery, occupational diseases, general and faculty surgery, obstetrics and gynecology	Polyclinic therapy, hospital, pediatric surgery, urology, oncology, radiation therapy
2	PC-3	Pathological anatomy,	Disaster medicine, hospital

	Being able to prescribe treatment and monitor its efficacy and safety	topographical anatomy, operative surgery, dermatovenereology, neurology, medical genetics, neurosurgery, otorhinolaryngology, ophthalmology, forensic medicine, internal diseases propedeutics, faculty therapy, phthisiology, occupational diseases, general and faculty surgery, dentistry, urology, obstetrics and gynecology.	therapy, oncology, radiation therapy, topical issues of neonatology
3	PC-5 Being able to carry out preventive measures and measures to promote a healthy lifestyle and sanitary and hygiene education among population and monitor their effectiveness	Dermatovenereology, neurology, medical genetics, neurosurgery, ophthalmology, forensic medicine, propedeutics of internal diseases, faculty therapy, occupational diseases, general, faculty surgery, dentistry, obstetrics and gynecology	Disaster medicine, hospital therapy, endocrinology, anesthesiology, resuscitation, intensive care, hospital and pediatric surgery, topical issues of neonatology

3. Requirements to results of development of discipline:

The process of studying the discipline is aimed at the formation of the following competencies:

Competences	Name	Achievement Indicator Code and Name
PC-2	Being able to examine a patient in order to determine a diagnosis	<p>PC-2.1. Mastering the skills to collect complaints, anamnesis of the patient's life and disease, as well as conduct a complete physical examination of the patient (examination, palpation, percussion, auscultation).</p> <p>PC-2.2. Being able to make a preliminary diagnosis and make up a plan of laboratory and instrumental examinations of a patient.</p> <p>PC-2.3. Being able to refer a patient to a laboratory examination in case there are medical indications in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care taking into account the medical care standards.</p> <p>PC-2.4. Being able to refer a patient to an</p>

		<p>instrumental examination in case there are medical indications in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care taking into account the standards of medical care.</p> <p>PC-2.5. Being able to refer a patient to consult with a medical specialist if there is a medical indication in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care taking into account the standards of medical care.</p> <p>PC-2.6. Being able to refer a patient to be provided with specialized medical care in an inpatient setting or in a day hospital in case there are medical indications in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care taking into account the standards of medical care.</p> <p>PC-2.7. Being able to carry out differential diagnosis with other diseases/conditions, including the urgent ones, as well as to make a diagnosis taking into account the current international statistical classification of diseases and problems related to health (ICD).</p>
PC-3	Being able to prescribe treatment and monitor its efficacy and safety	<p>PC-3.1. Being able to develop a treatment plan for a disease or condition taking into account the diagnosis, age and clinical picture in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care taking into account the standards of medical care.</p> <p>PC-3.2. Being able to prescribe medicinal drugs, medical devices and medical nutrition taking into account the diagnosis, age and clinical picture of the disease and in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care taking into account the standards</p>

		<p>of medical care.</p> <p>PC-3.3. Being able to prescribe non-drug treatment taking into account the diagnosis, age and clinical picture of the disease in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care taking into account the standards of medical care.</p> <p>PC-3.4. Being able to assess the efficacy and safety of the use of drugs, medical devices, medical nutrition and other treatment methods.</p>
PC-5	Being able to carry out preventive measures and measures to promote a healthy lifestyle and sanitary and hygiene education among population and monitor their effectiveness	<p>PC-5.1. Being able to organize and conduct medical examinations taking into account age, health status, profession in accordance with applicable legislative acts and other documents.</p> <p>PC-5.4. Being able to carry out follow-up care of patients with diagnosed chronic noncommunicable diseases.</p> <p>PC-5.5. Being able to prescribe preventive measures to patients taking into account risk factors in accordance with the current procedures for the provision of medical care, clinical guidelines (treatment protocols) on the provision of medical care taking into account the standards of medical care.</p> <p>PC-5.6. Being able to monitor observing preventive measures.</p> <p>PC-5.7. Being able to determine medical indications to introduce restrictive measures (quarantine) and indications for referral to a medical specialist in the event of infectious (parasitic) diseases.</p> <p>PC-5.9. Being able to carry out anti-epidemic measures in the event of the occurrence of a focus of infection, including quarantine measures when especially dangerous (quarantine) infectious diseases are detected.</p>

As a result of study of discipline a student must:

Know:

- the principles of the functioning of the body in children and the mechanisms responsible for good-health from the standpoint of the theory of functional systems;
- the modern theories of etiology and pathogenesis of common diseases in children and adolescents;
- the principles of rational nutrition, therapeutic and preventive nutrition; principles of personal hygiene, including a set of measures for hygienic care and childcare;
- the essence of the methods of various functions research in children to assess the state of health, the basic patterns of the development of diseases in children and adolescents;
- the causes, mechanisms of development and manifestations of pathological processes underlying diseases in children and adolescents;
- the etiology, pathogenesis and pathomorphology, leading manifestations, outcomes of the most important and common diseases in children and adolescents;
- the features of the modern manifestations of the clinics and the course of common diseases in children and adolescents;
- the modern principles of treatment of diseases in children and adolescents;
- the methodical bases of medicinal and non-medicinal methods of prevention and treatment of common diseases in children and adolescents;
- the basics of clinical pharmacology of the most common childhood diseases;
- principles of diet therapy, physical therapy and physiotherapy in the treatment of common diseases in children and adolescents.

Be handy at:

- applying the principles of preventive medicine during treatment and preventive measures in children and adolescents;
- giving recommendations on the correction of diseases risk factors in children and adolescents;
- providing emergency medical care such as first pre-hospital medical care in case of emergency conditions in children and adolescents;
- evaluating and explaining of the basic principles of the development and regulation of the physiological functions of children in the process of vital activity;
- evaluating and explaining of the age characteristics of children body and its functional systems;
- using the theoretical foundations of medicinal and non-medicinal methods for prevention and treatment of common diseases in children and adolescents;
- organizing the treatment and diagnostics and the implementation of preventive measures in pediatric clinics and day hospitals;
- developing a healthy lifestyle, following the rules of medical ethics and medical deontology;
- performing a non-instrumental airway clearance techniques and carrying out an indirect heart massage in children and adolescents;
- organizing the prevention of common diseases in children and adolescents;
- conducting of early diagnostics based on clinical symptoms and syndromes, differential diagnosis, assess the severity of neonates condition, determining the indications for hospitalization;
- determining of the amount and sequence of special diagnostic measures at the level of the pediatric polyclinic and day hospital;

- assessing of special diagnostic measures results at the level of a pediatric polyclinic and day hospital;
- drawing up and substantiate a plan of medical measures at the level of a pediatric polyclinic and day hospital;
- understanding the need for the participation of other specialists in the complex treatment of children;
- organizing medical examination, rehabilitation of sick children with common diseases;
- providing emergency medical care in the framework of the basic skills and abilities of pediatric patients with common diseases;

Manage:

- the methods of clinical examination of children, depending on age;
- the interpretation of the laboratory and instrumental diagnostic methods results depending on the age features of children;
- the diagnostic algorithm;
- the main medical diagnostic and therapeutic measures for providing medical assistance to children and adolescents in the clinic and day hospital;
- the main medical diagnostic and therapeutic measures for providing first medical aid in emergency and life-threatening conditions in children and adolescents;
- the correct keeping of medical records.

4. Volume of discipline and types of study

General credit value of the discipline is 9 credit units (324 hours).

Type of study load	Total hours	Semesters		
		9	10	11
Class hours (total)	225	72	85	72
Include:	-	-	-	-
<i>Lectures</i>				
<i>Practical training (PT)</i>	225	72	85	36
<i>Seminars (S)</i>				
<i>Laboratory research (LR)</i>				
Independent work (total)	135	36	59	72
Include:	-	-	-	-
Course work (medical history)				
Intermediate certification	25	10	15	0
Types of indermediate certification - credit - examinations		exam	credit	exam
Total labor input hours	324	108	108	108

Credit Units	9	3	3	3
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5. Content of the discipline

5.1. The content of the discipline sections

1. Growth and development of children

1.1. Introduction to the specialty. Periods of childhood. Physical and sexual development of children. The organization of medical care for children. The subject and tasks of pediatrics. History of Pediatrics. Child morbidity and mortality. Major problems of children's health-care in developed and developing countries. The organization of medical care for children.

Periods of childhood: features, characteristic pathology.

Physical development of children. Factors affecting the growth and development of children. Anthropometry: methodology and assessment. Definition of somatotype and corresponding development. Patterns of physical development. Biological age. Semiotics of physical development disorders: changes in height, body weight, abnormal growth of the head.

Puberty. Evaluation.

1.2. The nervous system, sense organs and neuropsychic development of a child. The development of the nervous system and sensory organs. Anatomical and physiological features of the nervous system and sensory organs and their clinical significance. Methods of objective, laboratory and instrumental examination of the nervous system and sensory organs. Stigmata of disemбриogenesis.

The development of motor activity, motility, reflexes, speech, emotions. Reflexes of newborns. Neuropsychic development of the child. Delayed psychomotor development: causes, examination program.

2. Semiology of childhood diseases

2.1. Semiology of diseases of the skin and subcutaneous fat. Development of skin and subcutaneous fat. Anatomical and physiological features of the skin and subcutaneous fat and their clinical significance. Methods of examination and semiotics of lesions (color, morphological elements, edema). Supportive skin and umbilical wound care of newborns.

2.2. Semiology of diseases of the musculoskeletal system.

The development of the skeletal and muscular system. Anatomical and physiological features of the skeletal and muscular system and their clinical significance. Duration of teething. Methods of objective, laboratory and instrumental examination and semiotics of lesions (impaired muscle tone, arthritis, arthralgia).

2.3. Semiology of diseases of the lymphatic system.

The development of the lymphatic system. Anatomical and physiological features of the organs of the lymphatic system and their clinical significance. Methods of objective, laboratory and instrumental examination and semiotics of lesions (lymphadenopathy, splenomegaly).

2.4. Semiology of respiratory diseases. The development of the respiratory system. Anatomical and physiological features of the respiratory organs and their clinical significance. Methods of objective, laboratory and instrumental examination and semiotics (cough, shortness of breath, obstruction of the upper and lower respiratory tract, respiratory failure). Oxygen therapy in children. Inhalation therapy.

2.5. Semiology of diseases of the cardiovascular system. The development of the organs of the cardiovascular system. Anatomical and physiological features of the organs of the

cardiovascular system and their clinical significance. Blood circulation of the fetus and newborn. The boundaries of relative cardiac dullness, peculiarities of cardiac rhythm, blood pressure indicators in children at different ages. ECG indicators in children of different ages. Methods of objective, laboratory and instrumental examination and semiotics of lesions (heart murmurs, changes in blood pressure).

2.6. Semiology of diseases of the digestive system. The development of the digestive system. Anatomical and physiological features of the digestive organs and their clinical significance. Normal intestinal microflora and its significance. Methods of objective, laboratory and instrumental examination and semiotics of lesions (vomiting and regurgitation syndrome, abdominal pain, hepatomegaly, defecation disorders, coprological syndromes). Functional disorders of the gastrointestinal tract, intestinal colic.

2.7. Semiology of urinary system diseases. The development of the urinary system. Anatomical and physiological features of the urinary system and their clinical significance. Methods of objective, laboratory and instrumental examination and semiotics of lesions (urinary disorders, changes in urinalysis, nephrotic and nephritic syndromes).

2.8. Semiology of diseases of the immune system. The development of organs of the lymphatic and immune system. Anatomical and physiological features of immunity and their clinical significance. Methods of objective, laboratory and instrumental examination and semiotics of lesions (signs of probable immunodeficiency).

2.9. Semiology of diseases of the blood and hematopoietic system. Hematopoiesis in the prenatal and postnatal periods. Peripheral blood and myelogram of a healthy child. Peculiarities of the coagulation system. Methods of objective, laboratory and instrumental examination and semiotics of lesions (increased bleeding, changes in the general clinical blood analysis).

2.10. Semiology of diseases of the endocrine system and metabolism. The development of the organs of the endocrine system. Anatomical and physiological features of the organs of the endocrine system and their clinical significance. Methods of objective, laboratory and instrumental examination and semiotics of lesions. Features and semiotics of metabolic disorders in children.

3. Pediatric nutrition.

3.1. Nutrition of a healthy child. Definitions concerning of nutrition in children. Principles of nutrition in children. Properties and composition of breast milk. The benefits of breastfeeding. The significance of nutrition in the first year of life to the subsequent health of children. Physiology of lactation. Actions and methods that enhance and inhibit breastfeeding. Breast feeding technique. Principles of support for (successful) breastfeeding in the WHO The Baby Friendly Hospital Initiative. Breastfeeding counseling. Contraindications to breastfeeding and early breastfeeding of the child. Causes, signs, prevention and treatment of hypogalactia.

Definition, causes, rules and timing of the introduction of supplementary foods.

Principles of artificial and mixed feeding. Principles of adaptation of instant formulas. Classification of instant formulae.

3.2. Hypotrophy. Protein and energy deficiency. Delay in fetal development. Kwashiorkor. Alimentary marasmus. Malabsorption. Paratropy. Etiology. Pathogenesis. Classification. Clinical picture. Diagnostics. Therapy. Prognosis. Prevention. Long-term complications.

3.3. Disorders of vitamin metabolism. Hypo- and hypervitaminosis. Rickets. Hypervitaminosis D. Etiology. Pathogenesis. Classification. Clinical picture. Diagnostics. Therapy. Prognosis. Prevention. Long-term complications.

4. Neonatology. Diseases of newborns.

4.1. Introduction to Perinatology. Newborn child (Neonates). Basic concepts of neonatology. Perinatal history. Risk groups in newborns.

Anatomical and physiological features and methods of medical examination of a newborn baby.

Adaptation of the newborn (borderline, transient states).

Neonatal screening.

Gestational age and its evaluation. Causes of prematurity, anatomical and physiological features of premature babies. Typical pathology. Features of nursing and feeding premature babies. Complications of prematurity and low birth weight.

4.2. Perinatal asphyxia, hypoxic-ischemic encephalopathy and their complications. Etiology. Pathogenesis. Diagnostic criteria. Classification. Apgar score. Clinical picture. Hypoxic-ischemic encephalopathy (HIE). Sarnat classification. Features of hypoxic brain damage in prematurity (intraventricular hemorrhage, periventricular leucomalacia). Therapy. Primary resuscitation of newborns. Prognosis. Consequences of HIE.

4.3. Birth injury. Etiology. Pathogenesis. Birth injury of the skin and subcutaneous fat, musculoskeletal system, internal organs, central (brain, spinal cord) and peripheral nervous system. Diagnostics. Therapy. Prevention. Prognosis. The complications of perinatal lesions of the nervous system of traumatic genesis.

4.4. Hemorrhagic disease of newborns. Etiology. Pathogenesis. Clinical picture. Diagnostics. Therapy. Prevention. Prognosis.

4.5. Respiratory diseases in newborns. Respiratory distress syndrome of newborns. Bronchopulmonary dysplasia (BPD). Congenital pneumonia. The causes. Frequency. Etiology. Classification. Pathogenesis. Clinical picture. Diagnostic criteria. Differential diagnosis. Therapy. Prevention.

4.6. Neonatal jaundice (hyperbilirubinemia). Peculiarities of bilirubin metabolism in newborns. Indirect hyperbilirubinemia (hemolytic disease of the newborn and other hemolytic anemias, conjugation hyperbilirubinemia) and its complications (kernicterus). Direct hyperbilirubinemia. Protracted jaundice. Etiology. Pathogenesis. Classification. Clinical picture. Diagnostics. Therapy. Prevention. Prognosis.

4.7. Localized purulent-inflammatory diseases of newborns. Clinical forms of localized infections (infections of the skin and subcutaneous fat, omphalitis, conjunctivitis). Predisposing factors. Etiology. Epidemiology. Classification. Pathogenesis. Clinical picture. Diagnostics. Diagnostic criteria. Therapy. Prognosis. Prevention.

4.8. Sepsis of newborns. Predisposing factors. Etiology. Epidemiology. Classification. Pathogenesis. Clinical picture. Diagnostics. Diagnostic criteria. Therapy. Prognosis. Prevention.

4.9. Congenital (intrauterine) infections. Congenital infections: toxoplasmosis, rubella, syphilis, cytomegalovirus and herpes infections. Etiology. Classification. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis. Therapy. Prevention. Prognosis.

4.10. Skin diseases of newborns. Diaper dermatitis. Seborrheic dermatitis. Etiology. Classification. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis. Therapy. Prevention. Prognosis.

5. Pulmonology. Diseases of the respiratory system in children

5.1. Acute bronchiolitis, obstructive bronchitis. Etiology. Pathogenesis. Classification. Clinical picture. Diagnostics. Therapy. Prognosis. Prevention.

5.2. Community-acquired pneumonia. Classification of pneumonia (congenital, community-acquired, nosocomial, ventilation-associated; clinical morphological forms, severity, course, complications). Etiology. Pathogenesis. Clinical picture. Diagnostics. Diagnostic criteria. Complications. Therapy. Prognosis. Prevention.

5.3. Sudden infant death syndrome. Risk factors. Criteria for diagnosis. Urgent Care.

5.4. Differential diagnosis of obstructive diseases of the upper respiratory tract. Acute stenosing laryngotracheitis (viral croup). Epiglottitis. Aspiration of foreign body. Anaphylaxis. Etiology. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis. Therapy. Heimlich's maneuver. Prognosis.

5.5. Chronic lung diseases in children (bronchiectasis and local pneumosclerosis, bronchiolitis obliterans). Etiology. Pathogenesis. Epidemiology. Clinical picture. Diagnostics. Diagnostic criteria. Therapy. Prognosis.

5.6. Hereditary lung disease (cystic fibrosis, primary ciliary dyskinesia, Bruton agammaglobulinemia). Etiology. Pathogenesis. Epidemiology. Clinical picture. Diagnostics. Diagnostic criteria. Therapy. Prognosis.

5.7. Differential diagnosis of chronic cough. Criteria and etiology of chronic cough in children. Foreign body in the bronchi. Aspiration bronchitis. Long bacterial bronchitis. Psychogenic cough.

6. Allergology. Allergic diseases.

6.1. Atopic dermatitis. Etiology. Risk factors. Pathogenesis. "Atopic march." The clinical picture depending on age. Diagnostic criteria. Differential diagnosis (scabies/itch). Therapy. Prevention.

6.2. Allergic rhinitis. Etiology. Pathogenesis. Communication allergic rhinitis and bronchial asthma. Classification. Clinical picture. Diagnostics. Therapy. Prevention.

6.3. Asthma. Etiology. Epidemiology. Pathogenesis. Classification. Clinical picture. Diagnosis in children of different ages. Differential diagnosis. Obstructive bronchitis. S Status Asthmatic. Therapy. Prognosis. Prevention.

6.4. Acute urticaria and angioedema (Quincke's edema). Etiology. Pathogenesis. Clinical picture. Diagnostics. Urgent Care.

6.5. Anaphylactic shock. Etiology. Pathogenesis. Clinical picture. Diagnostics. Urgent Care.

7. Cardiology. Diseases of the cardiovascular system in children.

7.1. Congenital heart defects. Etiology. Epidemiology. Pathogenesis. Classification. Clinical picture. Diagnostics. Therapy. Prognosis. Prevention.

7.2. Infective endocarditis. Etiology. Pathogenesis. Classification. Clinical picture. Diagnostics. Diagnostic criteria. Therapy. Prognosis. Prevention.

7.3. Myocardial diseases. Myocarditis. Cardiomyopathy. Classification. Etiology. Pathogenesis. Clinical picture. Diagnostics. Therapy. Prognosis. Prevention.

7.4. Circulatory failure. Etiology. Pathogenesis. Classification. Clinical picture. Diagnostics. Therapy.

8. Rheumatology. Rheumatic diseases.

8.1. Joint diseases in children. Reactive arthritis. Idiopathic juvenile arthritis. Etiology. Pathogenesis. Classification. Diagnostic criteria. Clinical picture. Differential diagnosis. Therapy. Prevention.

8.2. Rheumatic fever in children. Etiology. Pathogenesis. Classification. Diagnostic criteria. Clinical picture. peculiarities of the current course in children. Differential diagnosis. Therapy. Prevention.

8.3. Diffuse connective tissue disease. Systemic lupus erythematosus, neonatal lupus, juvenile dermatomyositis, systemic scleroderma. Etiology. Classification. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis. Diagnostic criteria. Therapy.

8.4. Systemic vasculitis. Hemorrhagic vasculitis (Schönlein-Henoch disease). Kawasaki disease. Juvenile nodular polyarteritis. Etiology. Classification. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis. Diagnostic criteria. Therapy. Prevention. Prognosis.

9. Gastroenterology. Diseases of the gastrointestinal tract

9.1. Pyloric stenosis and pylorospasm (infant regurgitation). Etiology. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis. Therapy.

9.2. Gastroesophageal reflux disease. Etiology. Pathogenesis. Clinical picture. Extraesophageal manifestations. Diagnostics. Therapy.

9.3. Chronic gastroduodenitis and peptic ulcer. Etiology. The role of infectious agents in development. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis. Functional dyspepsia. Therapy. Prevention.

9.4. Diseases of the gallbladder and biliary tract. Biliary tract dysfunction (biliary dysfunction, biliary dyskinesia). Etiology. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis. Therapy.

9.5. Chronic diarrhea in children. Celiac disease, disaccharidase deficiency, cystic fibrosis, inflammatory bowel disease (ulcerative colitis, Crohn's disease). Irritable bowel syndrome. Etiology. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis. Therapy. Prevention.

10. Nephrology. Diseases of the urinary system in children.

10.1. Urinary tract infection: acute cystitis, acute and chronic pyelonephritis. Etiology. Pathogenesis. Clinical picture. Peculiarities in infants. Diagnosis and differential diagnosis. Therapy.

10.2. Glomerulopathies and glomerulonephritis. Classification. Etiology. Pathogenesis. Clinical picture. Diagnostics. Therapy. Prognosis. Prevention.

10.3. Congenital and hereditary renal diseases. Tubulopathy. Ricket-like diseases. Classification. Etiology. Pathogenesis. Clinical picture. Diagnostics. Therapy. Prevention.

10.4. Nephrotic syndrome. Etiology. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis. Therapy.

10.5. Acute renal failure. Etiology. Classification. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis. Therapy.

10.6. Chronic renal failure. Chronic renal disease. Etiology. Classification. Pathogenesis. Clinical picture. Diagnostics. Therapy.

11. Hematology. Blood disorders in children

11.1. Anemia in children. Iron deficiency condition/state. Iron-deficiency anemia. Folic acid deficiency anemia. Hemolytic anemia. Thalassemia major. Hereditary microspherocytic anemia. Aplastic anemia. Anemia of prematurity. Feto-fetal transfusion. Etiology. Epidemiology. Pathogenesis. Classification. Clinical picture. Diagnostics. Therapy. Prognosis. Prevention. Long-term complications.

11.2. Hemorrhagic diseases. Hemophilia. Immune thrombocytopenia. Thrombocytopathy. Von Willebrand disease. Etiology. Classification. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis. Therapy. Prevention. Prognosis.

11.3. Oncohematological diseases in children. Leukemia. Burkitt's lymphoma. Lymphogranulomatosis. Etiology. Classification. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis (child abuse syndrome). Therapy. Prevention. Prognosis.

12. Endocrinology. Endocrine diseases in children

12.1. Diabetes. Emergency conditions in diabetes mellitus. Complications. Etiology. Classification. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis. Therapy. Emergency treatment. Prevention. Prognosis.

12.2. Diseases of the thyroid gland. Hypothyroidism. Congenital hypothyroidism. Hyperthyroidism. Graves' disease (diffuse toxic goiter). Etiology. Classification. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis. Therapy. Prevention. Prognosis.

12.3. Diseases of the parathyroid glands. Hypoparathyroidism. Di George Syndrome. Etiology. Pathogenesis. Clinical picture. Diagnostics. Therapy. Prognosis.

12.4. Diseases of the adrenal glands. Congenital dysfunction of the adrenal cortex. Etiology. Classification. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis. Therapy. Prognosis.

12.5. Obesity in children. Etiology. Classification. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis. Therapy. Prevention. Prognosis.

12.6. Diseases of the pituitary gland. Hypopituitarism. Somatotropic insufficiency. Etiology. Classification. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis. Therapy.

13. Infectious diseases in children

13.1. Acute respiratory viral infections (influenza, parainfluenza, RSV, adenoviral and other infections). Etiology. Pathogenesis. Epidemiology. The clinical picture depends on the etiology and extent of damage to the respiratory tract. Acute otitis media. Diagnostics. Therapy. Prognosis. Prevention.

13.2. Febrile seizures. Etiology. Predisposing factors. Pathogenesis. Diagnostics. Therapy.

13.3. Viral exanthema: measles, rubella, parvovirus infection. Etiology. Classification. Pathogenesis. Epidemiology. Clinical picture. Complications. Diagnosis and differential diagnosis (Lyme borreliosis, polymorphic exudative erythema). Therapy. Prevention. Prognosis.

13.4. Hemorrhagic fever. Etiology. Classification. Pathogenesis. Epidemiology. Clinical picture. Complications. Diagnosis and differential diagnosis. Therapy. Prevention. Prognosis.

13.5. Whooping cough (Pertussis) and parapertussis. Etiology. Classification. Pathogenesis. Epidemiology. Clinical picture. Diagnosis and differential diagnosis. Diagnostics. Complications. Therapy. Prevention. Prognosis.

13.6. Respiratory mycoplasmosis and chlamydia. Etiology. Classification. Pathogenesis. Epidemiology. Clinical picture. Diagnosis and differential diagnosis. Diagnostics. Therapy.

13.7. Tuberculosis. Etiology. Classification. Pathogenesis. Epidemiology. Clinical picture. Features in childhood. Diagnosis and differential diagnosis. Therapy. Prevention. Prognosis.

13.8. Bacterial meningitis. Meningeal syndrome. Etiology. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis. Therapy.

13.9. Meningococcal infection. Etiology. Classification. Pathogenesis. Epidemiology. Clinical picture. Diagnosis and differential diagnosis. Therapy. Prevention. Prognosis.

13.10. Infectious toxic shock. Etiology. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis. Therapy.

13.11. Acute adrenal insufficiency syndrome in childhood infections. Etiology. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis. Therapy.

13.12. DIC syndrome in childhood infections. Etiology. Classification. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis. Therapy. Prevention. Prognosis.

13.13. Reye's syndrome. Etiology. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis. Therapy. Prevention. Prognosis.

13.14. Tetanus. Etiology. Pathogenesis. Epidemiology. Clinical picture. Diagnosis and differential diagnosis. Therapy. Prevention. Prognosis.

13.15. Malaria. Etiology. Pathogenesis. Epidemiology. Clinical picture. Diagnosis and differential diagnosis. Therapy. Prevention. Prognosis.

13.16. Acute intestinal infections of bacterial etiology (salmonella, escherichiosis, shigellosis, intestinal yersiniosis, cholera, botulism). Gastroenteric syndrome. Distal colitis Syndrome. Toxicosis with exsiccosis. Etiology. Pathogenesis. Epidemiology. Clinical picture. Diagnosis and differential diagnosis. Travelers' diarrhea. Therapy. Prevention. Prognosis.

13.17. Rotavirus infection. Etiology. Pathogenesis. Epidemiology. Clinical picture. Diagnosis and differential diagnosis. Therapy. Prevention. Prognosis.

13.18. Hemolytic uremic syndrome. Etiology. Pathogenesis. Epidemiology. Clinical picture. Diagnosis and differential diagnosis. Therapy.

13.19. HIV infection. Etiology. Classification. Pathogenesis. Epidemiology. Clinical picture. Diagnosis and differential diagnosis. Therapy. Prevention. Prognosis.

13.20. Diphtheria. Etiology. Classification. Pathogenesis. Epidemiology. Clinical picture. Diagnosis and differential diagnosis. Therapy. Prevention. Prognosis.

13.21. Mumps infection. Etiology. Classification. Pathogenesis. Epidemiology. Clinical picture. Diagnosis and differential diagnosis. Therapy. Prevention. Prognosis.

13.22. Herpesvirus infections. Syndrome of an infectious mononucleosis. Herpetic infection. Kaposi's herpetiform eczema. Chicken pox and shingles. Epstein – Barr virus infection. Cytomegalovirus infection. Diseases caused by human herpes viruses 6, 7 and 8 types. Abrupt exanthema (Sudden rash). Etiology. Classification. Pathogenesis. Epidemiology. Clinical picture. Diagnosis and differential diagnosis. Therapy. Prevention. Prognosis.

13.23. Enterovirus infections (Coxsackie, ECHO, poliomyelitis). Etiology. Classification. Pathogenesis. Epidemiology. Clinical picture. Diagnosis and differential diagnosis. Therapy. Prevention. Prognosis.

13.24. Streptococcal infections. Etiology. Classification. Pathogenesis. Epidemiology. Clinical picture. Diagnosis and differential diagnosis. Therapy. Prevention. Prognosis.

13.25. Yersinia infection (intestinal yersiniosis, pseudotuberculosis). Etiology. Classification. Pathogenesis. Epidemiology. Clinical picture. Diagnosis and differential diagnosis. Therapy. Prevention.

14. Emergency Pediatrics

14.1. Sudden death in children and cardiopulmonary resuscitation.

14.2. Emergency conditions accompanied by respiratory failure. Acute bronchiolitis. Viral croup. Epiglottitis. Foreign body aspiration. Bronchial asthma attacks, asthmatic status. Severe, extremely severe, destructive pneumonia. Differential diagnosis and emergency treatment.

14.3. Emergency conditions, accompanied by impaired consciousness and convulsions. Febrile seizures. Meningococcal meningitis. Meningococemia, toxic shock, acute adrenal insufficiency. Neurotoxicosis. Diabetic ketoacidosis. Hypoglycemic coma. Spasmophilia. Differential diagnosis and emergency treatment.

14.4. Emergency conditions for intestinal infections. Toxicosis with exsiccosis. Differential diagnosis and emergency treatment.

14.5. Emergency conditions for somatic diseases. Pyloric stenosis. Hereditary spherocytosis, hemolytic crisis. Acute urticaria. Anaphylactic shock. Dyspnoetic-cyanotic attack accompanying tetralogy of Fallot. Congenital adrenal hyperplasia, salt-wasting type, adrenal crisis. Paroxysmal supraventricular tachycardia.

5.2. Sections of disciplines and types of classes

9th semester

№ п/п	Name of the section of discipline	<i>L</i>	<i>PC</i>	<i>LR</i>	<i>S</i>	Ssgw	Total hours
1.	Growth and development in children		12			4	12
2.	Semiology of pediatric diseases		30			6	40
3.	Pediatric nutrition		12			10	12
4.	Neonatology. Neonatal diseases		18			10	18
5.	<i>Intermediate certification examination</i>					6	6
	Total		72			36	108

10th semester

№ п/п	Name of the section of discipline	<i>L</i>	<i>PC</i>	<i>LR</i>	<i>S</i>	Ssgw	Total hours
1.	Pulmonology. Diseases of the respiratory organs in children.		18			6	24
2.	Allergology. Allergic diseases.		6			8	14
3.	Cardiology. Diseases of the cardiovascular system in children.		12			6	18
4.	Rheumatology. Rheumatic diseases.		12			6	18
5.	Gastroenterology. Diseases of the gastrointestinal tract		12			6	18
6.	Nephrology. Diseases of the renal system in children.		6			6	12
7.	Hematology. Diseases of the blood in children.		10			6	16
8.	Endocrinology. Diseases of the		9			6	15

	endocrine system in children.						
	<i>Intermediate certification credit</i>					6	6
	Total		85			59	144

11th semester

№ п/п	Name of the section of discipline	<i>L</i>	<i>PC</i>	<i>LR</i>	<i>S</i>	Ssgw	Total hours
1.	Infectious diseases in children		24			46	70
2.	Emergency pediatrics		12			20	32
	<i>Intermediate certification examination</i>					6	6
	Total		32			72	108

6. Laboratory training (not provided by the curriculum)

7. Practical training (seminars)

№ п/п	№ discipline section	Themes of practical training (seminars)	Workload (hours)
1.	Growth and development in children Semiology of childhood diseases	The subject and tasks of pediatrics. Periods of childhood: features, characteristic pathology. Physical development of children. Factors affecting the growth and development of children. Anthropometry: methodology and assessment. Definition of somatotype and harmonious development. Patterns of physical development. Biological age. Semiotics of physical development disorders: changes in height, body weight, abnormal growth of the head. The development of the skeletal and muscular system. Anatomical and physiological features of the skeletal and muscular system and their clinical significance. Duration of teething. Methods of objective, laboratory and instrumental examination.	6
2.	Semiology of childhood diseases	Development of skin and subcutaneous fat. Anatomical and physiological features of the skin and subcutaneous fat and their clinical significance. Methods	6

		<p>of examination and semiotics of lesions (color, morphological elements, edema). Supportive skin care and umbilical wound of newborns.</p> <p>The development of the lymphatic system. Anatomical and physiological features of the organs of the lymphatic system and their clinical significance. Methods of objective, laboratory and instrumental examination</p>	
3.	Semiology of childhood diseases	<p>The development of the respiratory system. Anatomical and physiological features of the respiratory organs and their clinical significance. Methods of objective, laboratory and instrumental examination and semiotics of lesions (cough, shortness of breath, obstruction of the upper and lower respiratory tract, respiratory failure).</p> <p>Auscultation of the lungs and heart</p>	6
4.	Semiology of childhood diseases	<p>The development of the organs of the cardiovascular system. Anatomical and physiological features of the organs of the cardiovascular system and their clinical significance. Blood circulation of the fetus and newborn. The boundaries of relative cardiac dullness, peculiarities of cardiac rhythm, blood pressure indicators in children at different ages. ECG indicators in children of different ages. Methods of objective, laboratory and instrumental examination</p> <p>Auscultation of the lungs and heart</p>	6
5.	Semiology of childhood diseases	<p>The development of the digestive system. Anatomical and physiological features of the digestive organs and their clinical significance. Normal intestinal microflora and its values. Methods of objective, laboratory and instrumental examination and semiotics of lesions (vomiting and regurgitation syndrome, abdominal pain, hepatomegaly, defecation disorders, coprological syndromes).</p>	6
6.	Introduction to pediatric diseases	<p>The development of the urinary system. Anatomical and physiological features of</p>	6

		the urinary system and their clinical significance. Methods of objective, laboratory and instrumental examination and semiotics of lesions (urinary disorders, changes in urinalysis, nephrotic and nephritic syndromes).	
7.	Introduction to pediatric diseases	The development of the nervous system and sensory organs. Anatomical and physiological features of the nervous system and sensory organs and their clinical significance. Methods of objective, laboratory and instrumental examination of the nervous system and sensory organs. The development of motor activity, motility, reflexes, speech, emotions. Neonatal reflexes. Neuropsychic development of the child.	6
8.	Introduction to pediatric diseases	The development of the organs of the endocrine system. Anatomical and physiological features of the organs of the endocrine system and their clinical significance. Methods of objective, laboratory and instrumental examination and semiotics of lesions.	4
9.	Introduction to pediatric diseases	Hematopoiesis in the prenatal and postnatal periods. Peripheral blood and myelogram of a healthy child. Peculiarities of the coagulation system. Methods of objective, laboratory and instrumental examination and semiotics of lesions (profuse bleeding, changes in the general clinical blood analysis). The development of organs of the lymphatic and immune system. Anatomical and physiological features of immunity and their clinical significance. Methods of objective, laboratory and instrumental examination	6
10.	Pediatric nutrition	Defining the concerns of nutrition in children. Principles of nutrition in children. Properties and composition of breast milk. The benefits of breastfeeding. The significance of nutrition in the first year of life on subsequent health in children.	4

		<p>Physiology of lactation. Actions and methods that enhance and prevent breastfeeding. Breast feeding technique. Principles of support for (successful) breastfeeding in the WHO Friendly Baby Hospital program. Breastfeeding counseling. Contraindications to breastfeeding and early breastfeeding of the child. Causes, signs, prevention and treatment of hypogalactia.</p> <p>Definition, causes, rules and timing of the introduction of complementary foods.</p> <p>Principles of artificial and mixed feeding. Principles of adaptation of instant formulas. Classification of instant formula.</p>	
11.	Pediatric nutrition	<p>Hypotrophy. Protein and energy deficiency. Delay in fetal development. Kwashiorkor. Alimentary marasmus. Malabsorption. Paratrophy. Etiology. Pathogenesis. Classification. Clinical picture. Diagnostics. Therapy. Prognosis. Prevention. Long-term complications.</p>	4
12.	Pediatric nutrition	<p><i>1.</i> Disorders of vitamin metabolism. Hypo-and hypervitaminosis. Rickets. Hypervitaminosis D. Etiology. Pathogenesis. Classification. Clinical picture. Diagnostics. Therapy. Prognosis. Prevention. Long-term complications.</p>	4
13.	Neonatology. Neonatal diseases	<p>Basic concepts of neonatology. Perinatal history. Risk groups in newborns.</p> <p>Anatomical and physiological features and methods of medical examination of a newborn baby. Adaptation of the newborn (borderline, transient states). Neonatal screening.</p> <p>Gestational age and its evaluation. Causes of prematurity, anatomical and physiological features of premature babies. Typical pathology. Features of nursing and feeding premature babies. Complications of prematurity and low birth weight</p>	4,5
14.	Neonatology. Neonatal diseases	<p><i>2.</i> Perinatal asphyxia, hypoxic-ischemic encephalopathy and their</p>	4,5

		<p>complications. Etiology. Pathogenesis. Diagnostic criteria. Classification. Apgar Scale. Clinical picture. Hypoxic-ischemic encephalopathy (HIE). Sarnat classification. Peculiarities of hypoxic brain damage in prematurity (intraventricular hemorrhage, periventricular leucomalacia). Therapy. Primary resusc. Birth injury. Etiology. Pathogenesis. Birth injury of the skin and subcutaneous fat, musculoskeletal system, internal organs, central (brain, spinal cord) and peripheral nervous system. Diagnostics. Therapy. Prevention. Prognosis. itation of newborns. Prognosis.</p>	
15.	Neonatology. Neonatal diseases	<p>Neonatal jaundice (hyperbilirubinemia). Peculiarities of bilirubin metabolism in newborns. Indirect hyperbilirubinemia (hemolytic disease of the newborn and other hemolytic anemias, conjugation hyperbilirubinemia) and its complications (bilirubin encephalopathy). Protracted jaundice. Etiology. Pathogenesis. Classification. Clinical picture. Diagnostics. Therapy. Prevention. Prognosis. Hemorrhagic disease of the newborn. Etiology. Pathogenesis. Clinical picture. Diagnostics. Therapy. Prevention. prognosis.</p> <p>Respiratory diseases in newborns. Respiratory distress syndrome of newborns. Bronchopulmonary dysplasia (BPD). Congenital pneumonia. The causes. Frequency. Etiology. Classification. Pathogenesis. Clinical picture. Diagnostic criteria. Differential diagnosis. Therapy. Prevention.</p>	4,5
16.	Neonatology. Neonatal diseases	<p>Localized purulent-inflammatory diseases of the newborn. Clinical forms of localized infections (infections of the skin and subcutaneous fat, omphalitis, conjunctivitis). Predisposing factors. Etiology. Epidemiology. Classification. Pathogenesis. Clinical picture.</p>	4,5

		<p>Diagnostics. Diagnostic criteria. Therapy. Prognosis. Prevention. Sepsis of newborns. Predisposing factors. Etiology. Epidemiology. Classification. Pathogenesis. Clinical picture.</p> <p>Diagnostics. Diagnostic criteria. Therapy. prognosis. Prevention. Congenital (intrauterine) infections. Congenital infections: toxoplasmosis, rubella, syphilis, cytomegalovirus and herpes infections. Etiology. Classification. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis. Therapy. Prevention. Prognosis.</p>	
17.	Pulmonology. Diseases of respiratory organs in children.	<p>Acute bronchiolitis, obstructive bronchitis. Etiology. Pathogenesis. Classification. Clinical picture. Diagnostics. Therapy. Prognosis. Prevention.</p> <p>Community-acquired pneumonia. Classification of pneumonia (congenital, community-acquired, nosocomial, mechanical ventilation; clinical morphological forms, severity, course, complications). Etiology. Pathogenesis. Clinical picture. Diagnostics. Diagnostic criteria. Complications. Therapy. Prognosis. Prevention.</p>	6
18.	Pulmonology. Diseases of respiratory organs in children. Emergency pediatrics.	<p>Differential diagnosis of obstructive diseases of the upper respiratory tract. Acute stenosing laryngotracheitis (viral croup). Epiglottitis. Aspiration of foreign body. Anaphylaxis. Etiology. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis. Therapy. Heimlich's maneuver. Prognosis.</p>	6
19.	Pulmonology. Diseases of respiratory organs in children	<p>Chronic lung diseases in children (bronchiectasis and local pneumosclerosis). Etiology. Pathogenesis. Epidemiology. Clinical picture. Diagnostics. Diagnostic criteria. Therapy. Prognosis..</p> <p>Hereditary diseases with lesions of the lungs (cystic fibrosis, primary ciliary dyskinesia). Etiology. Pathogenesis.</p>	6

		Epidemiology. Clinical picture. Diagnostics. Diagnostic criteria. Therapy. Prognosis.	
20.	Allergology. Allergic diseases. Emergency pediatrics	Atopic dermatitis. Etiology. Risk factors. Pathogenesis. "Atopic march." The clinical picture depending on age. Diagnostic criteria. Differential diagnosis (scabies/itch). Therapy. Prognosis. Prevention. Allergic rhinitis. Etiology. Pathogenesis. Communication allergic rhinitis and bronchial asthma. Classification. Clinical picture. Diagnostics. Therapy. Prognosis. Prevention. Bronchial asthma. Etiology. Epidemiology. Pathogenesis. Classification. Clinical picture. Diagnosis in children of different ages. Differential diagnosis. Obstructive bronchitis. Asthmatic status. Therapy. Prognosis. Prevention. Acute urticaria and angioedema. Etiology. Pathogenesis. Clinical picture. Diagnostics. Emergency Care. Anaphylactic shock. Etiology. Pathogenesis. Clinical picture. Diagnostics. Emergency Care.	6
21.	Nephrology. Diseases of the renal system in children	Urinary tract infection: acute cystitis, acute and chronic pyelonephritis. Etiology. Pathogenesis. Clinical picture. Peculiarities in infants. Diagnosis and differential diagnosis. Therapy. Glomerulopathy and glomerulonephritis. Classification. Etiology. Pathogenesis. Clinical picture. Diagnostics. Therapy. Prognosis. Prevention. Nephrotic syndrome. Etiology. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis. Therapy.	6
22.	Cardiology. Diseases of the cardiovascular system in children. Emergency pediatrics.	Congenital heart defects. Etiology. Epidemiology. Pathogenesis. Classification. Clinical picture. Diagnostics. Therapy. prognosis. Prevention. Infective endocarditis. Etiology. Pathogenesis. Classification.	6

		Clinical picture. Diagnostics. Diagnostic criteria. Therapy. Prognosis. Prevention.	
23.	Cardiology. Diseases of the cardiovascular system in children. Emergency pediatrics	Myocardial diseases. Myocarditis. Cardiomyopathy. Classification. Etiology. Pathogenesis. Clinical picture. Diagnostics. Therapy. Prognosis. Prevention. Circulatory failure. Etiology. Pathogenesis. Classification. Clinical picture. Diagnostics. Therapy.	6
24.	Rheumatology. Rheumatic diseases.	Joint diseases in children. Reactive arthritis. Juvenile idiopathic arthritis. Etiology. Pathogenesis. Classification. Diagnostic criteria. Clinical picture. Differential diagnosis. Therapy. Prevention. Rheumatic fever in children. Etiology. Pathogenesis. Classification. Diagnostic criteria. Clinical picture. Peculiarities of the current course in children. Differential diagnosis. Therapy. Prevention.	6
25.	Rheumatology. Rheumatic diseases.	Diffuse connective tissue disease. Systemic lupus erythematosus, juvenile dermatomyositis, systemic scleroderma. Etiology. Classification. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis. Diagnostic criteria. Therapy. Systemic vasculitis. Hemorrhagic vasculitis (Schönlein-Henoch disease). Kawasaki disease. Juvenile nodular polyarteritis. Etiology. Classification. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis. Diagnostic criteria. Therapy. Prevention. Prognosis.	6
26.	Gastroenterology. Diseases of the gastro-intestinal tract.	Pyloric stenosis and pylorospasm (infant regurgitation). Etiology. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis. Therapy. Gastroesophageal reflux disease. Etiology. Pathogenesis. Clinical picture. Extraesophageal manifestations. Diagnostics. Therapy. Chronic gastroduodenitis and peptic ulcer. Etiology. The role of infectious agents in their development. Pathogenesis. Clinical	6

		picture. Diagnosis and differential diagnosis. Functional dyspepsia. Therapy. Prevention.	
27.	Gastroenterology. Diseases of the gastro-intestinal tract.	Diseases of the gallbladder and biliary tract. Biliary tract dysfunction (biliary dysfunction, biliary dyskinesia). Etiology. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis. Therapy. Chronic diarrhea in children. Celiac disease, disaccharidase deficiency. Etiology. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis. Therapy. Prevention	6
28.	Hematology. Diseases of the blood in children. Emergency pediatrics.	Anemia in children. Iron deficiency. Iron-deficiency anemia. Hereditary microspherocytic anemia. Aplastic anemia. Etiology. Epidemiology. Pathogenesis. Classification. Clinical picture. Diagnostics. Therapy. Prognosis. Prevention. Long-term complications	6
29.	Hematology. Diseases of the blood in children	Hemorrhagic diseases. Hemophilia. Immune thrombocytopenia. Thrombocytopathy. Von Willebrand disease. Etiology. Classification. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis. Therapy. Prevention. Prognosis. Oncohematological diseases in children. Leukemia Etiology. Classification. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis Therapy. Prevention. Prognosis	6
30.	Endocrinology. Diseases of the endocrine system in children.	Diabetes. Emergency conditions in diabetes mellitus. Complications. Etiology. Classification. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis. Therapy. Emergency treatment. Prevention. Prognosis.	6
31.	Endocrinology. Diseases of the endocrine system in children . Emergency pediatrics	Diseases of the thyroid gland. Hypothyroidism. Congenital hypothyroidism. Hyperthyroidism. Graves disease (diffuse toxic goiter). Etiology. Classification. Pathogenesis. Clinical picture. Diagnosis and	6

		differential diagnosis. Therapy. Prevention. Prognosis. Diseases of the adrenal glands. Congenital dysfunction of the adrenal cortex. Etiology. Classification. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis. Therapy. Prognosis	
32.	Infectious diseases in children. Emergency pediatrics	Acute respiratory viral infections (influenza, parainfluenza, RSV -, adenoviral and other infections). Etiology. Pathogenesis. Epidemiology. The clinical picture depends on the etiology and extent of damage to the respiratory tract. Acute otitis media. Diagnostics. Therapy. Prognosis. Prevention. Febrile seizures. Etiology. Predisposing factors. Pathogenesis. Diagnostics. Therapy.	2
33.	Infectious diseases in children. Emergency pediatrics	Meningeal syndrome. Bacterial and viral meningitis. Meningococcal infection. Enterovirus infections. Poliomyelitis.	2
34.	Infectious diseases in children	Viral exanthema: measles, rubella, parvovirus infection. Etiology. Classification. Pathogenesis. Epidemiology. Clinical picture. Complications. Diagnosis and differential diagnosis (lime	4
35.	Infectious diseases in children. Neonatology. Neonatal diseases.	Whooping cough (Pertussis), Parapertussis. Etiology. Classification. Pathogenesis. Epidemiology. Clinical picture. Diagnosis and differential diagnosis. Diagnostics. Complications. Therapy. Prevention. Prognosis.	2
36.	Infectious diseases in children	Bacterial meningitis. Meningeal syndrome. Etiology. Pathogenesis. Clinical picture. Diagnosis and differential diagnosis. Therapy. Meningococcal infection. Etiology. Classification. Pathogenesis. Epidemiology. Clinical picture. Diagnosis and differential diagnosis. Therapy. Prevention. Prognosis. Enterovirus infections (Coxsackie, ECHO, poliomyelitis). Etiology. Classification. Pathogenesis.	4

		Epidemiology. Clinical picture. Diagnosis and differential diagnosis. Therapy. Prevention. Prognosis.	
37.	Infectious diseases in children. Emergency pediatrics	Acute intestinal infections of bacterial etiology (salmonella, escherichiosis, shigellosis, intestinal yersiniosis, cholera, botulism). Gastroenteric syndrome. Distal colitis syndrome. Toxicosis with exsiccosis. Etiology. Pathogenesis. Epidemiology. Clinical picture. Diagnosis and differential diagnosis. Travelers' diarrhea. Therapy. Prevention. Prognosis. Rotavirus infection. Etiology. Pathogenesis. Epidemiology. Clinical picture. Diagnosis and differential diagnosis. Therapy. Prevention. Prognosis. hemolytic uremic syndrome. Etiology. Pathogenesis. Epidemiology. Clinical picture. Diagnosis and differential diagnosis. Therapy .. Emergency conditions in intestinal infections. Toxicosis with exsiccosis. Differential diagnosis and emergency treatment.	4
38.	Infectious diseases in children	Diphtheria. Etiology. Classification. Pathogenesis. Epidemiology. Clinical picture. Diagnosis and differential diagnosis. Therapy. Prevention. Prognosis. Mumps infection. Etiology. Classification. Pathogenesis. Epidemiology. Clinical picture. Diagnosis and differential diagnosis. Therapy. Prevention. Prognosis.	2
39.	Infectious diseases in children	Herpesvirus infections. Infectious mononucleosis Syndrome. Herpetic infection. Kaposi's Herpetiform eczema. Chicken pox and shingles. Epstein – Barr virus infection. Cytomegalovirus infection. Diseases caused by human herpes viruses 6, 7 and 8 types. Sudden rash (abrupt exanthema). Etiology. Classification. Pathogenesis. Epidemiology. Clinical picture. Diagnosis and differential diagnosis. Therapy. Prevention. Prognosis.	2

		HIV infection. Etiology. Classification. Pathogenesis. Epidemiology. Clinical picture. Diagnosis and differential diagnosis. Therapy. Prevention. Prognosis.	
40.	Infectious diseases in children	Streptococcal infections. Etiology. Classification. Pathogenesis. Epidemiology. Clinical picture. Diagnosis and differential diagnosis. Therapy. Prevention. Prognosis. Yersinia infection (intestinal yersiniosis, pseudotuberculosis). Etiology. Classification. Pathogenesis. Epidemiology. Clinical picture. Diagnosis and differential diagnosis. Therapy. Prevention. Prognosis.	2
41.	Emergency pediatrics	Sudden death in children and cardiopulmonary resuscitation.	4
42.	Emergency pediatrics	Emergency conditions accompanied by respiratory failure. Acute bronchiolitis. Viral croup. Epiglottitis. Foreign body aspiration. Bronchial asthma attacks, Status asthmatic. Severe, extremely severe, destructive pneumonia. Differential diagnosis and emergency treatment.	4
43.	Emergency pediatrics	Emergency conditions, accompanied by impaired consciousness and convulsions. Febrile seizures. Meningococcal meningitis. Meningococemia, toxic shock, acute adrenal insufficiency. Neurotoxicosis. Diabetic ketoacidosis. Hypoglycemic coma. Spasmophilia. Differential diagnosis and emergency treatment.	4

8. Material and technical support of the discipline:

№ п/п	Address № of classes	Material and technical support
1	Moscow, Miklukho-Maklaya st., 10 k.2 Room № 455 Room № 155	Adult simulator PROFI-1 VSEO-10950900 (Training torso of an adult) Simulator of a young adult PROFI-3 PSEO-10900900 (Training torso of a teenager PROFI) Training defibrillator PROFI-AED-02 (Training electronic simulator) Cabinet for documents A-310, walnut, locked ECG device "KENZ-1203"

		<p>Monitor computerized wearable blood pressure and pulse rate "SOYUZ-DMS" МДП-НС-02</p> <p>Educational posters, moulages and tables;</p> <p>A set of video films (CD, DVD), multimedia presentations;</p> <p>A set of analog and digital radiographs, tomograms</p>
2	<p>Children's Infectious Clinical Hospital №6.</p> <p>Moscow, Bolshaya Akademicheskaya st, d.28-2, room 22 room 36</p>	<p>Classrooms for practical trainings, tests and intermediate certification, storage of educational equipment</p> <p>Photocopier XEROX WC 4118p</p> <p>Asus Laptop K52JU (90N1X36W1714RD13AU) 00000706 from 07/27/11</p> <p>CPU Celeron 2400/256 Mb DDR / GeForce4 MX440 64 / HDD 40Gb 7200 / CD-ROM / LAN / FDD / KB + MOUSE Sch 859</p> <p>Microtek ScanMaker 3600 scanner (tablet)</p> <p>Educational posters, moulages and tables;</p> <p>A set of video films (CD, DVD), multimedia presentations;</p> <p>A set of analog and digital radiographs, tomograms.</p> <p>SCHILLER CARDIOVIT AT-10 electrocardiograph</p> <p>Pulse oximeter NONIN 8500</p> <p>Ultrasonic diagnostic scanner SONOACE X8-RUS with accessories</p> <p>Ultrasonic diagnostic scanner MyLab 70 with accessories</p> <p>Ultrasound MicroMaxx with SonoSite MicroMaxx accessories</p> <p>Dash 4000 Patient Monitor with Accessories</p> <p>Ultrasound device Aplio MX with accessories Aplio MX</p> <p>Holter Monitoring System Schiller AD with accessories</p> <p>Electrocardiograph SCHILLER CARDIOVIT CS-200 with a system of long-term Holter monitoring of blood pressure</p> <p>CARDIOLINE AR 2100 electrocardiograph</p> <p>Patient Monitor IntelliVue model MP20 with accessories</p> <p>Incubator IDN-03-UOMZ</p> <p>Medical suction vacuum ATMOS C451</p> <p>Giraffe Omnibed neonatal resuscitation system with Giraffe Omnibed accessories</p> <p>Phototherapeutic irradiator OFN-02-UOMZ</p> <p>Oximeter cerebral / somatic INVOS 5100C with accessories</p> <p>Neonatal monitor with accessories</p> <p>A device for mechanical ventilation Babylog 8000plus with accessories</p> <p>Mattress for warming children Biotherm 5-U</p> <p>Thermotrib with heating for newborns Babe 12-01</p> <p>Manipulation table 750x580x1020</p> <p>Little mobile procedural table with 3 shelves</p> <p>Scales B1-15 Sasha</p>

		Spirotest Lung Capacity Tester Cot for babies with hood Anesthesiologist's table Baby Sanitation Table Negatoscope 3-films A device AGF-02 (Bilitest) Syringe Pump DSh-08 Inhaler AEROMIST Radiant Heat device A device for the treatment of hypothermia of newborns Kanmed Baby Warmer Complex electroencephalographic MBN 20 with accessories Electronic scales SECA CPU Lenovo M72e Tower (NoneES) 3597CTO Samsung monitor S20B300B Personal Printer Samsung ML-3750ND Projector Canon LV-7260
3	Morozovskaya Children's City Clinical Hospital Moscow, 4 Dobryninsky lane, 1/9 Building 12 1st floor Rooms 1,2,3,4,8,9,18,19,20 2nd floor Room A	Classrooms for practical classes, coursework, monitoring and intermediate certification, storage of educational equipment Photocopier XEROX WC 4118p Monitor 17 "LG Flatron 700B sch.859 17 "Samsung Monitor with 131 Notebook ASUS X50M Dell Latitude D631 Laptop Part 3.95 dated 07.24.09 Overhead- 3-lens projector Medium 536P, Printer HP DJ 5443 Sch.1490 Printer HP LJ 1012 printer c.859 Projector NEC VT59 DVD player DVD BBV DV925HD high resolution, silver System unit Carbon Ai520 i865 P2.4 p. 131 Uninterruptible Power Supply 250 PCM Panasonic system phone, 3 pieces Cabinet d / documents A-310, walnut, locked, 2 pieces Case for clothes A-307 (770*580*2000) walnut Office chair SM-7 CHER, TK 000000000115566 Soft chair 000000000107071 Side table 1166 black (4458), 6 pieces 801-818 training table 1200x500 (Oxford cherry) ldsp 22 mm. 801-818, 10 pieces White magnetic board Exclusive 90x120 cm, 5 pieces Educational posters, moulages and tables; A set of video films (CD, DVD), multimedia presentations; A set of analog and digital radiographs, tomograms.
	Moscow, st. Miklukho-Maklaya	Classrooms for the assessment of term papers, independent study, equipped with computerized equipments and connected to the Internet

d.6 ESILC (Science Library) RUDN	and with access to EIES: Co-working space, Hall №2, Hall №6
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9. Information support of the discipline:

During the entire training period, each student is provided with individual unlimited access to the following electronic library systems:

Databases, reference and search systems:

1. Electronic Library System (ELS) of the RUDN University and third-party ELS, to which university students have access on the basis of concluded contracts:

- Electronic library system of RUDN - ELS RUDN <http://lib.rudn.ru/MegaPro/Web>
- University Library Online <http://www.biblioclub.ru>
- ELS Yurayt <http://www.biblio-online.ru>
- ELS Elibrary <http://elibrary.ru>
- Student Consultant www.studentlibrary.ru
- ELS "Lan" <http://e.lanbook.com/>

2. Databases and search engines:

- search engine Yandex <https://www.yandex.ru/>
- search engine Google <https://www.google.ru/>
- SCOPUS database <http://www.elsevierscience.ru/products/scopus/>
- WHO center <http://whodc.mednet.ru/>

10. Educational and methodical support of the discipline:

a) Main literature

1. Practicum in pediatrics: A manual for students of the 5th year / Edited by D.Yu. Ovsyannikov, M.G. Kantemirova. - M.: RUDN, 2013. - 201 p. - ISBN 978-5-209-05482-5:89.77.

б) Additional literature

1. Pediatric Integrative Medicine: An Emerging Field of Pediatrics, 2015. 1 c. ISBN 9783038420620 URL: <http://books.mdpi.com/pdfview/book/121>

2. Neonatal and Pediatric Cerebro-Cardiopulmonary Resuscitation / Michael Shoykhet [et al.]. 2018. 1 c. ISBN 9782889456598 URL: <https://www.frontiersin.org/research-topics/4942/neonatal-and-pediatric-cerebro-cardio-pulmonary-resuscitation-ccpr>

3. Wynn J.L., Bliss J.M.. The Neonatal Immune System: A Unique Host-Microbial Interface, 2018. 1 c. ISBN 9782889454037 URL: <https://www.frontiersin.org/research-topics/5017/the-neonatal-immune-system-a-unique-host-microbial-interface>

4. Lissauer Tom. Illustrated Textbook of Paediatrics / T. Lissauer, W. Carrol. - Fifth Edition - China : Elsevier, 2017. - 583 p.: il. - ISBN 978-0-7234-3871-7: 6113.30.

5. Soumen Khatua (Ed.), Natasha Pillay Smiley (Ed.). Update in Pediatric Neuro-Oncology, 2019. 1 c. ISBN 9783038975397 URL: <https://www.mdpi.com/books/pdfview/book/1112>.

6. Giovanni Biglino, Adelaide de Vecchi. Ventricular Mechanics in Congenital Heart Disease, 2017. 1 c. ISBN 9782889452644 URL: <http://journal.frontiersin.org/researchtopic/4933/ventricular-mechanics-in-congenital-heart-disease>

7. Tammy M. Brady, Ibrahim F. Shatat. Pediatric Hypertension: Update, 2018. 1 c. ISBN 9782889456543 URL: <https://www.frontiersin.org/research-topics/5269/pediatric-hypertension-update>

8. Stefan J. Friedrichsdorf (Ed.). Pediatric Palliative Care, 2019. 1 c. ISBN 9783038973508 URL: <https://www.mdpi.com/books/pdfview/book/1130>

9. Carlo Caffarelli, Luis Garcia-Marcos, Kostas N. Priftis. The Parallel March of Asthma and Allergy in Childhood: A Multi-Perspective Approach, 2018. 1 c. ISBN 9782889455294 URL: <https://www.frontiersin.org/research-topics/4997/the-parallel-march-of-asthma-and-allergy-in-childhood-a-multi-perspective-approach>

10. Frederick Jeffrey Kaskel, Agnieszka Swiatecka-Urban, Robert P. Woroniecki. Nephrotic Syndrome in Pediatric Patients, 2017. 1 c. ISBN 9782889452989 URL: <https://www.frontiersin.org/research-topics/3714/nephrotic-syndrome-in-pediatric-patients>

11. Guidelines for students on the development of the discipline (module)

For successful mastering of the discipline, students need independent preparation for practical exercises, acquaintance with the recommended basic and additional literature.

To support the educational process and the intensification of independent work of students, an electronic training course "Actual issues of neonatology" is available on in the TEIS, including theoretical material about all sections of the discipline. Questions for self-study are available there too. Access to the e-learning course is possible at any convenient time for the students. Textbooks, educational and methodical manuals of the discipline in electronic form are available on ELS RUDN.

The practical training plan includes:

1. Discussion of the lesson's topic, determination of the amount of knowledge gained by students in self-training and during the study of the Neonatology section of the Pediatrics discipline. An analysis of the most difficult issues of the studied topic carries out.

2. The solution of cases about current topic (case-method). Clinical cases allow the student to demonstrate interactively the knowledge and skills in working with a virtual patient. The student is invited to analyze the clinical situation described in the case and answer all the questions for this case. The student independently determines the patient management in a particular clinical situation and discusses with the teacher and groupmates possible diagnostic algorithms, treatment and prophylaxis. When solving a case, the student must answer the following questions:

For sections 1-2

- 1) Assess the level of development of the child.
- 2) Analyze clinical-anamnestic and / or laboratory-instrumental data.
- 3) Determine the main symptoms / syndromes of the patient.

For sections 3-14

1) Analyze complaints, data of anamnesis, examination, laboratory and instrumental methods of investigation. Highlight the main symptoms and syndromes.

2) Formulate the diagnosis in accordance with the sections of the classification of the International Classification of Diseases.

3) What do you know about the causes, conditions of occurrence and mechanisms of disease development?

4) Determine the diagnostic and therapeutic tactics of patient management.

5) What drug(s) are indicated to treat the patient? Justify.

6) How can the patient / parents / relatives of the patient be trained in case of this disease? List the main preventive measures.

3. Demonstration of patients. During the supervision, a student must understand the skills of dealing with newborns and their parents, collect, analyze and summarize information about the health status of newborns, make a preliminary diagnosis and a final clinical diagnosis based on the obtained data.

4. The current test of knowledge and successful understanding of the discipline is carried out in the form of an oral survey during practical exercises using clinical cases (case method).

The student's out-of-class study allows to master the skills of self-education, self-tutoring, and self-control in preparation for the professional activities of a doctor.

Out-of-class work for the students includes preparation for practical exercises, mastering topics for self-study.

In the process of preparing the coursework (medical history), it is recommended to follow the plan:

1. Passport data.
2. Patient's complaints.
3. Anamnesis (Morbi) of the present disease.
4. Anamnesis (Vitae) of the patient's life.
5. Data of objective examination of the patient.
6. Preliminary diagnosis.
7. Plan and results of additional investigation methods.
8. Differential diagnosis
9. The rationale for the clinical diagnosis.
10. Treatment plan.
11. Diary.
12. Epicrisis.
13. Prognosis.

12. Fund of estimated means for the interim assessment of students in the discipline (module)

Materials for assessing the level of development of educational material of the discipline «Pediatrics» (estimated materials), including a list of competencies, indicating the stages of their formation, description of the indicators and criteria of assessment of competencies at different stages of their formation, the description of the scales of assessment, typical assignments, or other materials needed for the assessment of knowledge, skills and (or) experience activities that characterize the stages of formation of competences in the process of development of educational programs, instructional materials, procedures evaluation of knowledge, skills and (or) experience activities that characterize the stages of formation of competences, fully developed and available to students on the page of discipline in TUIS RUDN.

The program is compiled in accordance with the requirements of the FSES HE.

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