



MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION
Federal state autonomous educational institution
of higher education
«Far Eastern Federal University»
(FEFU)

SCHOOL OF BIOMEDICINE

«AGREED»

Head of education program
«General medicine»



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(Full name)
«09» of July 2019

«APPROVED»

Director of the Department of Clinical
Medicine



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«09» of July 2019



WORKING PROGRAM OF ACADEMIC DISCIPLINE (WPAD)

«Pediatrics»

Educational program
Specialty 31.05.01 «General medicine»
Form of study: full time

year 4,5 semester 8,9,A
lectures 54 hours
practical classes 162 hours
laboratory works not provided
total amount of in-classroom work 216 hours
independent self-work 108 hours
including exam preparation 27 hours
control works ()
credit 8,9 semester
exam 5 year, A semester

The working program is drawn up in accordance with the requirements of the Federal state educational standard of higher education (level of training), approved by the order of the Ministry of education and science of the Russian Federation from 09.02.2016 № 95.

The working program of the discipline was discussed at the meeting of the Department of fundamental and clinical medicine. Protocol No. 8, 09 of July 2019

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Annotation

The discipline "Paediatrics" is part of the basic professional training cycle for students. It is worth 10 credits and comprises of 324 study hours: 54 hours in lectures, 162 hours in practical lessons, 81 independent study hours; additional 27 hours are allocated for exams. The teaching period is Year 4 and 5, Semester 8, 9 and A.

The aim of this discipline is to develop the theoretical and practical knowledge, understanding and skills of diagnostics, medical tactics, clinical screening, preventive healthcare of the most common diseases of children of different age, and the first aid in relation to the nosology of a disease.

Learning objectives:

- Develop an ability to communicate with healthy and sick children and their parents;
- Learn how to obtain objective data when examining children, and interpret the obtained data considering the anatomical and physiological features and age norms;
- Develop practical skills to be able to diagnose the most common disease of children of different age groups, including acute infections and conditions that may threaten child's life;
- Learn the principles of clinical thinking.

Students must know:

- anatomical and physiological characteristics of organs and systems of a healthy child, normal growth and development rates (physical and psychomotor), characteristics of immunity, metabolism and homeostasis of children;
- principles of rational feeding of a healthy and sick child in the first year of life, dietary patterns for children over one year old
- features of etiology, pathogenesis, clinical picture and flow of childhood diseases, including factors contributing to chronic disease and the development of disease complications;

- Principles of first aid under emergency conditions at the prehospital stage.
- principles of the organization and work of pediatric hospitals, prevention of nosocomial infections, creation of favorable conditions for the stay of patients and working conditions of medical personnel;
- principles of organization and direction of work on the formation of a healthy lifestyle of a child and their family;

Students must be able to:

- determine the condition and status of the child: take anamnesis, conduct a survey/interview the child and/or their parents, conduct a physical examination of the child; assess the condition of the child to make a decision about the need of providing medical care;
- establish priorities for treating child's disease under different parameters: a condition with pain, a condition with a chronic disease, a condition with an infectious disease, disability;
- assess the factors affecting the physical and psychological health of children: individual, family, social risk factors (violence, illness and death of relatives, etc.); make a preliminary diagnosis – to systematize information about a child in order to determine the pathology and the causes of it;
- outline the scope of research to clarify the diagnosis and obtain reliable results;
- create an individual treatment plan for a child in relation to their condition: primary care, ambulance, hospitalization;
- formulate a clinical diagnosis;
- develop a plan of therapeutic action, taking into account the course of the disease and its treatment requirements;
- formulate indications for the chosen method of treatment taking into account etiotropic and pathogenetic means; justify pharmacotherapy in a particular child under the main pathological syndromes and emergency conditions; determine the type of administering, regime and dosage of drugs; evaluate the effectiveness and safety of the treatment;

- identify conditions requiring hospitalization and refer patients to appropriate specialists in a timely manner;
- provide emergency care for children.

Student must possess (have thorough knowledge of):

- methods of general clinical examination of children, depending on the age group;
- interpretation of laboratory results, instrumental methods of diagnosis, taking into account the age characteristics of children;
- diagnosis algorithm;
- the main medical diagnostic and therapeutic measures to provide first medical aid in emergency and life-threatening conditions of children;
- correct way of keeping medical records.

Some material can be allocated to independent study, followed by knowledge review in lectures and consolidating this knowledge during practical lessons.

In accordance with the requirements of the Federal State Educational Standards of Higher Education for the discipline 31.05.01. "General Medicine" to the content and level of training of the graduate, after studying the discipline the student must possess the following competencies:

- the readiness for medical use of drugs and other medical substances and their combinations in solving professional problems (GPC – 8)
- the readiness to collect and to analyze patient complaints, data of its history, the results of laboratory, instrumental, postmortem and other examinations to recognize the incidence or the absence of diseases (PC – 5)
- the ability of determining the patient's basic pathological conditions , symptoms, syndromes, diseases in accordance with the International Statistical Classification of Diseases and problems related to health , the 10th review. (PC – 6)
- the ability to determining the tactics of patient surveillance with different nosological entities. (PC – 8)

Following a successful completion of this discipline, the following competences (or elements of competences) are formed in students:

Competency code and formulation	Stages of competence formation	
the readiness for medical use of drugs and other medical substances and their combinations in solving professional problems (GPC – 8)	Know	The principles of modern pharmacotherapy and the management of patients with the most common diseases of internal organs, including emergency care
	Is able to	Carry out the treatment of patients with the most common diseases of the internal organs, including emergency care
	Possess	Modern methods of rational, individualized pharmacotherapy
the readiness to collect and to analyze patient complaints, data of its history, the results of laboratory, instrumental, postmortem and other examinations to recognize the incidence or the absence of diseases (PC – 5)	Know	The basic principles of collection of complaints and anamnesis, results of examination of children and adolescents, interpretation of laboratory results and instrumental examination in order to verify the diagnosis
	Is able to	Evaluate the results of subjective and objective methods of examination of the patient
	Possess	Skills of examination of a sick child (collection of complaints and anamnesis, evaluation of examination results)
the ability of determining the patient's basic pathological conditions, symptoms, syndromes, diseases in accordance with the International Statistical Classification of Diseases and problems related to health, the 10th review. (PC – 6)	Know	The main symptoms, syndromes of diseases of internal organs, nosological forms in accordance with the International Statistical Classification of Diseases
	Is able to	Identify patient's pathological conditions, symptoms, syndromes of diseases of internal organs, nosological forms in accordance with the International Statistical Classification of Diseases and problems related to health.
	Possess	Skills to establish nosological forms in patients in accordance with the International Statistical

		Classification of Diseases on the basis of certain symptoms and syndromes
the ability to determining the tactics of patient surveillance with different nosological entities. (PC – 8)	Know	Principles of etiological, pathogenetic, symptomatic treatment of major diseases of internal organs. Providing emergency aid and emergency care, indications and contraindications for prescribing therapeutic measures, evaluation of treatment results
	Is able to	Assign pathogenetic therapy based on the etiology of the disease
	Possess	Methods of providing medical care

**I. STRUCTURE AND CONTENT OF THE THEORETICAL PART OF THE
COURSE
(54 hours)**

SEMESTER 8

(18 hours, including the use of active learning methods – 4 hours)

Module 1. General questions of the physiology of childhood

Topic 1. Pediatrics as a science. (2 hours. Interactive learning – in-class discussion – 1 hour).

Content: The history of pediatrics. The basic principles of therapeutic and preventive care for children. Organization of inpatient care. Specialized, including high-tech medical care. Periods of childhood. The value of genetic and hereditary factors in childhood pathology. Child and infant mortality rates. Periods of child development.

Topic 2. Physical and neuropsychic development of children. (2 hours).

Content: Definition of concepts of physical development. Methods of studying physical development. Factors affecting the physical development of children. The laws of growth. Pubertal period. Paraphysiological states of pubertal period. Development of statics, motility, psyche and the second signal system in children of early age. Basic reflexes of newborns. Evaluation methods of neuropsychological development of children of early age.

Module 2. Child nutrition issues

Topic 3. Child nutrition I.

(2 hours. Interactive learning – in-class discussion – 1 hour).

Content: Natural feeding. Breastfeeding for children of the first year of life. Nutrition during pregnancy planning, preparation for childbirth and lactation. General biological benefits of breastfeeding. Features of the composition of breast milk. Organization of breastfeeding. Criteria and timing of the introduction of complementary foods.

Topic 4. Child nutrition II (2 hours).

Content: Mixed and artificial feeding of an infant. Definition of concepts, indications for the purpose of these types of feeding. Hypogalactia: causes, lactation stimulation. Classification of adapted milk formulas. Principles of adaptation of cow's milk in the preparation of dairy mixes. Methods for calculating the daily volume of food, the need for basic ingredients for various types of feeding. Organization of rational nutrition of children of different age groups: 1-3 years old, preschool age, students. Medical nutrition.

Topic 5. Constitution anomalies. (2 hours)

Content: The concept of human constitutions, constitutional types and diathesis. Lymphatic-hypoplastic, neuro-arthritic, exudative-catarrhal and allergic diathesis, clinical manifestations, prognosis. Current trends in the prevention of the development of diseases associated with diathesis. Atopic dermatitis in children. Endogenous and exogenous risk factors for the development of atopic dermatitis in children. Classification. Etiopathogenesis. Clinical manifestations. Criteria for the diagnosis of atopic dermatitis. Principles of treatment and prevention.

Topic 6. Rickets and rickets-like diseases in young children. (2 hours).

Content: Etiology and pathogenesis of rickets, features of the clinical picture and course of modern rickets. Differential diagnosis with rickets-like diseases. Principles of treatment and prevention. Hypervitaminosis "D". Spasmophilia.

Topic 7. Chronic nutritional disorders in children (2 hours. Interactive learning – in-class discussion – 1 hour).

Content: Etiology, pathogenesis, proportion of chronic eating disorders in the pathology of children in modern conditions. Characteristics of various forms of trophic disorders. Principles of diet therapy and drug correction.

Topic 8. Anemias of childhood (2 hours. Interactive learning – in-class discussion – 1 hour).

Content: The main groups of anemia. Classification. Deficient anemia. Etiopathogenesis. Clinical manifestations of iron deficiency anemia. Basics of diet and ferrotherapy. Prevention. Dispensary observation.

Module 3. Diseases of the respiratory system in children

Topic 9. Acute diseases of the respiratory system in young children. (2 hours).

Content: Acute and recurrent bronchitis in young children: definition, epidemiology, etiology, pathogenesis, classification, clinical picture of acute (simple, obstructive, bronchiolitis) and recurrent (non-obstructive and obstructive) bronchitis, diagnosis, course, complications, treatment guidelines, outcomes, prevention. Acute pneumonia in young children. Clinical forms, complications, principles of treatment and prevention.

SEMESTER 9.

(18 hours, including the use of active learning methods – 4 hours).

Topic 1. Chronic, congenital and hereditary lung diseases in children. (2 hours).

Content: Chronic bronchitis (CB) and bronchiectasis. Malformations, cystic fibrosis, Catagener syndrome, idiopathic hemosiderosis: definition, epidemiology, etiology, pathogenesis, classification, clinical presentation, diagnosis, course, treatment principles, outcomes, prevention.

Topic 2. Allergic diseases in children (2 hours. Interactive learning – in-class discussion – 1 hour).

Content: Prevalence in childhood, factors contributing to their development, classification, allergy stages. Atopic march. Food allergies. Dermato-allergic. Respiratory allergies. Bronchial asthma. Features of pathogenesis, clinical picture and course in children. Diagnostic criteria. Treatment and prevention of allergic lesions of the respiratory system. Controlled bronchial asthma.

Module 4. Diseases of the cardiovascular system in children

Topic 3. Diseases of organs of the cardiovascular system in children: course features, diagnosis, treatment principles, prevention (2 hours).

Content: Anatomical and physiological features of the circulatory system in children. Classification and diagnosis of diseases of the cardiovascular system in

children of different ages. The concept of acute and chronic cardiovascular insufficiency in children of different ages. Diagnosis and treatment of congenital heart defects in children.

Module 5. Diseases of the digestive system in children

Topic 4. Diseases of the gastrointestinal tract in children: course features, diagnosis, treatment principles, prevention (2 hours. Interactive learning – in-class discussion – 1 hour).

Content: Anatomical and physiological features of digestive organs in children. Classification and diagnosis of gastrointestinal diseases in children of different ages. The main clinical manifestations, diagnosis, administration tactics, prevention of gastritis, gastroduodenitis, chronic nonspecific bowel diseases in children.

Topic 5. Diseases of the biliary system in children. (2 hours. Interactive learning – in-class discussion – 1 hour).

Content: Classification of cholepathy. Functional disorders of the gallbladder and biliary tract: features of clinical manifestations, diagnosis, treatment, depending on the types of functional disorders. Clinical supervision of patients.

Module 6 Diseases of the urinary system in children

Topic 6. Microbial and inflammatory diseases of the urinary system in children. (2 hours).

Content: Anatomical and physiological features of the urinary system in children of different ages. Classification and diagnosis of diseases of the urinary system in children of different ages, prevalence, manifestations. Acute and chronic pyelonephritis. Diagnostic methods at the present stage.

Topic 7. Glomerulonephritis in children (2 hours).

Content: Etiology, pathogenesis, morphological forms of glomerulonephritis in children. Clinical classification, main manifestations, modern methods of diagnosis, treatment directions. Hereditary and congenital kidney disease in children. Acute and chronic renal failure.

Module7. Medical problems of the newborn

Topic 8. Newborn baby. (2 hours).

Content: Physiological and pathological features of the neonatal period. The value of this period in the structure of morbidity and mortality in children of the first year of life. The impact of maternal health, pregnancy and childbirth on the development of the fetus and the health of children. Morphological and functional features of premature babies. Causes of miscarriage. Principles of nursing and feeding the premature babies. Borderline conditions in newborns, especially in premature babies.

Topic 9. Perinatal infections. (2 hours. Interactive learning – in-class discussion – 1 hour)

Content: Definition of the concepts of intrauterine infection and intrauterine infection. The main causes, clinical manifestations, laboratory diagnosis, treatment and prevention of perinatal infections.

SEMESTER A.

(18 hours, including interactive learning – in-class discussion – 4 часа).

Module 8. Somatic diseases of childhood

Topic 1. Rheumatic diseases in children. (2 hours).

Content: The role of streptococcal infection, hereditary predisposition in the etiology of systemic connective tissue diseases in children. Classification. Acute rheumatic fever. Modern view and prevalence in childhood. Features of pathogenesis and clinic. Diagnostic criteria. Juvenile arthritis. Modern concepts of the etiology and pathogenesis of juvenile arthritis. Features of the clinic, diagnostic criteria. Principles of treatment, prognosis. Differential diagnosis of articular syndrome in children.

Topic 2. Endocrine diseases in children. (2 hours. Interactive learning – in-class discussion – 1 hour).

Content: Thyroid diseases. Congenital hypothyroidism, diffuse toxic goiter: etiopathogenesis, clinical presentation, diagnosis, treatment. Diabetes in children

and adolescents. Definition, epidemiology, classification, etiopathogenesis, clinical and laboratory diagnostics, principles of therapy. Complications of diabetes. Chronic complications of diabetes in children and adolescents. Acute complications: hypoglycemic coma, hyperglycemic coma. Principles of development, principles of therapy.

Topic 3. Blood diseases in children. (2 hours).

Content: Hemorrhagic diathesis in children. Hemorrhagic vasculitis: etiopathogenesis, clinic. Differential diagnosis with thrombocytopenic purpura, hemophilia, acute leukemia. Treatment. Prevention.

Module 9. Pediatric Infectious Diseases

Topic 4. Features of the clinic, diagnosis, prevention of acute respiratory viral infections in children (2 hours. Interactive learning – in-class discussion – 1 hour).

Content: The role of infections in the structure of morbidity in children. Modern features of acute respiratory diseases, acute intestinal infections in children, principles of diagnosis, prevention, anti-epidemic measures. Acute toxicosis in children: clinic, emergency care.

Topic 5. Intestinal infections in young children (2 hours).

Content: Etiology, pathogenesis, forms of acute intestinal infections in children. Secretory and invasive variants of infection. Exicosis syndrome. Urgent Care. Principles of treatment of intestinal infections. Rehydration therapy. Prevention.

Topic 6. Meningococcal infection. Neuroinfections in children. (2 hours. Interactive learning – in-class discussion – 1 hour).

Content: Etiology, pathogenesis, clinic, treatment, emergency care for meningococcal infection in children. The prevalence, features of the clinic and diagnosis, prevention of neuroinfections in childhood.

Topic 7. Exantemic infections in children. (2 hours).

Content: Etiology, pathogenesis, clinic, treatment of measles, rubella, scarlet

fever, chicken pox in children. Anti-epidemic measures in the focus of infection, prevention.

Module 10. Outpatient care in childhood

Topic 8. Peculiarities of the work of the district pediatrician (2 hours. Interactive learning – in-class discussion – 1 hour).

Content: Organization of work of the children's polyclinic. Antenatal protection of the fetus. Risk groups of health problems. Observation of healthy children. Vaccine prevention.

Module 11. Emergency conditions in children

Topic 9. Emergency conditions in children, principles of diagnosis, first aid. (2 hours. Interactive learning – in-class discussion – 1 hour).

Content: Diagnostic criteria, emergency care for hyperthermic, convulsive syndrome in children. Infectious-toxic, anaphylactic shock: a clinic of various stages of shock, emergency care. Acute poisoning in children: features of childhood poisoning, major syndromes, laboratory diagnostics, emergency care.

II. STRUCTURE AND CONTENT OF THE PRACTICAL PART OF THE DISCIPLINE. PRACTICAL LESSONS (162 HOURS)

SEMESTER 8.

(54 hours, including interactive learning – 10 hours)

Lesson 1. Introduction to the organization of work of the pediatric department. (6 hours).

Content: Pediatric Department: organization, scope, activities. Diagram of medical history, history of anamnesis collection taken from children and parents. Basic rules for the supervision of sick children in hospitals.

Lesson 2. Methods for assessing the physical and neuropsychic development of young children (4 hours. Interactive learning - working in the simulation center - 2 hours).

Content: Patterns for growth and development of children, methods for

assessing physical development and body proportion in the age aspect. Anatomical and physiological features of young children. Methods of examination of infants and young children. Mastering practical skills on phantoms, exercise machines and simulators.

Lesson 3. Methods for assessing the physical and neuropsychic development of older children. (4 hours. Interactive learning - working in the simulation center - 2 hours).

Content: Anatomical and physiological features and methods of examination of older children. Mastering practical skills on phantoms, exercise machines and simulators.

Lesson 4. Nutrition of a healthy and sick child. (8 hours. Interactive learning - working in the simulation center - 4 hours).

Content: Principles of feeding young children, natural, mixed, artificial feeding. Types and timing of the introduction of complementary foods. Nutrition of older children, principles of organization of therapeutic nutrition. Calculating the needs of children in basic food ingredients.

Lesson 5. Diagnosis and treatment of rickets, spasmophilia, hypervitaminosis D in children. (4 hours).

Content: Anatomical and physiological features of bone tissue in children in the respective age aspect; factors predisposing to rickets, spasmophilia, hypervitaminosis D; pathogenesis of these diseases and conditions; classification; clinical signs of rickets, spasmophilia, hypervitaminosis D in different periods of the disease; clinical manifestations depending on the period of childhood; laboratory and radiological changes in different periods of the disease; differential diagnosis; complications; nonspecific and specific prophylaxis of rickets, taking into account the data of anamnesis - age, course of pregnancy, type of feeding, season, climatic conditions, health status of the child.

Lesson 6. Diagnosis and treatment of atopic dermatitis. Diagnosis of anomalies of the constitution in young children. (8 hours).

Content: Definition and classification of diathesis; pathogenesis of the

development of clinical manifestations of anomalies of the constitution; clinical forms and principles of treatment of anomalies of the constitution; features of the course of diseases arising on the background of diathesis.

Lesson 7. Diagnosis and treatment of chronic eating disorders in young children. (8 hours).

Content: Chronic nutritional disorders. Modern approaches to the classification. Features of the protein-energy deficiency. Diagnosis and treatment of chronic eating disorders in young children.

Lesson 8. Diagnosis and treatment of iron deficiency anemia in young children. (4 hours).

Content: Anatomical and physiological features of the circulatory system and blood formation in children in the age aspect; factors predisposing to iron deficiency anemia; classification; clinical signs of iron deficiency anemia during different periods of the disease; clinical manifestations depending on the period of childhood; laboratory changes in different periods of the disease; differential diagnosis; complications; non-specific and specific prophylaxis taking into account the data of anamnesis - age, course of pregnancy, type of feeding, season, climatic conditions, health status of the child.

Lesson 9. Diagnosis and treatment of acute diseases of the broncho-pulmonary system in young children. (8 hours. Interactive learning - working in the simulation center - 2 hours).

Content: Anatomical and physiological features of the broncho-pulmonary system in young children. Acute bronchitis, features of the course in young children Classification. Treatment. Acute pneumonia. Clinical manifestations, classification. Often sick children. Emergency help with broncho-obstructive syndrome. Clinical analysis of supervised patients.

SEMESTER 9.

(54 hours, including interactive learning – 10 hours)

Lesson 1. Differential diagnosis of diffuse connective tissue lesions in children and adolescents (4 hours).

Content: Etiology, pathogenesis, clinical manifestations of systemic lupus erythematosus, dermatomyositis, systemic scleroderma in children. The diagnostic value of clinical and laboratory data in determining the shape and severity of the disease. The main directions of treatment, prognosis.

Lesson 2. Disorders of growth and sexual development. Obesity. (4 hours).

Content: Etiology, pathogenesis, main clinical manifestations, diagnosis, differential diagnosis, treatment principles, prevention, prognosis.

Lesson 3. Diagnosis and treatment of diabetes (diabetes mellitus – DM) in children. (4 hours. Interactive learning – in-class discussion – 2 hour).

Content: Relevance of the problem. Etiology, pathogenesis of diabetes. Classification of diabetes; the concept of diabetes type 1 and type 2. The main stages of diabetes development (prediabetes, latent, explicit). Diagnosis of diabetes and self-checking. Diagnosis of complications. Features of diet treatment during diabetes. Insulin therapy (main modern pharmacological drugs, and features of their administration).

Lesson 4. Differential diagnosis of hemorrhagic syndrome in children (4 hours).

Content: Propedeutic principles and rules of clinical and paraclinical examination of children with thrombocytopenia, interpretation of the obtained data, features of maintaining a child's medical history. Definition of the disease, etiology, pathogenesis, classification (morphological and pathogenetic forms), clinical manifestations of thrombocytopathy (Glanzmann, Bernard-Soulier, Willebrand disease). Paraclinical examination methods: laboratory (hemogram, myelogram, determination of the duration of bleeding, the study of properties of platelets: adhesion, aggregation; thrombocytogram). Differential diagnosis

between various forms and similar pathology of blood diseases (thrombocytopathy and thrombocytopenia). Principles of treatment of thrombocytopathy in children. Emergency care for bleeding; prognosis for thrombocytopathy in children.

Lesson 5. Diagnosis and treatment of acute leukemia in children (4 hours. Interactive learning – in-class discussion – 2 hour).

Content: General concept of acute leukemia and its prevalence in children. Etiology, pathogenesis, classification, leukemia clinic in children. Diagnosis and differential diagnosis; principles of treatment, emergency care and prevention; forecasting.

Lesson 6. Differential diagnosis, treatment, prevention of acute respiratory viral infections in children (4 hours. Interactive learning – in-class discussion – 2 hour).

Content: Relevance and place of URTI (upper respiratory tract infections) in the structure of childhood morbidity. Clinical variants of the course of the disease, depending on the etiopathogenetic causes. Classification. Complications: croup, neurotoxicosis, febrile seizures, Ray's syndrome, HUS. The basic principles of treatment. Non-specific prophylaxis, vaccine prophylaxis.

Lesson 7. Diagnosis and treatment of acute intestinal infections in children. (4 hours).

Content: The relevance, prevalence and place of acute intestinal infections in the structure of childhood morbidity. Classification of acute intestinal infections depending on the etiological factor. The main clinical syndromes and variants of the disease. Classification of acute intestinal infections by type of diarrhea and diagnostic criteria. Pathogenesis of invasive, secretory, osmotic diarrhea. Dehydration syndrome in children. The basic principles of diagnosis and treatment. Tactics of conducting patients at a pre-hospital stage. Prevention.

Lesson 8. Diagnosis and treatment of meningococcal infection in children. (4 hours. Interactive learning – in-class discussion – 2 hour).

Content: Classification. Clinic of various forms. Differential diagnosis of meningococcal meningitis with purulent meningitis of another etiology, serous

meningitis, meningococemia, sepsis, trypanosomiasis, Dengue fever, yellow fever. Features of meningococcal infection in young children. Clinic and emergency treatment for infectious-toxic shock, cerebral edema, convulsive syndrome.

Lesson 9. Diagnosis and treatment of natural focal infections, helminth infections in children. (4 hours).

Content: General characteristics. Classification. Etiology, epidemiology, pathogenesis, clinic, diagnosis, treatment, prevention, anti-epidemic measures for tick-borne encephalitis, tick-borne borreliosis, tularemia. Classification of parasitic diseases. General features of helminthiasis. Diagnosis of parasitic diseases. Principles of therapy and prevention of parasitosis.

Lesson 10. Diagnosis, treatment, prevention of exanthemic infections in children. (4 hours).

Content: Measles, rubella. Clinic, diagnosis, prevention, organization of quarantine measures, principles of treatment and care, indications for hospitalization. Scarlet fever, chickenpox. Clinic, diagnosis, prevention, organization of quarantine measures, principles of treatment and care, indications for hospitalization.

Lesson 11. Diagnosis and treatment of whooping cough, diphtheria in children. (4 hours).

Content: Whooping cough, parakoklyush. Clinic, diagnosis, prevention, organization of quarantine measures, principles of treatment and care, indications for hospitalization. Diphtheria. Classification, clinic, laboratory diagnostic methods, epidemiological surveillance, preventive measures, measures at the source of infection.

Lesson 12. The organization of work of a district pediatrician (4 hours).

Content: The organization of work of the children's polyclinic. Antenatal protection of fetus. Risk groups of health problems. Observation of healthy children. Vaccine prevention.

Session 13. Diagnostics, first medical aid in case of emergency in children. (4 hours).

Content: Temperature reactions, convulsive syndrome, acute airway obstruction, dehydration, acute allergic reactions (anaphylactic shock, angioedema): clinical manifestations, prehospital medical care, tactics for further management of the patient. The basic principles of pre-hospital cardiopulmonary resuscitation.

Lesson 14. Protecting medical case histories. (Interactive learning - 2 hours).

Content: Series of lessons conclusion. Boundary control. Protection of educational history of the disease.

SEMESTER A.

(54 hours, including interactive learning –54 hours)

Lesson 1. Differential diagnosis of congenital and hereditary lung diseases in children. (4 hours. Interactive learning - 4 hours).

Content: The general concept of hereditary and congenital diseases of the bronchopulmonary system in children, the prevalence among children. The main hereditary diseases with lesions of the broncho-pulmonary system are: cystic fibrosis, Cartagener's syndrome, pulmonary hemosiderosis, Goodpasture's syndrome, Hammen-Rich syndrome, Louis-Bar syndrome, Bruton's disease, α 1-antitrypsin deficiency, Leschke's emphysema, lung lesions in immunodeficient states. The main malformations of the bronchopulmonary system: associated with the underdevelopment of the body or the presence of additional formations, the unusual location of the structures of the lung, localized disorders of the trachea and bronchi, anomalies of the pulmonary vessels. Classification and clinical manifestations of pleurisy in children. Clinical manifestations and criteria for hereditary and congenital diseases of the bronchopulmonary system in children.

Lesson 2. Allergic diseases: atopic dermatitis, urticaria, allergic rhinitis, pollinosis, angioedema, anaphylactic shock. (4 hours. Interactive learning - 4 hours).

Content: Factors predisposing to allergic diseases in children; classification; clinical signs of atopic dermatitis, allergic rhinitis, hay fever, angioedema, anaphylactic shock. Laboratory changes in different periods of the disease; differential diagnosis; complications; non-specific and specific prevention.

Lesson 3. Modern approaches to the diagnosis and treatment of bronchial asthma in children. (4 hours. Interactive learning – in-class discussion – 4 hour).

Content: The definition and classification of Bronchial Asthma; pathogenesis; clinical forms depending on causally significant allergens; basic diagnostic criteria; general principles of treatment and modern methods of laboratory and instrumental examination of the patient. Controlled bronchial asthma.

Lesson 4. Diagnosis and treatment of congenital heart defects in children. (4 hours. Interactive learning - 4 hours).

Content: The main reasons for the formation of congenital heart defects in children. Classification. Clinical manifestations of congenital heart defects with enrichment of the pulmonary circulation. Criteria for severity, prognosis, indications for operational correction. Outcomes.

Lesson 5. Differential diagnosis of arterial hypertension, vegetative dystonia syndrome in children (4 hours. Interactive learning – in-class discussion – 4 hour).

Content: Hypertension in children. Primary and secondary. Causes of occurrence. Clinic. Classification. Diagnostics. Treatment. Emergency care in hypertensive crisis. Vegetative dystonia syndrome. Etiology, clinic, diagnosis. Investigation of the initial vegetative tonus, cardiointervalography, wedge-orthostatic test. Differential diagnosis. Treatment. Outcomes. Cardiopsychoneurosis.

Lesson 6. Diagnosis, differential diagnosis and treatment of diseases of the esophagus, stomach and duodenum. (4 hours. Interactive learning – in-class discussion – 4 hour).

Content: Causes of the formation of chronic diseases of the upper gastrointestinal tract in children of different age groups. The value of infectious and hereditary factors. Features of clinical manifestations of diseases of the stomach and duodenum in children of different ages, diagnosis, differential diagnosis. The main methods of treatment, prevention.

Lesson 7. Differential diagnosis of chronic nonspecific bowel disease in children. (4 hours. Interactive learning - 4 hours).

Content: Etiology. Pathogenesis. Clinical manifestations of ulcerative colitis, granulomatous colitis (Crohn's disease), differential diagnosis. The value of the methods of morphological diagnosis. The basic principles of treatment. Complications. Outcomes.

Lesson 8. Differential diagnosis of diseases of the biliary system in children (4 hours. Interactive learning – in-class discussion – 4 hours).

Content: Causes of formation, prevalence, features of diseases of the biliary system in children: cholecystitis, gallstones, dysfunctions. The main clinical manifestations of functional disorders in the biliary system. Early diagnosis, the basic principles of treatment, prevention.

Lesson 9. Diagnosis of microbial and inflammatory diseases of the urinary system in children. (4 hours. Interactive learning - 4 hours).

Content: Propedeutic principles and rules of clinical and paraclinical examination of children with acquired kidney diseases, interpretation of the data, especially the design of the medical history of a child with acquired diseases of the kidneys, bladder. Definition of the disease, etiology, pathogenesis, classification of pyelonephritis, cystitis. Criteria for the diagnosis of various acquired diseases of the kidneys, bladder.

Lesson 10. Diagnosis of glomerulonephritis in children. AKF, CKD (4 hours. Interactive learning - 4 hours).

Content: Etiology, pathogenesis, classification of glomerulonephritis, tubulointerstitial nephritis. Syndromes. The general concept of acute and chronic kidney failure, their prevalence in children. Causes, risk factors for acute renal

failure, chronic kidney disease. Criteria for the diagnosis of AKF (acute kidney failure), CKD (chronic kidney disease). Principles of emergency and intensive care.

Lesson 11. Organization of care and feeding for newborns. (4 hours. Interactive learning - 4 hours).

Content: Anatomical and physiological features of newborns. Methods of examination of newborns and the rules of supervision of patients. Feeding of full-term and premature newborns. Rules for the care of newborn children. Diagnosis of borderline conditions in newborns, especially in premature babies. Emergency conditions in newborns.

Lesson 12. Differential diagnosis of perinatal nervous system damage in newborns. (4 hours. Interactive learning - 4 hours).

Content: The effect of the pathology of pregnancy and childbirth on the fetus; concepts of hypoxia, asphyxia, intracranial birth injury, their pathogenesis; principles of primary resuscitation (ABC - resuscitation); posindromnaya therapy, prognosis, prevention; classification of perinatal lesions of the nervous system in newborns; criteria for verification of various variants of the nervous system damage in newborns. Hypoxic lesions of the nervous system; risk groups, prognosis. Traumatic lesions of the nervous system; risk groups, prognosis. Toxic - metabolic lesions of the nervous system; risk groups, prognosis. Infectious lesions of the nervous system; risk groups, prognosis.

Lesson 13. Differential diagnosis of jaundice in newborns. (4 hours. Interactive learning - 4 hours).

Content: Features of bilirubin metabolism in the fetus and newborn. Methods for determining the concentration of bilirubin. Hyperbilirubinemia due to hemolysis. HDN Conjugation jaundice. Mechanical jaundice. Hyperbilirubinemia due to combined dysfunction of hepatocytes. Bilirubin encephalopathy and nuclear jaundice in newborns. Diagnosis and treatment. Outcomes. Forecasting.

Lesson 14. Protecting medical case histories. (Interactive learning - 2 hours).

Content: Conclusions. Boundary control. Protection of educational history of the disease.

III. EDUCATIONAL AND METHODOLOGICAL SUPPORT OF INDEPENDENT WORK FOR STUDENTS

Work Program presents the main content of the topics and the evaluation tools: terms and concepts necessary for mastering the discipline.

In the course of mastering the discipline “**Pediatrics**”, the student will have to do a large amount of independent work, which includes preparation for seminars and may include writing an essay.

Practical exercises help students to learn and understand the given material to a greater extent, to acquire the skills of creative writing when analysing/working on documents and primary sources.

The plans of practical lessons, their topics, recommended literature and the learning purposes and objectives are communicated by the teacher at the introduction lessons/lectures, or in the work program of the discipline.

Before proceeding to the study of the topic, it is necessary to familiarize yourself with the basic questions of the practical training plan and the list of recommended literature.

When doing preparation for a practical lesson, it is necessary to, first of all, refer to the lecture notes, sections of textbooks and teaching aids in order to get a general idea of the place and importance of the topic in the discipline that is being studied. Then work with additional literature, make notes on the recommended sources.

In the process of studying the recommended material, it is necessary to understand the construction of the topic that is being studied, to highlight the main points, to follow their logic and thereby to get into the essence of the problem that is being studied.

It is necessary to keep the records of the material studied in different forms,

such as outline/bullet points, which, along with the visual learning, can trigger the motor memory and allow you to accumulate an individual fund of auxiliary materials for a quick repetition of what you had studied before, to mobilize accumulated knowledge. The main forms of writing: a plan (simple and detailed), extracts, theses.

In the process of preparation, it is beneficial to compare and cross-reference the sources, think over the material that is being studied and build an algorithm of actions, carefully considering how you can orally present the material.

During the practical lessons, each participant should be ready to speak about and answer all of the questions posed in the plan. The speech should be convincing and reasoned, and simple reading of the abstract is not allowed. It is important to show your own attitude to what is being said, express your personal opinion, understanding, substantiate it and draw the right conclusions from what has been said. You can refer to notes made during lectures, directly to primary sources, use the knowledge of monographs and publications, facts and observations of modern life, etc.

The educational and methodological support of students' independent work in the discipline "Pediatrics" is presented in Appendix 1 and includes:

- Schedule of completing the independent work for the discipline;
- Types of tasks for independent work for students and methodical recommendations on how to complete them;
- Requirements for the presentation of the results of the independent work;
- Criteria for assessing the performance of the independent work.

IV. CONTROL FOR ATTAINING THE DISCIPLINE'S OBJECTIVES

№	Controlled sections/topics of the discipline	Codes and stages of forming the competences	Means for evaluation		
			Current control	Half-way attestation	
1	Module 1. General questions of the physiology of childhood Module 2. Child nutrition issues Module 3. Diseases of the respiratory system in children Module 4. Diseases of the cardiovascular system in children Module 5. Diseases of the digestive system in children Module 6 Diseases of the urinary system in children Module7. Medical problems of the newborn Module 8. Somatic diseases of childhood Module 9. Pediatric Infectious Diseases Module 10. Outpatient care in childhood Module 11. Emergency conditions in children	the readiness for medical use of drugs and other medical substances and their combinations in solving professional problems (GPC – 8)	Knows	Questionnaire, testing, presentations	Pass/fail exam
			Is able to	Essay	Essay
			possesses	Solving situational questions	Solving situational questions
2	Module 1. General questions of the physiology of childhood Module 2. Child nutrition issues Module 3. Diseases of the respiratory system in children	the readiness to collect and to analyze patient complaints, data of its history, the results of laboratory, instrumental, postmortem and other examinations to recognize the incidence or the absence of diseases (PC – 5)	Knows	Questionnaire, testing, presentations	Pass/fail exam
			Is able to	Essay	Essay
			possesses	Exam	Solving situational questions
3	Module 1. General questions of the physiology of childhood Module 2. Child nutrition issues Module 3. Diseases of the respiratory system in children Module 4. Diseases of the cardiovascular system in children Module 5. Diseases of the digestive system in children Module 6 Diseases of the urinary system in children Module7. Medical problems of the newborn Module 8. Somatic diseases of childhood Module 9. Pediatric Infectious Diseases Module 10. Outpatient care in childhood	ability of determining the patient's basic pathological conditions, symptoms, syndromes, diseases in accordance with the International Statistical Classification of Diseases and problems related to health , the 10th review. (PC – 6)	Knows	Questionnaire, testing, presentations	Pass/fail exam Exam
			Is able to	Essay	Essay
			possesses	Solving situational questions	Solving situational questions

	Module 11. Emergency conditions in children				
4	Module 5. Diseases of the digestive system in children Module 8. Somatic diseases of childhood Module 9. Pediatric Infectious Diseases Module 10. Outpatient care in childhood Module 11. Emergency conditions in children	the ability to determining the tactics of patient surveillance with different nosological entities. (PC – 8)	Knows	Questionnaire, testing, presentations	Pass/fail exam Exam
			Is able to	Essay	Essay
			possesses	Solving situational questions	Solving situational questions

Examination and methodological materials, as well as criteria and indicators necessary for the assessment of knowledge and skills, and the associated stages of the formation of competencies in the process of mastering the educational program are presented in Appendix 2.

V. LIST OF EDUCATIONAL LITERATURE AND INFORMATIONAL-METHODICAL REQUIREMENTS FOR THE DISCIPLINE

Essential Reading

1. Targeted Therapies for Pediatric Central Nervous System Tumors / Springer, Cham 2018 https://link.springer.com/chapter/10.1007/978-3-319-95228-4_33
2. Minimal Change Disease, Pediatric / Springer, Cham 2017 https://link.springer.com/referenceworkentry/10.1007/978-3-319-27334-1_8-1
3. Pediatric Cytopathology / Springer-Verlag Berlin Heidelberg 2017 <https://link.springer.com/book/10.1007/978-3-662-53441-0#editorsandaffiliations>

Supplementary Reading

1. Atlas of Genetic Diagnosis and Counseling / Springer Science+Business Media LLC 2017 <https://link.springer.com/referencework/10.1007/978-1-4939-2401-1#authorsandaffiliationsbook>
2. Inherited Metabolic Diseases / Springer-Verlag Berlin Heidelberg 2017 <https://link.springer.com/book/10.1007/978-3-662-49410-3#editorsandaffiliations>

Regulatory documents:

1. Order of the Ministry of Health of the Russian Federation dated May 10, 2017 No. 203n "On approval of criteria for assessing the quality of medical care.
2. Order of the Ministry of Health of Russia of 01.08.2017 N 484n "On approval of the procedure for forming the list of types of high-tech medical care"

3. "The Constitution of the Russian Federation" (adopted by popular vote on 12/12/1993) (as amended by the laws of the Russian Federation on amendments to the Constitution of the Russian Federation).

4. Federal Law of 29.12.2017 N 465-ФЗ "On Amendments to the Federal Law "On the Basics of the Protection of the Health of Citizens in the Russian Federation"

5. Order of the Ministry of Health of Russia dated 10.08.2017 N 514n "On the Procedure for conducting preventive medical examinations of minors"

8. Federal Law of September 17, 1998 No. 157-ФЗ "On Immunoprophylaxis of Infectious Diseases". (with the subsequent changes and additions)

9. Federal Law of March 30, 1999 N 52-ФЗ "On the Sanitary and Epidemiological Welfare of the Population" (with subsequent amendments and additions)

10. Federal Law of June 18, 2001 N 77-FZ "On the Prevention of the Spread of Tuberculosis in the Russian Federation" (with subsequent amendments and additions)

11. Federal Law of July 10, 2001 N 87-FZ "On Restriction of Smoking of Tobacco" (with subsequent amendments and additions)

12. Federal Law of 12 April 2010 N 61-ФЗ "On Circulation of Medicines".

13. Federal Law of the Russian Federation of November 29, 2010 N 326-ФЗ "On Compulsory Medical Insurance in the Russian Federation".

14. Federal Law of June 30, 2006 N 90-ФЗ. Labor Code of the Russian Federation (with subsequent amendments and additions)

15. Civil Code of the Russian Federation (Part One) of November 30, 1994 N 51-ФЗ. (with the subsequent changes and additions)

16. Civil Code of the Russian Federation (part two) of January 26, 1996 N 14-FZ. (with the subsequent changes and additions)

17. Civil Code of the Russian Federation (part three) of November 26, 2001 N 146-FZ. (with the subsequent changes and additions)

18. Civil Code of the Russian Federation (Part Four) of December 18, 2006 N 230-Φ3. (with the subsequent changes and additions)

19. The family code of the Russian Federation of December 29, 1995 N 223-FZ. (with the subsequent changes and additions)

20. Criminal Code of the Russian Federation of June 13, 1996 N 63-FZ. (with the subsequent changes and additions)

21. Code of the Russian Federation on Administrative Offenses of December 30, 2001 195-Φ3. (with the subsequent changes and additions)

22. Presidential Decree of October 9, 2007 No. 1351, Approving the concept of the demographic policy of the Russian Federation for the period up to 2025.

23. Order of the Ministry of Health and Social Development of the Russian Federation of June 29, 2005 No. 487 “On Approving the Procedure for Organizing the Provision of Primary Health Care”

24. Order of the Ministry of Health and Social Development of the Russian Federation of 01.08.2007, No. 514 “On the Procedure for Issuing Disability Certificates by Medical Organizations”

25. Order of Roszdrav No. 28 of January 18, 2006, “On the Organization of the Activities of a District Pediatrician”

The list of resources of the information-telecommunication network “Internet”

To be provided in due course – before or at the start of lectures.

LIST OF INFORMATION TECHNOLOGIES AND SOFTWARE

The location of the computer equipment on which the software is installed, the number of jobs	List of licensed software
Multimedia auditorium Vladivostok Russian island, Ayaks 10, building 25.1, RM. M723 Area of 80.3 m2 (Room for independent work)	Windows Seven enterprise SP3x64 Operating System Microsoft Office Professional Plus 2010 office suite that includes software for working with various types of documents (texts, spreadsheets, databases, etc.); 7Zip 9.20 - free file archiver with a high degree of data compression; ABBYY FineReader 11 - a program for optical character

	recognition; Adobe Acrobat XI Pro 11.0.00 - software package for creating and viewing electronic publications in PDF; WinDjView 2.0.2 - a program for recognizing and viewing files with the same format DJV and DjVu.
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In order to provide special conditions for the education of persons with disabilities all buildings are equipped with ramps, elevators, lifts, specialized places equipped with toilet rooms, information and navigation support signs.

IV. METHODOLOGICAL RECOMMENDATIONS ON THE COMPLETING THE DISCIPLINE

The purpose of the practical classes is to consolidate the knowledge gained by students in lectures, the modeling of practical situations, and also to test the effectiveness of students' independent work.

Practical lesson usually includes interviewing students for seminars. This allows the teacher to recognize the level of students' knowledge of lecture course materials, basic textbooks, knowledge of current problems and the current situation in the modern educational space. Further, the ability of students to apply their theoretical knowledge to solving practical problems is revealed.

It is advisable to begin the preparation for the practical lesson by repeating the material of the lectures. It should be borne in mind that the lecture course is limited in time and does not allow the lecturer to consider in detail all aspects of the issue being studied. Therefore, it is required to independently expand knowledge of both theoretical and practical nature. At the same time, the lectures provide a good guide for the student to search for additional materials, since they set a certain structure and logic for studying a particular question

When working independently, the student should first of all study the material presented in the recommended literature and / or teacher's educational literature and monographs. It is necessary to draw students' attention to the fact that not only basic textbooks are included in the library list, but also more in-depth sources on each theme of the course. A consistent study of the subject allows the student to form a stable theoretical base.

An important part of the preparation for the practical class is the work of students with scientific and analytical articles that are published in specialized periodicals. They allow you to broaden your horizons and get an idea of current problems, possible ways to solve them and / or trends in the area under study.

The final step of preparing a student for practical training should be the acquaintance with the results of scientific research relevant to each topic.

VII. LIST OF INFORMATION TECHNOLOGIES AND SOFTWARE

The location of the computer equipment on which the software is installed, the number of jobs	List of licensed software
Multimedia auditorium Vladivostok Russian island, Ayaks 10, building 25.1, RM. M723 Area of 80.3 m2 (Room for independent work)	Windows Seven enterprise SP3x64 Operating System Microsoft Office Professional Plus 2010 office suite that includes software for working with various types of documents (texts, spreadsheets, databases, etc.); 7Zip 9.20 - free file archiver with a high degree of data compression; ABBYY FineReader 11 - a program for optical character recognition; Adobe Acrobat XI Pro 11.0.00 - software package for creating and viewing electronic publications in PDF; WinDjView 2.0.2 - a program for recognizing and viewing files with the same format DJV and DjVu.

In order to provide special conditions for the education of persons with disabilities all buildings are equipped with ramps, elevators, lifts, specialized places equipped with toilet rooms, information and navigation support signs.

MATERIAL AND TECHNICAL SUPPORT OF DISCIPLINE

For practical work, as well as for the organization of independent work, students have access to the following laboratory equipment and specialized classrooms that meet applicable sanitary and fire regulations, as well as safety requirements for educational and research and production work:

Name of equipped premises and rooms for independent work	List of basic equipment
Multimedia audience	Multimedia audience Monoblock Lenovo C360G-i34164G500UDK; projection Screen Projecta Elpro Electrol, 300x173 cm; Multimedia projector, Mitsubishi FD630U, 4000 ANSI Lumen 1920 x 1080; Flush interface with automatic retracting cables TLS TAM 201 Stan; Avervision CP355AF; lavalier Microphone system UHF band Sennheiser EW 122 G3 composed of a wireless microphone and receiver; Codec of videoconferencing LifeSizeExpress 220 - Codeconly - Non-AES; Network camera Multipix MP-HD718;

	Two LCD panel, 47", Full HD, LG M4716CCBA; Subsystem of audiocommentary and sound reinforcement; centralized uninterrupted power supply
690922, Primorsky Krai, Vladivostok, island Russian, the Saperny Peninsula, the village of ayaks, 10, RM. M 508A	Accreditation and simulation center: Medical couch (1 PC.) Simulator for auscultation with interactive whiteboard (1 PC.) Dummy for SLS and auscultation (1 PC .) Sam II (1 PC.) Blood pressure monitor (2 PCs) Simulator for auscultation (1 PC .)
690922, Primorsky Krai, Vladivostok, island Russian, the Saperny Peninsula, the village of ayaks, 10, RM. M 508	Scales, medical, floor (1 PC.) Dynamometer Stanovoy (1 PC.) Hand dynamometer (1 PC .) Scales for newborns (1 PC.) Measuring tapes (150x13 mm) Model of the chest and right arm for catheterization of peripheral and Central veins (1 PC.) Hand for injection (3 PCs .) Simulator for I/m injection (1 PC .) Simulator for p / C injection (1 PC .) Peripheral and Central vein catheterization simulator (1 PC .) Hand model for p / C injection (1 PC .) Simulator for testing blood sampling (1 PC.) Blood pressure monitor (2 PCs) Medical hemostatic tourniquet Esmarch Venous hemostatic tourniquet Disposable sheets (for patient care) Containers for medical waste disposal

Clinical bases:

Medical Center of the Federal State Autonomous Educational Institution of Higher Education "Far Eastern Federal University»

1. Medical Center of the Federal State Autonomous Educational Institution of Higher Professional Education "Far Eastern Federal University";
2. State health care institution "Primorsky regional perinatal center"



THE MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN
FEDERATION
Federal State autonomous education institution of higher education
«Far Eastern Federal University»
(FEFU)

SCHOOL OF BIOMEDICINE

**TRAINING AND METHODOLOGICAL SUPPORT FOR THE
INDEPENDENT WORK OF STUDENTS
for the discipline «Paediatrics»
Educational Program 31.05.01 «General Medicine»
Mode of study full time**

**Vladivostok
2016**

Schedule of competition of the independent work on the discipline

№	Date / deadlines	Type of independent work	Estimated time to complete rules (hours)	Form of control
Year 4 Semester 8				
1	Week 2-6	Essay Presentation Literature Review	13 hours	Essay Literature Review
2	Week 7-16	Presentation on the essay	13 hours	Essay Presentation Test
3	Week 17-18	Exam preparation	10 hours	Pass/Fail Exam
Year 5 Semester 9				
1	Week 2-6	Essay Presentation Literature Review	13 hours	Essay Literature Review
2	Week 7-16	Presentation on the essay	13 hours	Essay Presentation Test
3	Week 17-18	Exam preparation	10 hours	Pass/Fail Exam
Year 5 Semester A				
1	Week 2-6	Essay Presentation Literature Review	3 hours	Essay Literature Review
2	Week 7-16	Presentation on the essay	3 hours	Essay Presentation Test
3	Week 17-18	Exam preparation	3 hours	Pass/Fail Exam

Methodical recommendations on writing and presenting an essay

Essay is a creative activity of a student, which reproduces in its structure research activities on solving theoretical and applied problems in a certain branch of scientific knowledge. By virtue of this course work is an important component of the educational process in higher education.

An essay, being a model of scientific research, is an independent work in which a student solves a problem of a theoretical or practical nature, applying the scientific principles and methods of a given branch of scientific knowledge. The result of this scientific search can have not only subjective, but also objective scientific novelty, and therefore can be presented for discussion by the scientific community in the form of a scientific report or a message at a scientific-practical conference, as well as in the form of a scientific article.

An essay involves the acquisition of skills for building business cooperation based on the ethical standards of research. Purposefulness, initiative, disinterested cognitive interest, responsibility for the results of their actions, conscientiousness, competence - personality traits that characterize the subject of research activities corresponding to the ideals and norms of modern science.

An essay is an independent educational and research activity of the student. A teaching assistant assists in a consultative manner and assesses the process and the results of the activity. They provide an approximate topic for the essay, specifies the problem and topic of research with the intern, helps to plan and organize research activities, assigns time and a minimum number of consultations.

A teacher accepts the text of the essay for verification at least ten days before presenting.

Traditionally there was a certain structure of the essay, the main elements of which in order of their location are the following:

1. Title page.
2. Task.
3. Table of Contents
4. List of symbols, symbols and terms (if necessary).

5. Introduction.
6. The main part.
7. Conclusion.
8. References.
9. Appendices.

The title page should include: the name of educational institution, graduating department, author, teacher, research topic, place and year of the essay.

The title of the essay should be as short as possible and fully consistent with its content.

The table of contents (content) reflects the names of the structural parts of the essay and the pages on which they are located. The table of contents should be placed on one page at the beginning of work.

The presence of a detailed introduction is a mandatory requirement for the essay. Despite the small volume of this structural part, its writing causes considerable difficulties. However, it is a qualitatively executed introduction that is the key to understanding the entire work, which testifies to the professionalism of the author.

Thus, the introduction is a very crucial part of the essay. The introduction should start with a justification of the relevance of the chosen topic. As applied to the essay, the concept of "relevance" has one feature. From how the author of the essay can choose a topic and how correctly he understands and evaluates this topic from the point of view of modernity and social significance, characterizes his scientific maturity and professional readiness.

In addition, in the introduction it is necessary to isolate the methodological basis of the essay, to name the authors, whose works constituted the theoretical basis of the study. A review of the literature on the topic should show the author's thorough acquaintance with special literature, his ability to systematize sources, critically examine them, highlight the essential, determine the most important in the current state of knowledge of the topic.

The introduction reflects the importance and relevance of the chosen topic, defines the object and subject, purpose and objectives, and the chronological framework of the study.

The introduction ends with a presentation of general conclusions about the scientific and practical significance of the topic, the degree of its knowledge and sources, and the hypothesis being put forward.

The main part describes the essence of the problem, reveals the topic, determines the author's position, factual material is given as an argument and for illustrations of put forward provisions. The author must demonstrate the ability to consistently present the material while analyzing it simultaneously. Preference is given to the main facts, rather than small details.

The essay ends with the final part, which is called "conclusion". Like any conclusion, this part of the essay serves as a conclusion, due to the logic of the study, which is a form of synthesis accumulated in the main part of scientific information. This synthesis is a consistent, coherent presentation of the results obtained and their relation to a common goal and specific tasks set and formulated in the introduction. It is here that contains the so-called "output" knowledge, which is new in relation to the original knowledge. The conclusion may include suggestions of a practical nature, thereby increasing the value of theoretical materials.

The conclusion of the essay should have: a) presented conclusions of the study; b) theoretical and practical significance, novelty of the essay; c) indication of the possibility of applying the results of the study in practice.

The bibliographic list of references should be placed after conclusion. This list is one of the essential parts of the essay and reflects the independent creative work of the author of the essay.

The list of sources used is placed at the end of the work. It is made in either the alphabetical order (by the name of the author or the name of the book), or in the order in which the references appear in the text of the written work. In all cases, the full title of the work, the names of the authors or the editor of the

publication are indicated if the writing team involved a group of authors, data on the number of volumes, the name of the city and publisher in which the work was published, the year of publication, the number of pages.

Methodical recommendations for the preparation of presentations

For the preparation of the presentation it is recommended to use: PowerPoint, MS Word, Acrobat Reader, LaTeX-bev package. The simplest program for creating presentations is Microsoft PowerPoint. To prepare the presentation, it is necessary to process the information collected while writing the essay.

The sequence of preparation of the presentation:

1. Clearly state the purpose of the presentation.
2. Determine what the presentation format will be: live presentation (then how long it will be) or e-mail (what the presentation context will be).
3. Select the entire content of the presentation and build a logical chain of presentation.
4. Identify key points in the content of the text and highlight them.
5. Determine the types of visualization (pictures) for displaying them on slides in accordance with the logic, purpose and specificity of the material.
6. Choose the design and format the slides (the number of pictures and text, their location, color and size).
7. Check the visual perception of the presentation.

The types of visualization include illustrations, images, charts, tables. The illustration is a representation of a real-life visual. The images - as opposed to illustrations - are a metaphor. Their purpose is to cause an emotion and create an attitude towards it, to influence the audience. With the help of well-designed and presented images, information can remain permanently in a person's memory. Chart - visualization of quantitative and qualitative relationships. They are used for convincing data demonstration, for spatial thinking in addition to the logical one. Table - specific, visual and accurate data display. Its main purpose is to structure

information, which sometimes facilitates the perception of data by the audience.

Practical tips on preparing a presentation

- printed text + slides + handouts are prepared separately;
- slides - a visual presentation of information, which should contain a minimum of text, a maximum of images that carry meaning, to look visually and simply;
- textual content of the presentation - oral speech or reading, which should include arguments, facts, evidence and emotions;
- recommended number of slides 17-22;
- mandatory information for the presentation: the subject, surname and initials of the speaker; message plan; brief conclusions from all that has been said; list of sources used;
- handouts - should provide the same depth and coverage as the live performance: people trust more what they can carry with them than disappear images, words and slides are forgotten, and handouts remain a constant tangible reminder; handouts are important to distribute at the end of the presentation; Handouts should be different from slides, should be more informative.

Evaluation Criteria

The stated understanding of the essay as a holistic copyright text defines the criteria for its evaluation: the novelty of the text; the validity of the choice of source; the degree of disclosure of the essence of the issue; compliance with the requirements for registration.

The novelty of the text: a) the relevance of the research topic; b) novelty and independence in the formulation of the problem, the formulation of a new aspect of the well-known problem in the establishment of new connections (interdisciplinary, intra-subject, integration); c) the ability to work with research,

critical literature, systematize and structure the material; d) the appearance of the author's position, independence of assessments and judgments; e) stylistic unity of the text, the unity of genre features.

The degree of disclosure of the essence of the question: a) the plan compliance with the topic of the abstract; b) compliance with the content of the topic and plan of the abstract; c) completeness and depth of knowledge on the topic; d) the validity of the methods and methods of work with the material; e) the ability to generalize, draw conclusions, compare different points of view on one issue (problem).

The validity of the choice of sources: a) evaluation of the used literature: whether the most famous works on the topic of research are involved (including recent journal publications, recent statistics, summaries, references, etc.).

Compliance with the requirements for registration: a) how correctly the references used in the literature are presented; b) assessment of literacy and presentation culture (including spelling, punctuation, stylistic culture), knowledge of terminology; c) compliance with the requirements for the volume of the abstract.

Topics of essays and presentations

1. Diagnosis of immunodeficiency states.
2. Diagnosis of hemoglobinopathies.
3. Diagnosis of tubulopathy.
4. Standards for the diagnosis and treatment of hereditary hemolytic anemia.
5. Arterial hypertension in children and adolescents. Standards of diagnosis and treatment.

Differential diagnosis of diseases occurring with exanthema.

6. Diagnosis of intrauterine infection
7. Predosological diagnostics, methods.
8. Sanogenesis.
9. The concept of the functional reserves of the body.

10. Seasonal and age-related changes in the condition of children and adolescents of school age.

11. Non-traditional tempering.

12. The concept is a healthy child.

13. Premorbid conditions in children.

14. The level of health of the child and the assessment of health status.

15. Criteria for assessing the health of the child.

16. Health groups.

17. Risk factors affecting the health of children of different age groups.



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SCHOOL OF BIOMEDICINE

FUND OF THE ASSESSMENT TOOLS

«Paediatrics»

Educational Program 31.05.01 «General Medicine»

Mode of study full time

Vladivostok

2016

Passport of the Fund Assessment Tools

is filled in accordance with the Regulations on the Funds of Evaluation Tools of Educational Programs of Higher Education - Bachelor's Programs, Specialties, FEFU Magistrates, approved by order of the Rector on 12/05/2015 No. 12-13-850.

Competency code and formulation	Stages of competence formation	
the readiness for medical use of drugs and other medical substances and their combinations in solving professional problems (GPC – 8)	Know	The principles of modern pharmacotherapy and the management of patients with the most common diseases of internal organs, including emergency care
	Is able to	Carry out the treatment of patients with the most common diseases of the internal organs, including emergency care
	Possess	Modern methods of rational, individualized pharmacotherapy
the readiness to collect and to analyze patient complaints, data of its history, the results of laboratory, instrumental, postmortem and other examinations to recognize the incidence or the absence of diseases (PC – 5)	Know	The basic principles of collection of complaints and anamnesis, results of examination of children and adolescents, interpretation of laboratory results and instrumental examination in order to verify the diagnosis
	Is able to	Evaluate the results of subjective and objective methods of examination of the patient
	Possess	Skills of examination of a sick child (collection of complaints and anamnesis, evaluation of examination results)
the ability of determining the patient's basic pathological conditions, symptoms, syndromes, diseases in accordance with the International Statistical Classification of Diseases and problems related to health , the 10th review. (PC	Know	The main symptoms, syndromes of diseases of internal organs, nosological forms in accordance with the International Statistical Classification of Diseases
	Is able to	Identify patient's pathological conditions, symptoms, syndromes of diseases of internal organs, nosological forms in accordance with the International Statistical Classification of Diseases and problems related to health.

- 6)	Possess	Skills to establish nosological forms in patients in accordance with the International Statistical Classification of Diseases on the basis of certain symptoms and syndromes
the ability to determining the tactics of patient surveillance with different nosological entities. (PC – 8)	Know	Principles of etiological, pathogenetic, symptomatic treatment of major diseases of internal organs. Providing emergency aid and emergency care, indications and contraindications for prescribing therapeutic measures, evaluation of treatment results
	Is able to	Assign pathogenetic therapy based on the etiology of the disease
	Possess	Methods of providing medical care

CONTROL FOR ATTAINING THE DISCIPLINE'S OBJECTIVES

№	Controlled sections/topics of the discipline	Codes and stages of forming the competences	Means for evaluation		
			Current control	Half-way attestation	
1	Module 1. General questions of the physiology of childhood Module 2. Child nutrition issues Module 3. Diseases of the respiratory system in children Module 4. Diseases of the cardiovascular system in children Module 5. Diseases of the digestive system in children Module 6 Diseases of the urinary system in children Module7. Medical problems of the newborn Module 8. Somatic diseases of childhood Module 9. Pediatric Infectious Diseases Module 10. Outpatient care in childhood Module 11. Emergency conditions in children	the readiness for medical use of drugs and other medical substances and their combinations in solving professional problems (GPC – 8)	Knows	Questionnaire, testing, presentations	Pass/fail exam
			Is able to	Essay	Essay
			possesses	Solving situational questions	Solving situational questions
2	Module 1. General questions of the physiology of childhood Module 2. Child nutrition issues Module 3. Diseases of the respiratory system in children	the readiness to collect and to analyze patient complaints, data of its history, the results of laboratory, instrumental, postmortem and other examinations to recognize the incidence or the absence of diseases	Knows	Questionnaire, testing, presentations	Pass/fail exam
			Is able to	Essay	Essay
			possesses	Exam	Solving situational questions

		(PC – 5)			
3	Module 1. General questions of the physiology of childhood Module 2. Child nutrition issues Module 3. Diseases of the respiratory system in children Module 4. Diseases of the cardiovascular system in children Module 5. Diseases of the digestive system in children Module 6 Diseases of the urinary system in children Module 7. Medical problems of the newborn Module 8. Somatic diseases of childhood Module 9. Pediatric Infectious Diseases Module 10. Outpatient care in childhood Module 11. Emergency conditions in children	ability of determining the patient's basic pathological conditions, symptoms, syndromes, diseases in accordance with the International Statistical Classification of Diseases and problems related to health , the 10th review. (PC – 6)	Knows	Questionnaire, testing, presentations	Pass/fail exam Exam
			Is able to	Essay	Essay
			possesses	Solving situational questions	Solving situational questions
4	Module 5. Diseases of the digestive system in children Module 8. Somatic diseases of childhood Module 9. Pediatric Infectious Diseases Module 10. Outpatient care in childhood Module 11. Emergency conditions in children	the ability to determining the tactics of patient surveillance with different nosological entities. (PC – 8)	Knows	Questionnaire, testing, presentations	Pass/fail exam Exam
			Is able to	Essay	Essay
			possesses	Solving situational questions	Solving situational questions

The scale of assessment of the level of formation of competencies

Code of competence	Stages of competence formation		Criteria	Indicators	Points / Marks
the ability of determining the patient's basic pathological conditions, symptoms, syndromes, diseases in accordance with the International Statistical Classification of Diseases and problems related to health , the	Knows	The main symptoms, syndromes of diseases of internal organs, nosological forms in accordance with the International Statistical Classification of Diseases	Knowledge of the standards of care in pediatrics in accordance with the International Statistical Classification of Diseases	Knows ICD-10 and standards of care in pediatrics	65-71
	Is able to	Identify patient's pathological conditions, symptoms, syndromes of	Assessment of the main syndromes of diseases of internal organs, nosological forms in accordance with the	Is able to identify and evaluate patients for pathological conditions, symptoms, syndromes of	71-84

10th review. (PC – 6)		diseases of internal organs, nosological forms in accordance with the International Statistical Classification of Diseases and problems related to health.	International Statistical Classification of Diseases; work with educational, scientific, regulatory and reference books	diseases of internal organs, nosological forms in accordance with ICD-10	
	Possesses	Skills to establish nosological forms in patients in accordance with the International Statistical Classification of Diseases on the basis of certain symptoms and syndromes	Mastering the skill of assessing the main syndromes of internal diseases, nosological forms in accordance with the International Statistical Classification of Diseases	Ready and able to identify patients with pathological conditions, symptoms and disease syndromes	85-100
the readiness to collect and to analyze patient complaints, data of its history, the results of laboratory, instrumental, postmortem and other examinations to recognize the incidence or the absence of diseases (PC – 5)	Knows	The basic principles of collection of complaints and anamnesis, results of examination of children and adolescents, interpretation of laboratory results and instrumental examination in order to verify the diagnosis	Knowledge of the principles of the collection of complaints and anamnesis, the results of examination in children and adolescents, the interpretation of the results of laboratory and instrumental examination in order to verify the diagnosis	Knows the basic principles of the collection of complaints and anamnesis, the results of examination in children and adolescents	65-71
	Is able to	Evaluate the results of subjective and objective methods of examination of the patient	Evaluation of the results of examination, laboratory, instrumental, pathological and other studies	Ability and willingness to evaluate the results of subjective and objective methods of examination of the patient	71-84
	Possesses	Skills of examination of a sick child (collection of complaints and anamnesis, evaluation of examination results)	Thorough knowledge of the methodology for collecting and analyzing patient complaints, his medical history, examination results	Knows the methodology for conducting a full examination of a sick child and evaluating the results	85-100

the ability to determining the tactics of patient surveillance with different nosological entities. (PC – 8)	Knows	Principles of etiological, pathogenetic, symptomatic treatment of major diseases of internal organs. Providing emergency aid and emergency care, indications and contraindications for prescribing therapeutic measures, evaluation of treatment results	Knowledge of the principles of management of patients with various nosological forms	Knows the basic principles of etiological, pathogenetic, symptomatic treatment of major diseases of internal organs.	65-71
	Is able to	Assign pathogenetic therapy based on the etiology of the disease	Evaluation and ability to carry out pathogenetic therapy, taking into account the etiology of the disease	Is able to determine the tactics of managing patients with various nosological forms	71-84
	Possesses	Methods of providing medical care	Possession of skills in providing medical care	Possesses the skill of managing patients with various nosological forms.	85-100
the readiness for medical use of drugs and other medical substances and their combinations in solving professional problems (GPC – 8)	Knows	The principles of modern pharmacotherapy and the management of patients with the most common diseases of internal organs, including emergency care	Knowledge of the main indications for the use of drugs and other substances and their combinations in solving professional problems	Formed and structured knowledge of the principles of modern pharmacotherapy	

	Is able to	Carry out the treatment of patients with the most common diseases of the internal organs, including emergency care	Organization of treatment of sick children with the most common diseases of internal organs	Ready and able to apply methods of treatment of patients with the most common diseases of internal organs	
	Possesses	Modern methods of rational, individualized pharmacotherapy	The skill of the algorithm is the use of drugs and other substances.	Owens modern methods of rational, individualized pharmacotherapy	

Evaluation tools for intermediate certification

Questions for the pass/fail exam (Semesters 8, 9)

Exemplar Pass/fail exam questions

1. Organization of medical care for newborns. Physiology and pathology of the newborn. Features of the adaptation period. Border conditions of newborns. Features of the adaptation period in premature and low birth weight babies.
2. Formation of biocenosis in the neonatal period. Dysbacteriosis. Enterocolitis, candidosis in newborns.
3. Bilirubin metabolism in the neonatal period. Differential diagnosis of jaundice in newborns. Fetal hepatitis.
4. Hypoxia of the fetus and newborn. Resuscitation and intensive care of newborns.
5. Respiratory distress syndrome in newborns. Help organization. Algorithm action. Features of the course of RDS in newborns.
6. Perinatal CNS lesions in newborns. Hypoxic and traumatic injuries of the central nervous system. Classification, clinic, diagnosis, treatment. Differential diagnosis. Features clinic hypoxia and birth trauma in premature babies.
7. Meningitis in newborns. Etiology, diagnosis, treatment. Principles of antibiotic therapy.
8. Purulent-inflammatory diseases of newborns: local infections, sepsis. Features of purulent-inflammatory diseases in premature babies.
9. Hemostasis in the neonatal period. Differential diagnosis of hemorrhagic syndrome in newborns. Therapy.
10. Anemia in newborns. Differential diagnosis of anemia. Hemolytic disease of the newborn. Diagnosis, treatment. Edematous syndrome in newborns.
11. Fetal infections of the fetus and newborn. Diagnosis, differential diagnosis, treatment principles. Evidence of laboratory tests and modern high-tech methods for the diagnosis of IUI.
12. Syndromes of vomiting and regurgitation. Causes, clinic, treatment principles. Postural therapy. Anti-reflux mixtures.

13. Physiology and pathology of premature babies. Differentiated criteria for assessing preterm and gestational age. Differentiated nursing programs for premature and low birth weight babies. Features of pharmacotherapy in premature babies.

14. Infusion therapy and parenteral nutrition in the neonatal period. Features of pharmacotherapy in term and preterm infants.

15. Metabolic adaptation of newborns, its disorders and methods of correction.

16. Anomalies of the constitution. Exudative-catarrhal diathesis, allergic diathesis, lymphatic-hypoplastic diathesis. Neuro-arthritic diathesis. Diagnostics. Clinic. Treatment, prevention.

17. Diet. Breastfeeding, its role in shaping health. Documents WHO and UNESCO. Mixed feeding, artificial feeding. Chronic eating disorders. Hypotrophy, paratopia, hypovitaminosis. Diagnosis, treatment, prevention. Principles of clinical nutrition.

18. Physical and neuropsychic development of children. Evaluation of development. Evaluation methods. Prevention of abnormalities.

19. Rachitis, rickets-like diseases. Diagnosis, treatment, prevention of rickets. Differential diagnosis of rickets-like diseases, treatment, prevention. Hypervitaminosis D. Spasmophilia.

20. Anemia. Classification. Deficient anemia. Diagnosis, treatment, prevention. Differential diagnosis with immune deficiency. Hemolytic anemia.

21. Hemorrhagic diathesis. Differential diagnosis of diseases involving bleeding: thrombocytopenic purpura, hemorrhagic vasculitis, hemophilia. Treatment. Leukemia and hypoplastic anemia in young children.

22. Diseases of the respiratory system. Acute respiratory infections, differential diagnosis. Treatment, prevention. Rehabilitation of frequently ill children. Laryngotracheitis, classification, diagnosis, treatment. Obstructive bronchitis and bronchiolitis, differential diagnosis. Treatment, prevention. Pneumonia. Classification, diagnosis, treatment, prevention. Differential diagnosis.

Toxic pneumonia, intensive care. Respiratory failure. Respiratory allergies. Hereditary diseases of the lungs. Features manifestations in childhood.

23. Purulent-inflammatory skin diseases. Atopic diseases. Children's eczema, atopic dermatitis. Diagnosis, treatment, prevention, differential diagnosis. Respiratory allergies. Differential diagnosis. Specific desensitization. Social aspects of atopic diseases.

24. Endocrine pathology in young children. Hypothyroidism, hypoparathyroidism. Adrenogenital syndrome. Features of clinical manifestations, diagnosis, differential diagnosis. Treatment, prognosis.

25. Features of water-electrolyte homeostasis in young children. Types and types of dehydration. Toxicosis with exsiccosis. Degree of dehydration. Clinic, therapeutic measures. Methods of restoring homeostasis of water and electrolytes.

26. Hereditary diseases. Aminoacidopathy. Pathology of ammonia metabolism. Hereditary disorders of carbohydrate and lipid metabolism. Dyslipoproteinemia. Disorders of purine exchange. Diagnostics, screening methods, treatment.

27. Diseases of the gastrointestinal tract. Malformations. Stomatitis. Diagnosis, treatment, prevention. Pylorospasm, pyloric stenosis, differential diagnosis, treatment. Gastroenterocolitis of various etiologies. Differential diagnosis, treatment. Syndrome of impaired intestinal absorption. Constipation. Clinic, treatment, prevention. Dysbacteriosis. Classification, diagnosis, clinic, treatment, prevention, association with immune deficiency.

28. Anatomical and physiological features of the kidneys in young children. Features of the course of kidney disease. Pyelonephritis. Glomerulonephritis. Classification, diagnosis, clinic, treatment, differential diagnosis. Dysmetabolic disorders, congenital anomalies, screening tests. Renal failure. Hemolytic uremic syndrome.

29. Tubulopathy in young children. Tubulopathies with polyuria syndrome, acidosis, nephrolithiasis, and rickets-like syndrome. Features of the clinic, diagnosis, differential diagnosis. Modern approaches to therapy.

30. Diseases of the cardiovascular system. Congenital heart defects. Classification, diagnosis, clinic, treatment, differential diagnosis. Infectious endocarditis. Non-rheumatic carditis. Clinic, treatment. MARS. Heart failure.

31. Diffuse diseases of the connective tissue in young children. Systemic vasculitis. Juvenile rheumatoid arthritis. Features of the course in young children. Differential diagnosis. Modern approaches to therapy.

32. Structure, principles of organization and the main tasks of cardiac care for children. Methods of modern examination of a child / teenager with a pathology of the cardiovascular system. Functional tests of the cardiovascular system, methods for children and adolescents, evaluation of results.

33. Heart rhythm disorders in children and adolescents. Mechanisms of occurrence. Impaired automatism, excitability, conduction. Extrasystole. Atrioventricular block. Atrial fibrillation. Paroxysmal tachycardia. Clinical picture. Features manifestations in adolescents. ECG signs. Differential diagnosis. Treatment. Forecast.

34. Cardiomyopathy. Myocardial dystrophy. Classification. Clinical manifestations, diagnosis. Features manifestations in adolescents. Treatment, prevention. Clinical examination.

35. Syndrome of vegetative dystonia in children and adolescents. Predisposing factors. Clinical manifestations. Differential diagnosis. The value of determining the vegetative status. Features of the vegetative status in adolescence. KOP VEM Medicinal tests, indications for their use. Emergency care for vegetative crises. Functional cardiopathy (mitral valve prolapse, ST-T abnormalities, WPW phenomenon, atrioventricular blockade). Diagnosis, therapy, prognosis.

36. Primary and secondary arterial hypertension in children and adolescents. Clinic, differential diagnosis. Treatment. Arterial hypotension in children and adolescents. Clinical manifestations. Treatment.

37. Non-rheumatic carditis in children and adolescents. Etiopathogenesis. Classification. Diagnostics. Differential diagnosis of diseases associated with cardiomegaly. Treatment. Prevention. Clinical examination.

38. Infective endocarditis. Etiopathogenesis. Classification. Diagnostics. The role of ultrasound in the diagnosis of endocarditis. Laboratory diagnosis. Treatment. Prevention. Clinical examination.

39. Pericarditis. Etiopathogenesis. Classification. Diagnostics. The role of laboratory and instrumental methods in the diagnosis of pericarditis. Differential diagnosis. Treatment. Prevention. Clinical examination.

40. Congenital heart defects. Etiology. Classification. Diagnosis. Differential diagnosis. Clinic. Hemodynamics. Treatment. Indications and terms of surgical treatment. Clinical examination.

41. Acquired heart defects. Etiology. Classification. Diagnosis. Differential diagnosis. Clinic. Hemodynamics. Treatment. Indications and terms of surgical treatment. Clinical examination.

42. Acute rheumatic fever in children. Etiology, pathogenesis. Classification. Clinic. Features of the course in children and adolescents at the present stage. Differential diagnosis. Treatment. Prevention. Clinical examination. Rehabilitation.

43. Diffuse diseases of the connective tissue. SLE Dermatomyositis. Scleroderma. Juvenile rheumatoid arthritis. Pathogenesis, clinic, diagnosis, treatment. Features of the course of diffuse connective tissue diseases in adolescents. Reactive arthritis. Clinic, diagnosis, treatment, prognosis.

44. Acute vascular insufficiency (fainting, shock, collapse) in children and adolescents. Causes classification. Clinic. Diagnostics. Differential diagnosis. Treatment. Prevention.

45. Bronchitis in children and adolescents. Acute (simple) and obstructive, recurrent bronchitis. Bronchiolitis. Chronical bronchitis. Clinic, diagnosis. Chronic obstructive pulmonary disease in adolescents. Differential diagnosis. Syndrome of ciliary dyskinesia.

46. Acute and chronic pneumonia in older children and adolescents. Etiology, pathogenesis, classification, clinic. Features of pneumonia depending on the form, etiology, severity and complications. Differential diagnosis. Diagnostic methods. Emergency care and intensive care for acute pneumonia. Modern methods of treatment. Rehabilitation, prevention.

47. Congenital and hereditary diseases of the respiratory system. Malformations of the lung, tracheobronchial tree. Cystic fibrosis. Idiopathic pulmonary hemosiderosis. Primary pulmonary hypertension. Goodpasture syndrome. Syndrome Cartagena. Damage to the lungs in primary immunodeficiencies. Diagnosis, differential diagnosis. Approaches to therapy.

48. Bronchial asthma in children and adolescents. Definition Etiology, pathogenesis, methods of specific diagnostics. Classification. Clinic. State of respiratory function. Asthmatic status. Complications. Treatment. Emergency treatment.

49. Respiratory allergies in children and adolescents. Definition The influence of ecology on the development of allergies. Pathogenesis. Clinic, diagnosis. Allergic bronchitis. Allergic alveolitis. Differential diagnosis of recurrent cough syndrome and recurrent bronchial obstruction. Treatment, prevention.

50. Respiratory failure in children and adolescents. The reasons for the development. Classification. Clinical, functional and laboratory signs of respiratory failure. Treatment. Resuscitation, intensive care.

51. Diseases of the urinary system in young children. Malformations of the kidneys and urinary tract. Kidney dysplasia in children.

52. Glomerulonephritis. Classification. Clinic. Diagnostics. Differential diagnosis of individual forms of glomerulonephritis and with other kidney diseases. Features of the course in adolescents. Principles of modern treatment. Indications and contraindications to the use of immunosuppressive therapy of corticosteroids, cytotoxic drugs. Prevention.

53. Infectious and inflammatory diseases of the kidneys and urinary tract in children and adolescents. Pyelonephritis. Prevalence in childhood. Classification. Clinic. Differential diagnosis. Diagnostics. Indications for X-ray examination. Treatment. Prevention. Cystitis Features of the course in adolescents. Neurogenic bladder dysfunction. Cystic ureteral reflux. Modern principles of treatment. Asymptomatic bacteriuria.

54. Acute and chronic renal failure in children and adolescents. The reasons. Clinic. Methods of laboratory diagnosis. Principles of treatment. Urgent Care. Uremic coma. Indications for hemodialysis. Kidney transplant problems.

55. Disorders of the blood supply to the kidneys. Vasorenal hypertension. Thrombosis of the renal vessels.

56. Basics of organizing gastroenterological care for children. Modern methods of examination of children with the pathology of the digestive system.

57. Diseases of the stomach and duodenum. Acute and chronic gastritis, gastroduodenitis, peptic ulcer and 12 duodenal ulcer. Features of the course in adolescents. The role of Helicobacter pylori infection in the formation of diseases of the upper digestive tract. Clinic. Treatment. Complications. Emergency care for bleeding their gastrointestinal tract.

58. Diseases of the esophagus. Gastroesophageal reflux, esophagitis, hiatal hernia, esophageal diverticula. Diagnosis, clinic, treatment. Features of the course in adolescence.

59. Diseases of the small intestine. Malformations, malabsorption syndrome. Examination for chronic diarrhea. The role of diet therapy. Diagnosis, treatment.

60. Ulcerative colitis. Crohn's disease. Etiopathogenesis, clinical manifestations in children and adolescents. Differential diagnosis. Treatment, prognosis.

61. Irritable bowel syndrome in children and adolescents. Clinic, diagnosis, treatment. Constipation in children. Functional constipation, encopresis. Survey methods. Differential diagnosis. Treatment.

62. Changes in the normal intestinal microflora in children and adolescents. Intestinal dysbiosis. Classification, clinic, diagnosis, treatment. Parasitic invasions of the gastrointestinal tract. Clinic, diagnosis, treatment.

63. Pathology of the liver in children and adolescents. Acute and chronic hepatitis. Laboratory diagnosis of liver damage. Differential diagnosis of diseases involving hepatomegaly. Liver failure. Portal hypertension.

64. Diseases of the gallbladder and biliary tract. Classification. Features of the clinical manifestations of cholecystitis in children and adolescents. Treatment. Differential diagnosis of diseases involving jaundice syndrome.

65. Diseases of the pancreas in children and adolescents. Hereditary and congenital diseases: enzyme deficiency, malformations, cystic fibrosis. Acute and chronic pancreatitis. Diagnosis, treatment. Hormonal tumors of the gastrointestinal tract.

66. Diet. The basic principles, the characteristics of medical tables and food.

67. Modern theory of blood formation, regulation of hemopoiesis. Immunocompetent system, mechanisms of immunity and its regulation. Blood test and its interpretation, age aspects. Myelogram. Mechanisms of hemostasis. Evaluation methods.

68. Anemia in older children and adolescents. Deficiency anemia (iron deficiency, vitamin deficiency). Hemolytic anemia (membrane-, enzyme-, hemoglobinopathy). Microangiopathic hemolytic anemia (Hasser syndrome, Moshkovitsa). Hypoplastic anemia and neutropenia. Differential diagnosis of anemia.

67. Organizational work in the children's clinic.

68. Principles of dispensary observation of children, including children of the newborn period and the first year of life.

69. Modern approaches to the problem of development and features of the period of early childhood.

70. Monitoring the development and health of young children.

71. The organization of preventive work of a children's clinic and a preschool institution.

72. Hygienic basis for the upbringing and education of children in preschool institutions and schools.

73. Basics of immunization. Vaccination schedule.

74. Organization and conduct of home treatment for children with acute illnesses.

75. Work in kindergartens and schools.

76. Organization of rehabilitation treatment of children with chronic diseases.

77. The basic principles of work around the clock at home

Test questions examples

1. This is not a characteristic of bronchial asthma:
 - a) bouts of bronchospasm with expiratory dyspnea;
 - b) increased chlorine in sweat and urine;
 - c) hyperproduction of viscous transparent sputum;
 - d) scattered, unstable, dry wheezing;
 - e) hard breathing.

2. Example(s) of obstructive pulmonary disease is/are:
 - a) exogenous allergic alveolitis;
 - b) eosinophilic pneumonia;
 - c) fibrosing alveolitis;
 - d) bronchial asthma;
 - e) chronic pneumonia

3. The basis for chronic bronchiolitis obliterans is:
 - a) transient bronchospasm;
 - b) obliteration of the bronchioles and arterioles of one or several lung areas;
 - c) transient swelling of the bronchial mucosa;
 - d) short-term hyperproduction of bronchial secretions;
 - e) multiple atelectasis

4. The complications of the respiratory tract may be caused by:
 - a) gastroesophago reflux disease;
 - b) pancreatitis;
 - c) peptic ulcer;
 - d) gastritis;
 - e) gallstone disease.

7. A 2-year-old child suddenly coughed, and then turned blue; the cough lasted for about 10 minutes and did not resume. The next day, the cough reappeared (irresistible), with a large number of dry rales more to the right. What is your preliminary diagnosis:

- a) croup;
- b) bronchiolitis;
- c) bronchial foreign body;
- d) all of the above;
- e) obstructive bronchitis.

8. The diagnosis of cystic fibrosis can be confirmed by:

- a) chest x-ray;
- b) bone marrow examination;
- c) biopsy of the small intestine;
- d) microscopy of urine sediment;
- e) determination of sweat electrolytes.

9. The reason for reducing the frequency of obstructive bronchitis with the age of the child:

- a) the increase in the strength of the respiratory muscles;
- b) the reduction of bacterial allergy;
- c) the increase in the lumen of the bronchi;
- d) the decrease in lymphatic tissue reactivity;
- e) the decrease in secretion of the mucous membrane of the bronchial tree.

10. What is not a long-acting bronchodilator:

- a) ephedrine;
- b) salmeterol;
- c) aminophylline;
- d) teopek;

e) berodual.

11. Using a peak fluorometer you can measure:

- a) total expiratory capacity;
- b) lung capacity;
- c) residual lung volume;
- d) maximum (peak) expiratory flow rate (PEF);
- e) degree of bronchial obstruction.

12. The cause of expiratory dyspnea is:

- a) pharyngitis;
- b) laryngitis;
- c) bronchial obstruction;
- d) tracheitis;
- e) none of the above.