

MINISTRY OF HEALTH OF THE REPUBLIC OF BELARUS
EDUCATIONAL INSTITUTION
BELARUSIAN STATE MEDICAL UNIVERSITY

Контрольный
экземпляр

APPROVED

by First Vice-Rector, Professor

S.Y. Gubkin

31.08.2016

Reg. No УД 2-75a/1614/уч.

PEDIATRICS

Curriculum of higher educational institution
in the educational discipline for the specialty:

1-79 01 01 «Internal Medicine»

Minsk, BSMU 2016

Curriculum is based on the standard educational program "Pediatrics", approved 31.08.2016 registration № ТЭ-в. 545/МУУ

COMPILERS:

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RECOMMENDED FOR APPROVAL:

by the 1st and 2nd Departments of the Educational Institution "Belarusian State Medical University"
(protocol № 9 of 13.04.2016);

by the Methodological Commission of Pediatrics of the Educational Institution "Belarusian State Medical University"
(protocol № 7 of 19.04.2016)

EXPLANATORY NOTE

“Pediatrics” is the educational discipline containing systematized scientific knowledge and techniques in the field of Pediatrics, studying of anatomical, physiological and functional features of the growing organism, the course of various diseases in children, methods of diagnostics, treatment and prevention.

The objective of study of the discipline "Pediatrics" is to provide students with knowledge, aimed at preserving or restoring (during illness) the health of the child, allowing him to realize his native potential in a great extent.

The purpose of teaching and learning the discipline "Pediatrics" is:

- to provide students with scientific knowledge and professional skills of examination patients, based on clinical thinking, medical ethics and deontology;
- to develop students' awareness of modern concepts of the origin, development, pathological and pathophysiological features of major diseases in children and adolescents; diagnostics, the clinical picture, treatment and prevention of the diseases.

The tasks of studying the discipline are to develop the students' academic competences, based on the ability to self-search educational and information resources, as well as acquire and understand the knowledge of:

- the basic concepts (principles) of the most common diseases in childhood;
- the causes and pathogenesis, clinical manifestations and basic principles of treatment of the most common diseases in children and adolescents in the classic version;
- the principles of dispensary system for healthy and sick children and adolescents;
- the principles of preventive measures in studied nosologic units;
- etc.

The tasks of teaching the discipline “Pediatrics” include the formation of students' social, personal and professional competences, based on the knowledge and application of:

- methods of evaluation and preservation of the health status of the child;
- methods of examination children and adolescents to obtain objective data and their further interpretation;
- principles of treatment and prevention of diseases studied;
- principles of organization of emergency medical care in critical situations in pediatric practice.

Teaching and successful learning of the discipline “Pediatrics” is carried out on the basis of the knowledge and skills previously acquired by the students in the following disciplines:

Medical and biological physics. Medical devices and equipment used in pediatrics.

Medical biology and general genetics. Biological base of vital activity. Heredity and variability. Man and the Biosphere. Biological aspects of human ecology.

Biological chemistry. Structure, functions and exchange of aminoacids, nucleic acids, proteins, carbohydrates and lipids. The biosynthesis of nucleic acids and proteins. Energy metabolism in the cell. Cells membranes. Passive and active transportation of substances through the cell membrane structure. Base of molecular genetics.

Human anatomy. The structure of the human body, its component systems, organs, tissues. Sex and age characteristics of the child's body.

Histology, cytology, embryology. Blood and lymph. Connective tissue. Epithelial tissues. Organs of hemopoiesis and immune defense (central and peripheral), structure, immunogenesis. Morphological bases of immune reactions.

Normal physiology. Physiological base of the vital activity of cells, organs, tissues and the whole organism in its interaction with the living environment. Physiological functions of the body at various levels of the organization, the mechanisms of their regulation and self-regulation. Main indices characterizing the normal state of physiological functions of the body and its systems. Physiological base of a healthy lifestyle.

Pathological anatomy. Inflammation: concept, biological nature, etiology and pathogenesis, morphology, classification (common inflammation, specific inflammation). Immunological processes: immunogenesis morphology, local allergic reactions, autoimmune diseases. The morphology of a number of diseases of the infectious and allergic origin.

Pathological physiology. Teaching of pathogenesis. Pathogenic effects of environmental factors (biological factors - viruses, bacteria, protozoa). The role of host reactivity in the pathology. Allergic reactivity. Pathological physiology of the infections process.

Microbiology, immunology and virology. The concept of immunity (factors, types, links), the main types of immunopathological reactions, methods of diagnostics in immunology.

Epidemiology and military epidemiology. The incidence of non-infections and infectious diseases in population. Principles of analyses of morbidity and impact of risk factors.

Pharmacology. Principles of drugs pharmacodynamics and pharmacokinetics. Factors determining the therapeutic efficacy, side effects and toxicity of drugs.

As a result of studying the discipline "Pediatrics" the student should know:

- the goals, objectives, structure and organization of first and specialized medical care for children and adolescents in outpatient and inpatient clinics in the Republic of Belarus;
- the structure of childhood morbidity in age groups in the Republic of Belarus;
- International Classification of Diseases;
- the structure of neonatal, infantile, childhood morbidity in age groups in the Republic of Belarus and methods of it decreasing;

- special features of the course of the neonatal and post-natal periods;
- classification, etiology, pathogenesis, clinical picture, diagnostics and differential diagnostics, methods of prevention and treatment of the most common diseases in neonates, infants, children and adolescents;
- methods of maintaining disturbed functions and replacement the lost functions of the organs and functional systems of the body in pathological processes;
- prescribed volume of examining sick children during medical care;
- indications and contraindications for sanatorium treatment;
- methods of outpatient rehabilitation;
- base of dispensary system of the children's population and rehabilitation of sick children;
- principles of medical expertise;
- principles of ethics and deontology.

be able to:

- communicate with a healthy and a sick child, and his parents, with respect to the principles of medical ethics and deontology; aging psychosocial and personal features and individual reaction on the illness;
- do prophylaxis check-up and dispensary monitor in children and adolescents;
- carry out a clinical examination of newborn in accordance with pregnancy and delivery;
- examine child according to his age (collect anamnesis, complaints, check-up, percussion, palpation, auscultation) with additional methods of diagnostics;
- develop an indication to additional methods of diagnostics and clinical interpretation of laboratory parameters, data from instrumental and functional diagnostic methods;
- make differential diagnosis;
- justify the final clinical diagnosis, identify comorbidities, determine complications;
- provide medical expertise of temporary disability childcare and execute document of disability;
- to provide emergency medical care for urgent conditions threatening the life of the child; cardiopulmonary and respiratory resuscitation: fainting, collapse, shock, coma, acute heart insufficiency, insults, acute respiratory insufficiency, seizures, allergic reactions, trauma, poisoning, drowning, electrical trauma, burns, chilblain, bleeding in children and adolescents;
- prescribe medications in accordance with features of child's organism, prescribe recipe;
- carry out maintenance when transporting newborns, infants and children to specialized health care organization;
- perform venous puncture, gastric lavage, intramuscular and subcutaneous injections, healing and cleansing enemas, sanitation of upper respiratory tract, taking blood pressure, pulse rate, rate of breathing;
- analyze Electrocardiogram (ECG), ECHO-cardiography, computer tomography, esophagogastroduodenoscopy, spirography, pneumotachometry, sternal puncture;

- calculate volume of infusion therapy, to determine the indications for blood transfusion;
- use of modern methods of detoxication;
- perform primary wounds assessment before hospitalization;
- use of methods of physio-therapy and medical physical exercises;

master:

- the methods of examination of newborn, healthy children in all age groups;
 - the skills of feeding organization of preterm and full-term newborns, infants;
 - the methods of examination of child with pathological conditions;
 - the skills of interpretation of laboratory and instrumental results;
 - the skills of treatment and rehabilitation organization of children in accordance with local standard protocols for diagnosis and treatment;
- the principles of emergency medical care for urgent conditions;
- the skills of medical expertise of temporary disability;
- the skills of sanitary-hygienic education on the formation of healthy life style.

The structure of the curriculum in the educational discipline “Pediatrics” includes 7 chapters.

Total number of hours for the study of the discipline is 270 academic hours. Classroom hours according to the types of studies: lectures - 30 hours, practical classes - 120 hours, student independent work (self-study) – 120 hours.

Current assessment is carried out according to the syllabus of the specialty in the form of a credit (8 semester) and examination (9 semester).

Form of higher education – full-time.

**ALLOCATION OF ACADEMIC TIME
ACCORDING TO SEMESTERS OF STUDY**

Code, name of the specialty	semester	Number of academic hours					Form of current assessment
		total	in-class	including		out-of-class self-studies	
				lectures	practical classes		
1-79 01 01 Internal Medicine	7	86	55	10	45	31	-
	8	80	50	10	40	30	credit
	9	104	45	10	35	59	exam
Total		270	150	30	120	120	

THEMATIC PLAN

Name of the topic	Number of class hours	
	lectures	practical
1. Early childhood	6	17
1.1. Rickets, spasmophilia, hypervitaminosis D	2	6
1.2 Chronic digestive disorders	2	6
1.3 Anomalies of the constitution and diathesis	2	5
2. Diseases of the respiratory organs	4	17
2.1 Bronchitis	-	5
2.2 Acute pneumonia	2	6
2.3 Bronchial asthma	2	6
3. Diseases of the cardiovascular system	2	16
3.1 Congenital heart diseases (CHD).	-	5
3.2 Acute rheumatic fever (ARF). Chronic rheumatic illness	-	6
3.3 Acute and chronic heart failure	2	5
4. Diseases of the digestive organs and the biliary system	2	11
4.1 Diseases of the stomach and duodenum The scheme of the patient's history	2	6

Name of the topic	Number of class hours	
	lectures	practical
4.2 Diseases of the biliary system	-	5
5. Diseases of the kidneys and urinary tract	6	18
5.1 Infection of the urinary system in children (pyelonephritis, cystitis)	2	6
5.2 Acute and chronic glomerulonephritis in children	2	6
5.3 Acute and chronic renal failure	2	6
6. Physiology and pathology of the neonatal period	4	18
6.1 Anatomical and physiological features of newborns, neonatal care, nutrition	-	6
6.2 Differential diagnostics of neonatal jaundices	2	6
6.3 Purulent inflammatory diseases in newborns	2	6
7. Diseases of the blood system	6	23
7.1 Anemias in children	2	6
7.2 Hemorrhagic diathesis	2	11
7.3 Leukosis (acute and chronic)	2	6
Total hours	30	120

CONTENTS OF THE EDUCATIONAL MATERIAL

1. Early childhood

1.1 Rickets, spasmophilia, hypervitaminosis D

Rickets.

The definition of «rickets». Predisposing factors and etiology of rickets. Vitamin D and its role in rickets development. Vitamin D metabolism. Features of a calcium, phosphorus, and bone metabolism. Needs of children's organism for calcium and phosphorus. Classification and pathogenesis of rickets. Biochemical shifts in blood serum, radiological changes of the skeleton. Clinical features, diagnostics, treatment of rickets, prophylaxis. Rehabilitation children with rickets.

Hypervitaminosis D

The reasons and predisposing factors, classification of hypervitaminosis D, pathogenesis. Clinical features of manifestations of the acute and chronic form. Diagnostics, complications, treatment, prophylaxis of hypervitaminosis D.

Spasmophilia

Concept of spasmophilia as hypocalcemia syndrome in children with rickets. The reasons and predisposing factors, pathogenesis, clinical features of asymptomatic and manifest forms. Diagnostics, treatment, prophylaxis of spasmophilia.

Follow-up of patients with rickets, hypervitaminosis D, spasmodophilia: collection of complaints and medical history; objective examination of the patient; draw up a management plan; interpretation of the results of laboratory and instrumental methods of examination; substantiation of diagnosis and treatment. Writing the academic case history.

1.2. Chronic digestive disorders

Energy-protein malnutrition.

Definition of «normotrophy» and «dystrophy». Types of dystrophy. Classical symptoms of dystrophy.

Predisposing factors of energy-protein malnutrition in children. Classification, pathogenesis, clinical features of manifestations depending on severity. Principles of energy-protein malnutrition treatment: stages of dietotherapy, calculation of daily required amount of proteins, fats, carbohydrates, correction of disorders, medicament therapy. Rehabilitation. Prophylaxis. Dispensary supervision children with energy-protein malnutrition.

Obesity

Clinical features and criteria of diagnostics. Stages of dietotherapy, prophylaxis. Rehabilitation children with obesity.

Follow-up of patients with chronic digestive disorders: collection of complaints and medical history; objective examination of the patient; draw up a management plan; interpretation of the results of laboratory and instrumental methods of examination; substantiation of diagnosis and treatment. Writing the academic case history.

1.3. Anomalies of the constitution and diathesis

Exudative diathesis: pathogenesis, predisposing factors, clinical features. Differential diagnosis of exudative diathesis and atopic dermatitis. Diagnostics, prophylaxis, treatment of clinical manifestations of exudative diathesis.

Lymphohypoplastic diathesis: predisposing factors, clinical features, diagnostics, prophylaxis, treatment of clinical manifestations.

Arthritism: predisposing factors, pathogenesis of purine metabolism disorders, clinical features, diagnostics, prophylaxis, treatment of the clinical manifestation (acetonemic vomiting).

Follow-up of patients with anomalies of the constitution: collection of complaints and medical history; objective examination of the patient; draw up a management plan; interpretation of the results of laboratory and instrumental methods of examination; substantiation of diagnosis and treatment. Writing the academic case history.

2. Diseases of the respiratory organs

2.1 Bronchitis.

Definition and classification of bronchitis. Epidemiology and etiology of bronchitis in children of at an early age. Clinical and diagnostic criteria of acute, obstructive bronchitis, bronchiolitis, obliterating bronchiolitis, differential diagnosis, treatment, prophylaxis.

Follow-up of patients with bronchitis: collection of complaints and medical history; objective examination of the patient; draw up a management plan; interpretation of the results of laboratory and instrumental methods of examination; substantiation of diagnosis and treatment. Writing the academic case history.

2.2 Acute pneumonia.

Definition. Classification, etiology, pathogenesis of acute pneumonia. Concept of hospital-acquired and community-acquired pneumonia. Clinical picture of acute pneumonia (catarrhal and intoxication syndromes, symptoms of the lung lesions, hematologic shifts, data of instrumental examination). Diagnostics, differential diagnosis, principles of treatment (general measures, diet, antibacterial therapy, infusion therapy, symptomatic treatment). Prophylaxis. Rehabilitation children with acute pneumonia.

Follow-up of patients with acute pneumonia: collection of complaints and medical history; objective examination of the patient; draw up a management plan; interpretation of the results of laboratory and instrumental methods of examination; substantiation of diagnosis and treatment. Writing the academic case history.

2.3 Bronchial asthma

Bronchial asthma (BA): definition, classification, etiology (the role of allergy and heredity), classification of allergens, triggers, pathogenesis (immunological bases of asthma, concept of bronchial hyperactivity). Clinical features of BA depending on the disease period (typical attack, cough variant, asthmatic bronchitis, status asthmaticus). Peculiarities of asthma in children at an early age. Clinical and laboratory diagnostics. Diagnostic criteria, differential diagnosis. Basic therapy (hypoallergenic life and diet, specific immunotherapy, drug therapy, the principles of "step" therapy depending on severity). Prophylaxis of BA. Rehabilitation children with asthma. Work with sick children and their parents. Training in asthma school.

Follow-up of patients with bronchial asthma: collection of complaints and medical history; objective examination of the patient; draw up a management plan; interpretation of the results of laboratory and instrumental methods of examination; substantiation of diagnosis and treatment. Writing the academic case history.

3. Diseases of the cardiovascular system

3.1 Congenital heart diseases.

Congenital heart diseases (CHD): prevalence depending on age, classification, etiological factors. Clinical features of manifestation and haemodynamic features of CHD associated with elevated pulmonary arterial pressure, with decreased pulmonary arterial pressure, with decreased aortal pressure, without haemodynamic disorders. Instrumental methods of diagnostics of CHD, differential diagnosis, complications, prognosis. Principles of treatment of CHD, indications and terms for cardiac surgery. Prophylaxis. Rehabilitation children with CHD. Emergency help to children with hypercyanotic spell.

Follow-up of patients with CHD: collection of complaints and medical history; objective examination of the patient; draw up a management plan; interpretation of the results of laboratory and instrumental methods of examination; substantiation of diagnosis and treatment. Writing the academic case history.

3.2 Acute rheumatic fever. Chronic rheumatic illness

Acute rheumatic fever

Definition of acute rheumatic fever (ARF). The role β -haemolytic streptococcus. Classification, etiology, pathogenesis of ARF. Peculiarities of pathomorphology of ARF in children, clinical features, course, criteria of activity of the process. Diagnostic criteria of ARF, differential diagnosis. Stages of treatment of ARF. Current, primary and secondary prevention of ARF.

Follow-up of patients with ARF: collection of complaints and medical history; objective examination of the patient; draw up a management plan; interpretation of the results of laboratory and instrumental methods of examination; substantiation of diagnosis and treatment. Writing the academic case history.

Chronic rheumatic illness

Clinical and diagnostic criteria of failure of the mitral, aortic, and tricuspid valves. Clinical and diagnostic criteria of stenosis of the mitral valve, combined and the arranged mitral and aortic valve failures. Principles of conservative treatment, terms and indications for cardiac surgery.

Follow-up of patients with chronic rheumatic illness: collection of complaints and medical history; objective examination of the patient; draw up a management plan; interpretation of the results of laboratory and instrumental methods of examination; substantiation of diagnosis and treatment. Writing the academic case history.

3.3 Acute and chronic heart failure

Definition, classification, etiology, pathogenesis of heart failure. Clinical features and diagnostic criteria of acute, chronic heart failure. Features of heart failure in children at an early age. Treatment (regimen, diet, ACE inhibitors, vasodilators). Principles of administration of digitalis therapy in children at different age. Symptoms of digoxin intoxication.

Follow-up of patients with heart failure: collection of complaints and medical history; objective examination of the patient; draw up a management plan; interpretation of the results of laboratory and instrumental methods of examination; substantiation of diagnosis and treatment. Writing the academic case history.

4. Diseases of the digestive organs and the biliary system

4.1 Diseases of the stomach and duodenum

Chronic gastritis, gastroduodenitis: definition, classification, significance in the etiology of *Helicobacter pylori* (Hp) infection, hyperchlorhydria, medicines, food allergy, parasitogenic invasions, motor abnormalities, pathogenesis, pathomorphological changes in mucous of the stomach and duodenum. Clinical features of chronic gastritis, gastroduodenitis, instrumental methods of examination and their role in diagnostics, diagnostic criteria, treatment, prognosis.

Peptic ulcer disease: definition, classification, prevalence in children at different age, etiology, the role of Hp infection, genetic factors in the development of the disease, pathogenesis, pathomorphological changes in mucous of the stomach and duodenum. Development of ulcer. Clinical and endoscopic stages of peptic ulcer.

Diagnostic criteria. Complications. Treatment of peptic ulcer disease, indications to surgical treatment, antirecurrent actions.

Follow-up of patients with the digestive organs diseases: collection of complaints and medical history; objective examination of the patient; draw up a management plan; interpretation of the results of laboratory and instrumental methods of examination; substantiation of diagnosis and treatment. Writing the academic case history.

4.2 Diseases of the biliary system

Biliary dyskinesia: definition, classification, etiology, pathogenesis, clinical features. The role of constitutional features of the child, imbalance in the departments of the Instrumental examination children with biliary dyskinesia, treatment depending on the type of dysfunction of the biliary tract.

Cholelithic illness: etiology and pathogenesis. Features of formation of gallstones at children's age. Clinical features of cholelithic illness: an asymptomatic carrying, painful, dyspeptic variant, biliary colic. Diagnostic criteria of cholelithic illness. Treatment, significance of regime factors, nutrition, drug therapy, antirecurrent actions.

Follow-up of patients with the biliary system diseases: collection of complaints and medical history; objective examination of the patient; draw up a management plan; interpretation of the results of laboratory and instrumental methods of examination; substantiation of diagnosis and treatment. Writing the academic case history.

5. Diseases of the kidneys and urinary tract

5.1 Infection of the urinary system in children (pyelonephritis, cystitis)

Concept of an infection of the urinary system and infection of urinary tract, frequency of distribution among children's population, etiology and ways of distribution of infection. Definition of bacteriuria. Asymptomatic and symptomatic bacteriuria.

Pyelonephritis: definition, classification, concept of the primary, secondary, acute and chronic pyelonephritis. Diagnostic criteria of pyelonephritis. Features of clinical manifestations of pyelonephritis in infants. Methods of diagnostic of pyelonephritis, indications and contraindications for the excretory urography. Principles of treatment. Starting and antirecurrent therapy, indications and contraindications for antirecurrent therapy. Rehabilitation children with pyelonephritis.

Cystitis: definition, clinical features of acute and chronic cystitis, treatment, antirecurrent therapy.

Follow-up of patients with infection of the urinary system (pyelonephritis, cystitis): collection of complaints and medical history; objective examination of the patient; draw up a management plan; interpretation of the results of laboratory and instrumental methods of examination; substantiation of diagnosis and treatment. Writing the academic case history.

5.2 Acute and chronic glomerulonephritis

Acute glomerulonephritis: definition, clinical classification, etiology, pathogenesis. The role of β -haemolytic streptococcus, mechanism of the edematous syndrome. The characteristic features of nephritic, nephrotic syndrome with a hematuria and hypertension. The characteristic features of glomerulonephritis with the isolated urinary syndrome. Basic, pathogenetic and symptomatic therapy of acute glomerulonephritis. Rehabilitation children with acute glomerulonephritis.

Chronic glomerulonephritis: definition, factors promoting the formation of the chronic process. Clinical and laboratory signs of the hematuric, nephrotic and mixed form, principles of treatment. Prophylaxis of recurrence. Rehabilitation children with chronic glomerulonephritis.

Rapidly progressive malignant glomerulonephritis: definition, etiology, pathogenesis, morphological features, clinical features, diagnostics, principles of treatment, indications and technique of carrying out the pulse therapy, complications, outcomes.

Follow-up of patients with acute and chronic glomerulonephritis: collection of complaints and medical history; objective examination of the patient; draw up a management plan; interpretation of the results of laboratory and instrumental methods of examination; substantiation of diagnosis and treatment. Writing the academic case history.

5.3 Acute and chronic renal failure.

Determination of acute and chronic renal failure, etiology, pathogenesis, clinical features and diagnostic criteria of the renal failure stages, principles of treatment at different stages, indications for renal replacement therapy, prophylaxis, rehabilitation.

Determination of chronic renal failure, classification, risk factors, etiology, morphological picture, the syndromes of chronic renal failure, principles of conservative therapy, indications for the program of dialysis, rehabilitation.

Follow-up of patients with acute and renal failure: collection of complaints and medical history; objective examination of the patient; draw up a management plan; interpretation of the results of laboratory and instrumental methods of examination; substantiation of diagnosis and treatment. Presentation of the pediatric history.

6. Physiology and pathology of the neonatal period.

6.1 Anatomical and physiological features of newborns, neonatal care, nutrition

Morphological and functional maturity. Concept of the premature and full term infant. Criteria of morphological and functional maturity. Borderlines. Management of newborns with borderlines.

Anatomical and physiological features of the premature baby. Petrus's, Ballard's, scale. Assessment of physical development of newborns according to percentile tables.

Levels of service of newborns. Sanitary and epidemiologic mode of newborn's departments. Groups of risk and health. Dispensary supervision newborns in out-patient clinics, depending on the group of health. Modern approaches to the organization of feeding of newborns.

Follow-up of newborns: collection of pregnancy and birth history; objective examination of the newborn; assessment morphological and functional maturity of the newborn; draw up a management plan; interpretation of the results of laboratory and instrumental methods of examination; substantiation of groups of risk and health.

6.2. Differential diagnostics of neonatal jaundices

The bilirubin metabolism in newborns. Classification of jaundices. Clinical features of the icteric syndrome depending on pathogenic mechanisms. Significance of clinical features, blood picture and biochemical indices of serum for differentiation of jaundices. Differential diagnostics of physiological and pathological jaundices. Basic principles of treatment of jaundices.

Follow-up of newborns with neonatal jaundices: collection of pregnancy and birth history; objective examination of the newborn; draw up a management plan; interpretation of the results of laboratory and instrumental methods of examination; substantiation of diagnosis and treatment.

6.3 Purulent inflammatory diseases in newborns

Frequency and specific weight in morbidity and mortality structure. Modern etiology of purulent inflammatory diseases.

Classification of the local forms of the purulent inflammatory diseases (skin, subcutaneous fat, glandular tissue, umbilical wound). Clinical picture of local purulent inflammatory diseases. Diagnostics, differential diagnosis, principles of treatment and prophylaxis of local purulent inflammatory diseases.

Definition of «the neonatal sepsis», «the systemic inflammatory response syndrome» (SIRS). Risk factors of the development of sepsis in newborns, classification, pathogenesis, clinical features, criteria of diagnostics of SIRS, neonatal sepsis, principles of treatment, outcomes, prophylaxis.

Follow-up of newborns with purulent inflammatory diseases: collection of pregnancy and birth history; objective examination of the newborn; draw up a management plan; interpretation of the results of laboratory and instrumental methods of examination; substantiation of diagnosis and treatment.

7. Diseases of the blood system

7.1 Anemia in children

Definition, classification, etiology, clinical and laboratory features of anemia depending on the reason, principles of therapy, prophylaxis.

Follow-up of patients with anemia: collection of complaints and medical history; objective examination of the patient; draw up a management plan; interpretation of the results of laboratory and instrumental methods of examination; substantiation of diagnosis and treatment.

7.2 Hemorrhagic diathesis

Hemostasis system. Physiology of blood coagulation (hemostasis stages). Types of bleeding. Concept of hemorrhagic diathesis.

Hemorrhagic vasculitis: classification, etiology, pathogenesis, clinical features and laboratory diagnostics, treatment, prophylaxis.

Hemophilia: etiology, pathogenesis, clinical features and laboratory diagnostics, treatment, prophylaxis.

Thrombocytopenia: immune thrombocytopenic purpura: etiology, pathogenesis, clinical features, diagnostics, treatment.

Thrombocytopathy: hereditary and acquired forms, clinical features, diagnostic criteria, differential diagnosis, treatment.

Follow-up of patients with hemorrhagic diathesis: collection of complaints and medical history; objective examination of the patient; draw up a management plan; interpretation of the results of laboratory and instrumental methods of examination; substantiation of diagnosis and treatment.

7.3 Leukosis

Definition leucosis, classification, etiology, pathogenesis. Morphological substratum of acute and chronic leukosis. Clinical syndromes and types of blood picture in leukosis. Diagnostic criteria of leukosis. Clinical features, the characteristic features of hemogram and myelogram of acute lymphoblastic leucosis, strategy and principles of treatment.

Chronic myeloleukosis: clinical features, the characteristic features of hemogram and myelogram, principles of treatment, prognosis.

Follow-up of patients with leucosis: collection of complaints and medical history; objective examination of the patient; draw up a management plan; interpretation of the results of laboratory and instrumental methods of examination; substantiation of diagnosis and treatment.

ACADEMIC YEAR CHART FOR THE DISCIPLINE **PEDIATRICS** FOR THE SPECIALITY 1-79 01 01 «**INTERNAL MEDICINE**»

Lessons №	Code and name of the theme, the list of studied questions	Number of hours			Serial number of educational and methodical textbook (according to the list of literature)	List of training appliances (serial No.), facilities	Forms of control
		lectures	practical classes (seminars)	controlled individual work			
7 semester							
	1. Early childhood	6	17	12			
1	1.1. Rickets, spasmophilia, hypervitaminosis D	2	6	4	1,2,5,6	1, 2	Oral questioning situational tasks, tests
2	1.2 Chronic digestive disorders	2	6	4	1,2,5,6	1, 3	Oral questioning situational tasks, tests
3	1.3 Anomalies of the constitution and diathesis	2	5	4	1,2,5,6	4	
	2. Diseases of the respiratory organs	4	17	12			
4	2.1 Bronchitis	-	5	4	1,2,5,6	5, 8, 33, 36.4	Oral questioning situational tasks, tests
5	2.2 Acute pneumonia	2	6	4	1,2,5,6	8, 6, 33,36.4	Oral questioning, situational tasks, tests
6	2.3 Bronchial asthma	2	6	4	1,2,5,6	7, 33, 36.4, 35	Oral questioning situational tasks,

Lessons №	Code and name of the theme, the list of studied questions	Number of hours			Serial number of educational and methodical textbook (according to the list of literature)	List of training appliances (serial No.), facilities	Forms of control
		lectures	practical classes (seminars)	controlled individual work			
							tests
	3. Diseases of the cardiovascular system		11	7			
7	3.1 Congenital heart diseases (CHD).	-	5	4	1,2,5,6	9, 11, 32, 34, 36.5	Seminar reports situational tasks, tests
8	3.2 Acute rheumatic fever (ARF). Chronic rheumatic illness	-	6	3	1,2,5,6	9, 10, 32, 34, 36.5	Oral questioning situational tasks, final tests
	8 semester						
	3. Diseases of the cardiovascular system	2	5	5			
9	3.3 Acute and chronic heart failure	2	5	5	1,2,5,6	12, 34	Oral questioning situational tasks, tests
	4. Diseases of the digestive organs and the biliary system	2	11	8			
10	4.1 Diseases of the stomach and duodenum. The scheme of the patient's history.	2	6	4	1,2,5,6	17, 31, 36.3	Oral questioning situational tasks, tests
11	4.2 Diseases of the biliary system	-	5	4	1,2,5,6	19, 18	Oral questioning situational tasks, tests

lessons №	Code and name of the theme, the list of studied questions	Number of hours			Serial number of educational and methodical textbook (according to the list of literature)	List of training appliances (serial No.), facilities	Forms of control
		lectures	practical classes (seminars)	controlled individual work			
17	6.2 Differential diagnostics of neonatal jaundices	2	6	10	3,5,6	25	Oral questioning situational tasks, tests
18	6.3 Purulent inflammatory diseases in newborns	2	6	9	3,5,6	26	Control questioning, situational tasks, tests
	7. Diseases of the blood system	6	17	30			
19	7.1 Anemias in children	2	-	-			
20	7.2 Hemorrhagic diathesis	2	11	20	1,2,5,6	27, 28, 29	Oral questioning, situational tasks, tests
21	7.3 Leukosis	2	6	10	1,2,5,6	37	Oral questioning situational tasks, tests, examinations

INFORMATION AND INSTRUCTIONAL UNIT

LITERATURE

Basic (relevant):

1. Pediatrics: Textbook for students of the Faculty of Foreign Students / N.S. Paramonova, V.A. Zhemoytiak, P.R.Gorbachevsky,- Grodno: GrSMU,2010. – 264p.
2. Paramonova, N. S. Introduction to pediatrics [Text] = Основы педиатрии: учеб. пособие : допущ. М-вом образования Респ. Беларусь для студ. учреждений высш. образования по мед. специальностям /Н.С. Парамонова, В. А. Жемойтяк, П. Р. Горбачевский ; - Grodno : GrSMU, 2012. - 359 p
3. Pathogenesis, diagnostics and treatment of diseases in the newborn / V.Novikova et al.; Viteb. State Med. Un. – VSMU, 2007.- 555 p.
4. Computer tests and questions for the state examination in pediatrics for the faculty of foreign students / Grodno: GrSMU, 2012.CD-ROM

Additional:

5. Nelson Textbook of Pediatrics, 19th ed /edited by Robert M. Kliegman et al. –USA,- 2011, p.8976
6. Illustrated textbook of paediatrics /T.Lissauer, G.Clayden.-Mosby Elsevier, 4th ed., 2012. - 533p.

LIST OF TRAINING APPLIANCES

Multimedia presentations

1. Nutrition of the healthy children
2. Pathogenesis of rickets
3. Chronic digestive disorders
4. Anomalies of the constitution and diathesis
5. Medications for cough treatment
6. Antibacterial therapy of respiratory tract diseases
7. Bronchial asthma in children
8. Bronchitis and pneumonia in children
9. ECG features in children
10. Cardiac arrhythmias
11. Congenital heart diseases
12. Heart failure in children
13. Hemolytic uremic syndrome
14. Morphological types of glomerulonephritis
15. Urinary syndrome in children

16. Acute and chronic renal failure
17. Peptic ulcer disease in children
18. Parasitic diseases of the liver
19. Acute and chronic cholecystocholangitis
20. Evaluation of gestational age
21. General inspection of the newborn
22. Methods of prenatal diagnostics
23. Syndrome of twin to twin transfusion
24. Ventilation in neonates
25. Differential diagnostics of neonatal jaundices
26. Purulent inflammatory diseases in newborns
27. Hemorrhagic vasculitis in children
28. Thrombocytopathy and thrombocytopenia in children.
29. Hemophilia
30. Anemia in children
31. Video course "Endoscopic diagnostics in gastroenterology"
32. Audio course "Normal and abnormal cardiac auscultation data in children"
33. Lung auscultation data
34. Sets of electrocardiograms
35. Sets of pulmonary function tests
36. X-ray sets:
 - 36.1 Excretory urography
 - 36.2 Micturating cystourethrogram
 - 36.3 Plan abdominal X-ray
 - 36.4 Chest X-ray in the pathology of the bronchi and lungs
 - 36.5 Chest X-ray in heart disease
37. Acute and chronic Leukosis

LIST OF AVAILABLE DIAGNOSTIC TOOLS

The following forms are used for competences assessment:

1. Oral form:
 - Oral questioning
 - seminar reports;
 - situational tasks and tests.
2. Written form:
 - tests;
 - control questioning;
 - final tests;
3. Oral-written form:
 - credits;
 - examinations.

LIST OF LECTURES

7 semesters

Rickets, spasmophilia, hypervitaminosis D
Chronic digestive disorders
Anomalies of the constitution and diathesis
Acute pneumonia
Bronchial asthma

8 semesters

Acute and chronic heart failure
Diseases of the stomach and duodenum.
Infection of the urinary system in children (pyelonephritis, cystitis)
Acute and chronic glomerulonephritis in children
Acute and chronic renal failure

9 semesters

Differential diagnostics of neonatal jaundices
Purulent inflammatory diseases in newborns
Anemias in children
Hemorrhagic diathesis
Leucosis

LIST OF PRACTICAL STUDIES

7 semesters

Rickets, spasmophilia, hypervitaminosis D
Chronic digestive disorders
Anomalies of the constitution and diathesis
Bronchitis
Acute pneumonia
Bronchial asthma
Congenital heart diseases
Acute rheumatic fever (ARF). Chronic rheumatic illness

8 semesters

Acute and chronic heart failure
Diseases of the stomach and duodenum. The scheme of the patient's history.
Diseases of the biliary system
Infection of the urinary system in children (pyelonephritis, cystitis)
Acute and chronic glomerulonephritis in children
Acute and chronic renal failure
Anemias in children

9 semesters


Anatomical and physiological features of newborns, neonatal care, nutrition
Differential diagnostics of neonatal jaundices
Purulent inflammatory diseases in newborns
Hemorrhagic diathesis (hemorrhagic vasculitis, thrombocytopenia
thrombocytopathy)
Hemophilia
Leucosis

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Curriculum content, composition and
accompanying documents comply with
established requirements


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