

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE  
Petro Mohyla Black Sea National University  
Medical Institute  
Department of Therapeutic and Surgical Disciplines



COURSE DESCRIPTION

" Pediatrics with children's infectious diseases "

Specialty 222 "Medicine"

Developer

Head of the Department of Developer

Guarantor of the educational program

Director of the institute

Head of NMV

Chernyshov O.V. \_\_\_\_\_

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## 1. Description of the discipline

The name of the indicator	Characteristics of the discipline	
Name of discipline	Pediatrics	
Branch of knowledge	22 "Health care"	
Specialty	222 "Medicine"	
Specialization (if any)		
Educational program	Medicine	
Level of higher education	Master	
Discipline status	Normative	
Curriculum	5th	
Academic year	2020 - 2021	
Semester numbers :	Full-time	Correspondence form
	9th, 10th	
The total amount of credits ECTS / hours	5 credits (3 / 2) / 150 hours	
Course structure : - lectures - practical classes - hours of independent work of students	Full-time	Correspondence form
	10 (6 / 4)	
	70 (50 / 20) 70. (40 / 30)	
Percentage of classroom work	53 %	
Language of instruction	English	
Form of intermediate control (if any)	Attestation for the 9th semester	
Form of final control	Exam - 10th semester	

### 1. Purpose, tasks and planned learning outcomes

**The purpose of** teaching the discipline "Pediatrics" in the 5th year of study is for students to acquire knowledge and professional skills in neonatology, pediatric endocrinology, pediatric hematology and pediatric infectious diseases based on knowledge of age anatomical and physiological features of the child's body, medical biology, normal anatomy, normal physiology, histology and embryology, biochemistry, microbiology and virology, pathomorphology, pathophysiology, pharmacology and skills of clinical, laboratory and instrumental examination of the child in compliance with the principles of medical ethics and deontology.

**The subject of** study of the discipline "Pediatrics, pediatric infectious diseases" are the most common diseases of newborns, non-communicable diseases of childhood (endocrine diseases and diseases of the blood system in children) and the most common infectious diseases of children.

**Interdisciplinary links** : according to the curriculum , the study of the discipline "Pediatrics" is provided in VII - X II semesters. Prior to that, the student acquired relevant knowledge in the main basic disciplines: medical biology, normal anatomy, normal physiology, histology and embryology, bioorganic and biological chemistry, microbiology and virology and immunology, pathomorphology, pathophysiology, pharmacology, and clinical disciplines: propaetripedic , pediatric therapy, surgery, obstetrics with which the program of the discipline "Pediatrics" is integrated . In turn, the discipline "Pediatrics" forms the foundations for further study student discipline "General practice (family medicine)" , "infectious disease" , which involves the integration of these disciplines "for vertical" and formation of skills for further learning and use in professional activities.

#### **Expected learning outcomes. As a result of studying the discipline, students have:**

- 1.To determine the etiological and pathogenetic factors of the most common somatic diseases of childhood.
- 2Classify and analyze the typical clinical picture of the most common somatic diseases of childhood.
- 3.Make a plan of examination and analyze the data of laboratory and instrumental examinations in the typical course of the most common to demonstrate mastery of the principles of treatment, rehabilitation and prevention of the most common somatic diseases of childhood.
- 4.Put the diagnosis and provide emergency assistance in the most common somatic diseases of childhood.
- 5.Assess the prognosis of the most common somatic diseases of childhood.
- 6.Demonstrate mastery of moral and deontological principles of a medical specialist and the principles of professional subordination in pediatrics.

According to the method of organization, practical classes are clinical, aimed at controlling the assimilation of theoretical material and the formation of practical skills, as well as the ability to analyze and apply the acquired knowledge to solve practical problems; they provide:

- collecting history;
- examination of a sick child;
- planning the examination of a sick child;
- interpretation of laboratory and instrumental research data;
- of the differential diagnosis of the most common

diseases of children aged under typical of course;

- determination of the preliminary clinical diagnosis;
- definition of therapeutic tactics;
- appointment of medical nutrition;
- providing emergency medical care;
- situational solutions
- on models and near the bed of a sick child;
- keeping medical records.

According to the requirements of the educational-professional program, students must

**know:**

- definition, prevalence, classification, etiology and pathogenesis of the most common diseases of children period of newborn children with endocrine, hematologic diseases and childhood infectious diseases;
- Clinical manifestations of uncomplicated and complicated course the most common diseases of children period of newborn children with endocrine, hematologic diseases and pediatric infectious diseases;
- criteria for establishing a preliminary clinical diagnosis in the most common diseases of infants, children with endocrine, hematological diseases and childhood infectious diseases;
- a plan of laboratory and instrumental examination of children with the most common diseases of children period of newborn children with endocrine, hematologic diseases and childhood infectious diseases;
- the differential diagnosis of the most common diseases of children period of newborn children with endocrine, hematologic diseases and childhood infectious diseases;
- criteria for establishing the final clinical diagnosis in the most common diseases of infants, children with endocrine, hematological diseases and childhood infectious diseases;
- the treatment of the most common diseases of children period of newborn children with endocrine, hematologic diseases and childhood infectious diseases;
- protocol of first aid for the most common diseases of children of the newborn period, children with endocrine, hematological diseases and children's infectious diseases;
- prevention of the most common diseases of infants, children with endocrine, hematological diseases and childhood infectious diseases. Organization of anti-epidemic measures in the center of the most common infectious diseases in children. Calendar of preventive vaccinations;
- prognosis for the most common diseases of infants, children with endocrine, hematological diseases and childhood infectious diseases;
- the basic principles of medical ethics and deontology with professional dealing with a sick child and persons exercising care for the child.

**be able:**

- to determine the etiology and pathogenetic factors of neonatal diseases and the most common childhood non-communicable diseases;
- identify features of diseases of newborn children and put preliminary clinical diagnosis;
- to identify various clinical variants and complications of the most common diseases of childhood ;
- to determine the tactics of the patient with the most common diseases children's age ;
- demonstrate mastery of the principles of treatment, rehabilitation and prevention of diseases of newborns and the most common childhood non-communicable diseases ;
- demonstrate the ability to conduct medical records in hospital children's diseases ;

- plan examinations and interpret laboratory data in the typical course of diseases of newborns and the most common childhood non-communicable diseases ;
- to demonstrate mastery of moral and deontological principles of a medical specialist and the principles of professional subordination in a pediatric clinic ;
- to carry out differential diagnosis and to make the preliminary diagnosis of diseases of newborns and the most widespread children's non-communicable diseases ;
- put the diagnosis and to provide emergency assistance during major emergency conditions in infants and in children with the most common non-communicable diseases;
- to make a life forecast for the most common somatic diseases of childhood;
- to determine the etiological and pathogenetic factors of the most common infectious diseases of children;
- to distinguish the features of the clinical course of the most common infectious diseases of children;
- put the preliminary diagnosis of the most common infectious diseases of children;
- identify the tactics of keeping a child patient in the most common infectious disease;
- to determine the main directions of treatment of the most common infectious diseases in children;
- to determine preventive and anti-epidemic measures for the most common infectious diseases of children.

The developed program corresponds to the *educational-professional program (EPP)* and is focused on the formation of *competencies*:

**general (GC) - GC 1- GC 3 EPP:**

**GC 1.** Ability to abstract thinking, analysis and synthesis, the ability to learn and master modern knowledge.

**GC 2.** Ability to apply knowledge in practical situations.

**GC 3.** Knowledge and understanding of the subject area and understanding of professional activity.

**professional (PC) - PC 1- PC 9, PC 11, PC 16, PC 18 EPP:**

- Patient interviewing skills .
- Ability to determine the required list of laboratory and instrumental studies and evaluate their results.
- Ability to establish a preliminary and clinical diagnosis of the disease.
- Ability to determine the required mode of work and rest in the treatment of diseases.
- Ability to determine the nature of nutrition in the treatment of diseases.
- Ability to determine the principles and nature of disease treatment .
- Ability to diagnose emergencies .
- Ability to determine the tactics of emergency medical care.
- Skills provision of emergency medical care.
- Skills to perform medical manipulations.
- The ability to determine the tactics of keeping persons that are subject to clinical supervision.
- Ability to keep medical records.

According to the educational-professional program, the expected *program learning outcomes (PLO)* include the skills of **PLO 11, PLO 13-18, PLO 22, PLO 25, PLO 28, PLO 30, PLO 32, PLO 33, PLO 35, PLO 41 EPP** :

- Collect data on patient complaints, medical history, life history (including professional history), in a health care facility, its unit or at the patient's home, using the results of the interview with the patient, according to the standard scheme of the patient. Under any circumstances (in a health care facility, its unit, at the patient's home, etc.), using knowledge about the person, his organs and systems, according to certain algorithms:

- gather information on the overall condition of the patient (consciousness constitution) and the external appearance (examination of the skin, subcutaneous fat layer, palpation of lymph nodes, thyroid and mammary glands);

assess the psychomotor and physical development of the child;

- examine the condition of the cardiovascular system (examination and palpation of the heart and superficial vessels, determination of percussion boundaries of the heart and blood vessels, auscultation of the heart and blood vessels);

- examine the condition of the respiratory organs (examination of the chest and upper respiratory tract, palpation of the chest, percussion and auscultation of the lungs);

- examine the condition of the abdominal cavity (examination of the abdomen, palpation and percussion intestines, stomach, liver, spleen, palpation of the pancreatic gland, kidneys, organs of small pelvis, finger study of the rectum);

- examine the condition of the musculoskeletal system (examination and palpation); examine the state of the nervous system;

- examine the condition of the genitourinary system;

- assess the state of fetal development according to the calculation of fetal weight and auscultation of its heartbeat.

In the conditions of the health care institution, its subdivision and among the attached population:

- Be able to identify and record the leading clinical symptom or syndrome (according to list 1) by making an informed decision, using previous patient history, physical examination data, knowledge of the person, his organs and systems, adhering to relevant ethical and legal norms.

- Be able to establish the most probable or syndromic diagnosis of the disease (according to list 2) by making an informed decision, by comparing with standards, using previous patient history and examination of the patient, based on the leading clinical symptom or syndrome, using knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

In the conditions of a health care institution, its subdivision:

- Assign a laboratory and / or instrumental examination of the patient (according to list 4) by making an informed decision, based on the most probable or syndromic diagnosis, according to standard schemes, using knowledge about the person, his organs and systems, adhering to relevant ethical and legal norms.

- Carry out differential diagnosis of diseases (according to list 2) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient, knowledge of the person, his organs and systems, adhering to ethical and legal norms.

- Establish a preliminary clinical diagnosis (according to list 2) by making an informed decision and logical analysis, using the most probable or syndromic diagnosis, data from laboratory and instrumental examination of the patient,

conclusions of differential diagnosis, knowledge about a person, his organs and systems, adhering to the relevant ethical and legal norms.

- Determine the desired mode of work and rest in the treatment of disease (for list 2) in terms of health institution, at home and in the patient during medical evacuation in t. H. In field conditions, based on previous clinical diagnosis using knowledge about a person, his organs and systems, adhering to the relevant ethical and legal norms, by making an informed decision according to existing algorithms and standard schemes.

- Identify the necessary therapeutic nutrition in the treatment of disease (in list 2), in terms of health care facility, home of the patient and on the stages of medical evacuation in t. H. In field conditions on the basis of previous clinical diagnosis using knowledge of the man its bodies and systems, adhering to the relevant ethical and legal norms, by making an informed decision according to existing algorithms and standard schemes.

- Identify the nature of treatment (conservative, surgical) disease (for list 2), in terms of health care facility, home of the patient and on the stages of medical evacuation in t. H. In field conditions on the basis of previous clinical diagnosis using knowledge of man, his organs and systems, adhering to the relevant ethical and legal norms, by making an informed decision according to existing algorithms and standard schemes.

- Determine the principles of treatment of the disease (according to list 2), in a health care facility, at the patient's home and at the stages of medical evacuation, including field conditions, based on a preliminary clinical diagnosis, using knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms, by making an informed decision according to existing algorithms and standard schemes.

- Establish a diagnosis (according to list 3) by making an informed decision and assessing the condition of the person, under any circumstances (at home, on the street, health care facility, its units), including in emergencies, in the field conditions, in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

- Perform medical manipulations (according to list 5) in a medical institution, at home or at work on the basis of previous clinical diagnosis and / or indicators of the patient's condition , using knowledge about the person, his organs and systems, adhering to relevant ethical and legal norms, by adopting reasonable solutions and using standard techniques.

- To form, in the conditions of a health care institution, its division on production, using the generalized procedure of an assessment of a state of human health , knowledge of the person, its bodies and systems, adhering to the corresponding ethical and legal norms, by acceptance of the reasonable contingent, among the fixed contingent population: dispensary groups of patients; a group of healthy people, who are subject to dispensary supervision (infants, children, adolescents, pregnant women, representatives of the professions that have to undergo mandatory clinical examination).

- Organize holding of fixed contingent of population measures of secondary and tertiary prevention, using a generic procedure assess the state of health of humans (screening, preventive medical examination, request for medical help), knowledge of a person of organs and systems, adhering to appropriate ethical and legal norms , by making an informed decision, in the conditions of the health care institution, in particular: to form groups of dispensary supervision; to organize medical and health-improving measures differentiated from the group of medical examination.

Carry out in the conditions of a health care institution, its subdivision:

- detection and early diagnosis of infectious diseases (according to list2);
- primary anti-epidemic measures in the center of an infectious disease.

In the health care facility, or at the patient's home on the basis of the obtained data on the patient's health, using standard schemes, using knowledge about the person, his organs and systems, adhering to relevant ethical and legal norms, by making an informed decision:

- identify the tactics of inspection and secondary prevention patients, which are subject to clinical supervision;
- identify the tactics of inspection and primary prevention of healthy individuals who are subject to clinical supervision;

- calculate and assign the necessary products catering to children of the first year of life.

- To determine the presence and degree of limitations of life, type, degree and duration of disability with the issuance of relevant documents in a health care institution on the basis of data on the disease and its course, features of professional activity .

On the territory of service according to standard methods of descriptive, analytical epidemiological and medical-statistical researches:

- conduct screening to identify major non-communicable diseases;

- evaluate the dynamics and in comparison with the average static data of morbidity, including tonic non-communicable diseases, disability, mortality, integrated health indicators ;

- identify risk factors for the occurrence and course of diseases;

- to form risk groups of the population.

In the conditions of the health care institution, its subdivision and among the attached population:

- Be able to identify and record the leading clinical symptom or syndrome (according to list 1) by making an informed decision, using previous patient history , physical examination data, knowledge of the person, his organs and systems, adhering to relevant ethical and legal norms.

- To be able to establish the most probable or syndromic diagnosis of disease (for list 2) by adopting a reasoned decision by means of comparison with standards, using preliminary data patient history and data given patient, based on the leading clinical symptom or syndrome, using the knowledge of a person of bodies and systems, adhering to the relevant ethical and legal norms.

In the conditions of a health care institution, its subdivision:

- Assign a laboratory and / or instrumental examination of the patient (according to list 4) by making an informed decision, based on the most probable or syndromic diagnosis, according to standard schemes, using knowledge about the person, his organs and systems, adhering to relevant ethical and legal norms.

- Carry out differential diagnosis of diseases (according to list 2) by making an informed decision, according to a certain algorithm, using the most probable or syndromic diagnosis, laboratory and instrumental examination of the patient, knowledge of the person, his organs and systems, adhering to ethical and legal norms.

- Establish a preliminary clinical diagnosis (according to list 2) by making an informed decision and agile analysis, using the most probable or syndromic diagnosis, laboratory and instrumental examination data , conclusions of differential diagnosis, knowledge of the person, his organs and systems, adhering to relevant ethical and legal norms.

Determine the required mode of work and rest in the treatment of disease (the list 2), in terms of establishment health care, home of the patient and on the stages of medical evacuation in t. H. In field conditions, based on previous clinical diagnosis using knowledge of man, his organs and systems, adhering to the relevant ethical and legal norms, by making an informed decision according to existing algorithms and standard schemes.

To determine the necessary therapeutic food in the treatment of disease (in list 2), in terms of healthcare institution, the patient at home and during medical evacuation in t. H. In field conditions on the basis of previous clinical diagnosis using knowledge of the man, his bodies and systems, adhering to the relevant ethical and legal norms, by making an informed decision according to existing algorithms and standard schemes.

To determine the nature of the treatment (conservative, surgical) disease (for list 2), in terms of health care facility, home of the patient and on the stages of medical evacuation in t. H. In the field based on previous clinical diagnosis using knowledge of the man , its bodies and systems, adhering to the relevant ethical and legal norms, by making an informed decision according to existing algorithms and standard schemes.



To determine the principles of treatment of disease (in list 2), in terms of establishment of health, home and the patient during medical evacuation in t. H. The field, on the basis of previous clinical diagnosis using knowledge of a person of organs and systems , adhering to the relevant ethical and legal norms, by making an informed decision according to existing algorithms and standard schemes.

Establish a diagnosis (according to list 3) by making an informed decision and assessing the human condition, under any circumstances (at home, on the street, health care facility, its units), including in an emergency, in the field , in conditions of lack of information and limited time, using standard methods of physical examination and possible anamnesis, knowledge about the person, his organs and systems, adhering to the relevant ethical and legal norms.

In the conditions of a health care institution or its subdivision according to standard methods:

- to carry out the selection and use of standardized clinical protocols for providing medical care, which developed on the basis of evidence-based medicine;
- participate in the development of local protocols for medical care;
- to carry out quality control of medical care on the basis of statistical data, expert evaluation and data of sociological studies of the use of indicators of structure, process and results of activities;
- identify factors that hinder the improvement of the quality and safety of medical care.

## **2. The program of the discipline**

The educational process is organized according to the European Credit Transfer and Accumulation System (ECTS).

The curriculum of the discipline "Pediatrics" in the 5th year consists of the following blocks:

**Block 1.** Neonatology, diseases of the blood and endocrine system in children;

**Block 2.** Children's infectious diseases.

### **Block 1. Neonatology, diseases of the blood system and endocrine system in children**

#### *Section 1. Neonatology*

**Topic 1. Organization of neonatal care in Ukraine. Medical care for a healthy newborn baby.**

Organization of neonatal care in Ukraine. Medical care for a healthy newborn baby. Issues of bioethics in modern neonatology.

**Topic 2. Premature babies. Children with delayed fetal development.**

Criteria for determining prematurity. Features adaptation of prematurely born children. Etiological factors of prematurity. Anatomical and physiological features. Classification of premature children for the weight of the body at birth and the relation of physical development and gestational age. Evaluation of morphological and functional neuro-maturity prematurely born children (on a scale Ballard). Principles of nursing premature babies in the maternity hospital and at the second stage of nursing. Features of breastfeeding premature babies. Emergency care for major emergencies in premature infants: hypothermia, respiratory failure, hypoglycemia. Intrauterine growth retardation: causes, postnatal diagnosis, treatment, prevention.

**Topic 3. Asphyxia of the newborn. Childbirth trauma.**

Neonatal

asphyxia : etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis. Primary resuscitation of newborns.

Childbirth trauma: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.

**Topic 4. Respiratory distress syndrome of newborns (RDS). Neonatal pneumonia .**

Respiratory distress syndrome

of newborns: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.

Neonatal pneumonia : etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.

**Topic 5. Hemolytic disease of the newborn (GHN). Hemorrhagic disease of newborns.**

Hemolytic disease

of newborns: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.

Hemorrhagic disease

of newborns: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.

**Topic 6. Intrauterine infections of newborns (TORCH-infections).**

TORCH-infections

of newborns: etiology, pathogenesis, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.

**Topic 7. Bacterial infections of newborns.** Inflammatory diseases of the skin and subcutaneous fatty tissue of newborns, the disease umbilical cord, umbilical wounds and umbilical vessels: classification, etiology, pathogenesis, clinical manifestations, diagnosis, differential diagnosis, treatment, prevention, prognosis. Neonatal sepsis : definition, classification, etiology, pathogenesis, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.

*Section 2. Diseases of the blood system in children*

**Topic 8. Anemia in children (deficient, posthemorrhagic, hemolytic, due to impaired hematopoiesis)**

Anemia in children (deficient, posthemorrhagic, hemolytic, due to hematopoietic disorders): definition, etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.

**Topic 9. Leukemias and lymphomas in children.**

Leukemias in children: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.

Lymphomas in children: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis.

**Topic 10. Hemorrhagic diseases in children.**

Coagulopathies (hemophilia): in children: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis. Thrombocytopenia (thrombocytopenic idiopathic purpura) in children: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis. Hemorrhagic vasculitis: in children: etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis. Emergency care for bleeding in children.

### ***Section 3. Diseases of the endocrine system in children***

#### **Topic 11. Diabetes mellitus in children.**

Diabetes mellitus in children: definition, etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis. Acute and chronic complications of diabetes mellitus in children. Hyperglycemic ketoacidosis and hypoglycemic coma in children: causes occurrence, pathogenesis, clinical manifestations, diagnosis, differential diagnosis, providing emergency assistance, prevention.

#### **Topic 12. Diseases of thyroid cancer in children.**

Classification of thyroid diseases in children. Etiology, pathogenesis, clinic, diagnosis, differential diagnosis, treatment, prevention and prognosis of diffuse toxic goiter, hypothyroidism, autoimmune thyroiditis, endemic goiter in children. Emergency care for thyrotoxic crisis in children.

**Topic 13. Diseases of the hypothalamic-pituitary system and gonads in children.** Etiology, pathogenesis, classification, clinical picture, diagnosis, differential diagnosis, treatment, prevention, prognosis pathology of growth and pathology of sexual glands in children.

#### **Topic 14. Obesity in children**

Definition, etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, treatment, prevention, prognosis of obesity in children.

### **Block 2. Children's infectious diseases**

#### **Topic 1. Measles. Rubella. Chicken pox. Herpes Zoster.**

Etiology, epidemiology, pathogenesis, clinical picture of typical forms, complications. Congenital rubella. Principles of treatment. Specific prevention. Anti-epidemic measures in the center of infection.

#### **Topic 2. Scarlet fever. Pseudotuberculosis.**

Etiology, epidemiology, pathogenesis, clinic of typical forms, complications. Principles of treatment. Anti-epidemic measures in the center of infection.

#### **Topic 3. Diphtheria. Infectious mononucleosis.**

Etiology, epidemiology, pathomorphological features of different forms. Classification, clinic of typical forms and complications. Diagnosis. Principles of treatment. Specific prevention and anti-epidemic measures in the center of infection.

#### **Topic 4. Pertussis. Mumps infection.**

Etiology. Epidemiology. Classification. Clinical and pathogenetic features of different forms. Complication. Diagnosis. Principles of treatment. Specific prevention and anti-epidemic measures in the center of infection.

**Topic 5. Meningococcal infection.**

Etiology, epidemiology, pathogenesis. Classification. Clinic of various forms. Complication. Diagnosis. Effects. Principles of treatment.

**Topic 6. Polio. Enterovirus infection.**

Etiology, epidemiology, pathogenesis. Classification. Clinic of various forms. Diagnosis. Effects. Principles of treatment. Specific prevention and anti-epidemic measures in the center of infection.

**Topic 7. Acute respiratory viral infections (influenza, parainfluenza, adenoviral, respiratory syncytial, rhinovirus infection)**

Etiology, epidemiological features, pathogenesis. Clinical forms. Complication. Diagnosis. Principles of treatment and prevention.

**Topic 8. Acute intestinal infections (shigellosis, salmonellosis, Escherichia coli, intestinal yersiniosis, rotavirus infection).**

Etiology, epidemiology, pathogenesis. Classification. Clinic of typical forms in children of different ages. Complication. Laboratory diagnostics. Principles of treatment and prevention.

**Topic 9. Viral hepatitis A, B, C, D and others**

Etiology, epidemiological features, pathogenesis. Classification. Clinic of various forms. Laboratory diagnostics. Principles of treatment and prevention.

**Topic 10. HIV/AIDS in children. AIDS-opportunistic infections (pneumocystis, candidiasis, cryptococcal infection and others).**

Epidemiological features in children. Clinical and laboratory diagnosis of AIDS-opportunistic infections. Principles of treatment. Prevention of congenital HIV infection.

**Topic 11. TORCHinfections (toxoplasmosis, cytomegalovirus infection, herpes infection).**

Etiology, epidemiology, pathogenesis. Clinic of acquired and congenital forms. Laboratory diagnostics. Principles of treatment and prevention.

**The structure of the discipline  
"PEDIATRICS"**

Names of blocks and topics	Hours				
	Total	Lectures	Practical classes	Independent work	
				Individual	Independent
<b>BLOCK 1. Neonatology, diseases of the blood system and endocrine system in children</b>					
<b>Section 1. Neonatology</b>					

1 Organization of neonatal care in Ukraine. Medical care for a healthy newborn baby.	5		3		2
2. Premature babies. Children from delayed fetal development.	5		3		2
3. Asphyxia of newborns. Maternity trauma of newborns	7	2	3		2
4. Respiratory distress syndrome of newborns. Neonatal pneumonia	5		3		2
5. Hemolytic disease of newborns. Hemorrhagic neonatal disease .	5		3		2
6. Intrauterine infections of newborns (TORCH-infections)	5		3		2
7. Bacterial infections newborns	5		3		2
<b>Section 2 Diseases of the blood system in children</b>					
8. Anemia in children (deficient, posthemorrhagic, hemolytic, due to a violation of hematopoiesis)	7	2	3		2
9. Leukemias and lymphomas in children	5		3		2
10. Hemorrhagic diseases in children	5		3		2
<b>Section 3. Diseases of the endocrine system in children</b>					
11. Diabetes mellitus in railway and Tay	7	2	3		2
12. Thyroid disease glands in children	6		4		2
13. Diseases of the hypothalamic pituitary system and sex glands in children	7		4		3
14. Obesity in children	6		4		2
Individual work: Patient supervision , writing and defense medical history	6			6	
<b>Final control № 1</b>	<b>10</b>		<b>5</b>		<b>5</b>
<b>Total hours from block 1</b>	<b>96</b>	<b>6</b>	<b>50</b>	<b>6</b>	<b>34</b>
<b>BLOCK 2. Children's infectious diseases</b>					
1. Measles, rubella, chicken pox, herpes zoster	4		2		2
2. Scarlet fever, pseudotuberculosis	4		2		2
3. Diphtheria, infectious mononucleosis	4		2		2

4. Pertussis, mumps infection	4		2		2
5. Meningococcal infection	4		2		2
6. Poliomyelitis, enterovirus infection	4		2		2
7. ARVI	4		2		2
8. Acute intestinal infections	6	2	2		2
9. Viral hepatitis	4		2		2
10. HIV / AIDS in children. AIDS opportunistic infections	5	2			3
11. TORCH-infection	3				3
12. Curation of patients, writing and protection of medical history	4			4	
<b>Final control № 2</b>	<b>4</b>		<b>2</b>		<b>2</b>
<b>Total hours from block 2</b>	<b>54</b>	<b>4</b>	<b>20</b>	<b>4</b>	<b>26</b>
<b>TOTAL HOURS FROM THE DISCIPLINE</b>	<b>150</b>	<b>10</b>	<b>70</b>	<b>10</b>	<b>60</b>
				<b>70</b>	

#### 4. The content of the discipline

##### 4.1. Thematic plan of lectures

№	Topics	Number of hours
<b>BLOCK 1. Neonatology, diseases of the blood system and endocrine system in children</b>		
1.	Asphyxia of newborns. Maternity trauma of newborns	2
2.	Anemia in children: deficient, posthemorrhagic, hemolytic, due to a hematopoietic disorders	2
3.	Diabetes mellitus in children	2
<b>Total from block 1</b>		<b>6</b>
<b>BLOCK 2. Children's infectious diseases</b>		
1.	Acute intestinal infections in children.	2
2.	HIV / AIDS in children. AIDS opportunistic infections	2
<b>Total from block 2</b>		<b>4</b>
<b>TOTAL FROM THE DISCIPLINE</b>		<b>10</b>

##### 4.2. Thematic plan of practical classes

№	Topics	Number of hours
<b>BLOCK 1. Neonatology, diseases of the blood system and endocrine system in children</b>		
1.	Organization of neonatological care in Ukraine. Medical care for a healthy newborn baby	3

2.	Features adaptation of prematurely born infants. Organization of nursing and nursing prematurely born children	3
3.	Asphyxia newborn maternity injury newborns	3
4.	Respiratory distress syndrome and pneumonia in newborns	3
5.	Hemolytic and hemorrhagic diseases of newborns	3
6.	Intrauterine infections of the newborn (TORCH -infections)	3
7.	Bacterial infections in newborns	3
8.	Anemia in children: deficient, posthemorrhagic, hemolytic, due to a hematopoietic disorders	3
9.	Hemorrhagic diseases in children	3
10.	Leukemias and lymphomas in children	3
11.	Diabetes mellitus in children	3
12.	Diseases of the thyroid gland in children	4
13.	Diseases of the hypothalamic-pituitary system and genitals glands in children	4
14.	Obesity in children	4
15.	Final control of including Test-control of theoretical training Control of practical skills Solving situational probl ems Interview	5
<b>Total from block 1</b>		<b>50</b>
<b>BLOCK 2. Children's infectious diseases</b>		
1.	Measles, rubella, chicken pox, herpes zoster	2
2.	Scarlet fever, pseudotuberculosis	2
3.	Diphtheria, infectious mononucleosis	2
4.	Pertussis, mumps infection	2
5.	Meningococcal infection	2
6.	Polio, enterovirus infection	2
7.	ARVI	2
8.	Acute intestinal infections	2
9.	Viral hepatitis	2
10.	Final control of including Test-control of theoretical training Control of practical skills Solving situational problems Interview	2
<b>Total from block 2</b>		<b>20</b>
<b>TOTAL FROM THE DISCIPLINE</b>		<b>70</b>

### 4.3. Independent work

The main types of independent work of students are:

- Preparation for practical classes
- Execution of individual work
- Mastering the topics that are made for independent work
- Preparation for the final control

<b>№ s / n</b>	<b>Topic title (or content of the work)</b>	<b>Number of hours</b>
<b>BLOCK 1. Neonatology, diseases of the blood system and endocrine system in children</b>		
1.	Preparation for practical classes	29
2.	Performing individual work: curation of patients, writing and protection of medical history	6
3.	Preparation for the final control № 1	5
<b>Total from block 1</b>		<b>40</b>
<b>BLOCK 2. Children's infectious diseases</b>		
1.	Preparation for practical classes	18
2.	Performing individual work: curation of patients, writing and protection of medical history	4
3.	Mastering the topics that are made for independent work	6
4.	Preparation for final control № 2	2
<b>Total from block 2</b>		<b>30</b>
<b>TOGETHER FROM THE DISCIPLINE</b>		<b>70</b>

#### **Individual tasks**

##### **BLOCK 1: Neonatology, diseases of the blood and endocrine system in children**

Curation of the patients with writing of a Case history.

##### **BLOCK 2: Children's infectious diseases**

Curation of the patients with writing of a Case history.

#### **Typical test problems to be solved in practical classes**

1. In full-term boy after discharge from the hospital during the initial patronage pediatrician discovered symmetrical swelling of breasts without changes in the skin on them, swelling of the scrotum. Body temperature 36.5 °C. The baby is calm, the mother's breasts suck actively. What condition should you think about?

- A** Sexual crisis of the newborn
- B** Mastitis of the newborn
- C** Pathology of the urogenital system
- D** Disorders of electrolyte metabolism
- E** Diseases of the endocrine system

2. A full-term boy was born with a body weight of 3200 g, a body length of 52 cm. On examination on day 3, the skin became yellowish. The child is actively sucking, sleep is not disturbed. The abdomen is soft, the liver protrudes 2 cm from under the costal arch. In the blood test: hemoglobin - 200 g / l, erythrocytes - 5.5 T / l, platelets - 200 G / l, total bilirubin - 52 µmol / l. What condition should you think about?

- A** Physiological jaundice
- B** Congenital hepatitis
- C** Hemolytic disease
- D** Hemorrhagic disease
- E** Congenital cirrhosis



3. The girl on the 5th day of life had bloody discharge from the vagina. Objectively: the child is active, sleep is restless. Above the lungs puerile breathing, heart sounds rhythmic, sonorous. The abdomen is soft, the liver protrudes from under the costal arch by 2 cm. Stool - 4 times a day, without pathological impurities. What is the most likely diagnosis?

- A* Physiological metrorrhagia of the newborn
- B* Desquamative vulvovaginitis
- C* Physiological intestinal dysbacteriosis
- D* Hemorrhagic disease of the newborn
- E* Uric acid infarction of the newborn

4. A child aged 3 days, born with a weight of 2900 g urgently, the examination revealed microcephaly, cataracts of both eyes, loose hemorrhagic rash on the body, hepatosplenomegaly. The child does not respond to sound stimuli. What intrauterine infection suffered child?

- A* Rubella
- B* Cytomegalovirus infection
- C* Viral hepatitis B
- D* Toxoplasmosis
- E* Chlamydia

5. In premature babies, is born with signs of intrauterine infection in the age of 1 year revealed chorioretinitis. What is the most probable cause of the disease ?

- A* Toxoplasmosis
- B* Syphilis
- C* Viral hepatitis B
- D* Mycoplasmosis
- E* Chlamydia

#### **4.4. Ensuring the educational process**

1. Multimedia projectors, computers, screens for multimedia presentations, lecture presentations.
2. Demonstration screens, laptops, files in Power Point and Word with tasks "Krok-2" for practical and final classes.
3. Exam tickets.

### **5. Final control**

#### **List of questions for the final control of block 1.**

##### **Neonatology, diseases of the blood and endocrine system in children**

1. Organization of neonatal care in Ukraine.
2. Medical care for a healthy newborn child.
3. The medical care for a newborn baby with low weight body at birth.
4. Definition of "prematurity". Classification of premature infants according to the indicator " body weight at birth" and the ratio of physical development and gestational age.
5. Reasons for delay of intrauterine growth retardation. Features of adaptation of children with ZVUR and principles of nursing.
6. Assessment of morphological and neuro-functional maturity of premature infants (on the Ballard scale).
7. Features of thermoregulation of premature babies, methods of hypothermia prevention .

8. Prevention and treatment of hypoglycemia in premature infants.
9. Mechanisms of development of hyperbilirubinemia of premature infants, possible consequences. Driving tactics .
10. Emergency care for apnea in premature babies. Indications for the use of artificial lung ventilation . Complications of long-term mechanical ventilation: bronchopulmonary dysplasia, retinopathy of prematurity .
11. Stages of nursing premature babies. Principles of transportation. Criteria for discharge from the hospital. Peculiarities of dispensary observation of premature children in the polyclinic. Prevention of anemia, lactase deficiency, dysbacteriosis, rickets.
12. Principles of breastfeeding premature infants. Choose how feeding in dependence on gestational age and condition of the child.
13. Etiological, clinical and laboratory criteria for the diagnosis of " neonatal asphyxia ", the pathogenesis of asphyxia. Criteria for the severity of asphyxia.
14. Primary resuscitation of newborns and post-resuscitation care for newborns.
15. Definition of the term "birth trauma" and factors of its development.
16. Childbirth injuries of soft tissues. Adiponecrosis. Damage klyuchychno-sternocleidomastoid muscle. The differential diagnosis of labor tumor and cephalhematoma.
17. Childbirth injury of the spinal cord and humeral plexus. Paresis and paralysis Duchamp-Erb, Degerin-Klumpke.
18. Differential diagnosis of intracranial hemorrhage of hypoxic and traumatic origin in newborns.
19. The concept of the surfactant system of the lungs. Factors of RDS development in newborns. Methods of antenatal prevention.
20. Assessment of the severity of respiratory failure in RDS. RDS diagnostics .
21. Principles of treatment of RDS in newborns.
22. Classification of pneumonia in newborns in dependence on the way and duration of infection. Etiology.
23. Risk factors for pneumonia in newborns. Pathogenesis. Features course of pneumonia in newborns in dependence on the path of infection and etiology.
24. Principles of diagnosis and treatment of pneumonia in newborns. Features of etiotropic therapy.
25. Erythrocyte antigenic systems of human blood . Etiology, pathogenesis of GHN. Classification. Clinical and laboratory criteria for anemic, icteric and edematous forms of GHN. Stages of bilirubin encephalopathy.
26. Methods of antenatal diagnosis and prevention of hemolytic disease of the fetus. Treatment of hemolytic disease of newborns. Indications to conduct operations replaceable transfusion of blood. Technique of operation and its possible complications.
27. Features of the hemostasis system in newborns. Factors in the development of hemorrhagic disease. Clinical features of early, classical and late forms of hemorrhagic disease.
28. Differential diagnosis of hemorrhagic disease and "swallowed blood" syndrome. Emergency care for gastrointestinal bleeding. Treatment and prevention of hemorrhagic disease.
29. Definition of the term "TORSN-infection". Risk factors for the development of VUI. The nature of the lesion in VUI depending on the timing and route of infection of the fetus. Methods of early diagnosis and prevention of VUI.
30. Clinical manifestations of VUI depending on the etiology (congenital toxoplasmosis, rubella, neonatal herpes and cytomegalovirus infection). Principles of VUI treatment . Etiotropic and immunotherapy.

31. Omphalitis. Etiology. Pathogenesis. Classification. Diagnosis. Prevention and treatment.

32. Vesiculopustulosis, neonatal vesicles, exfoliative Ritter's dermatitis. Etiology, clinic, treatment. Prevention.

33. Definition of the term "neonatal sepsis". Development factors. Classification, etiology, clinical and laboratory diagnostic criteria. Principles of treatment and prevention of neonatal sepsis.

34. Issues of bioethics in modern perinatology and neonatology.

35. Definition of anemia. Classification of anemias in children.

36. Iron deficiency anemia in children. Causes, clinic, diagnosis, differential diagnosis. Treatment and prevention of iron deficiency anemia in children.

37. Posthemorrhagic anemia in children. Etiology, pathogenesis, diagnosis. Emergency care for bleeding.

38. Leukemia in children. Causes. Classification of leukemias. Its connection with the hematopoietic scheme. Clinical variants, diagnosis and differential diagnosis of acute lymphoblastic leukemia in children.

39. Principles of treatment of leukemias in children (acute lymphoblastic leukemia, acute myeloid leukemia, chronic myeloid leukemia). Cytostatics. Classification of drugs used as cytostatics. Indications for their use. Complications of cytostatic therapy (immediate, delayed, remote).

40. Classification of hemoblastosis. Lymphogranulomatosis in children. Etiology, pathogenesis, stages of the disease.

41. Diagnosis, differential diagnosis of lymphogranulomatosis in children with other lymphadenopathy, lymphadenitis, hemoblastosis. Clinic, treatment, prognosis of lymphogranulomatosis in children. Emergency care for superior vena cava compression syndrome.

42. Classification of hemorrhagic diseases in children.

43. Hemophilia A and B. Etiology, pathogenesis, clinic, diagnosis. Prognosis in children. Zamisna therapy while providing an immediate help patients to hemofiliyu. Antihemophilic drugs (concentrates of blood coagulation factors, SZP) and their use.

44. Hemorrhagic vasculitis in children. Etiology, pathogenesis, clinical forms, diagnosis, differential diagnosis, treatment, prognosis.

45. Thrombocytopenic purpura in children. Etiology, pathogenesis, clinic, diagnosis, differential diagnosis, treatment, prognosis. Emergency care for bleeding.

46. Diabetes mellitus in children. Etiology, pathogenesis, clinic, diagnosis. Peculiarities of the course of diabetes mellitus in early and adolescence. Criteria for compensation of diabetes mellitus in children.

47. Regime of insulin therapy of diabetes mellitus in children. Insulin preparations.

48. Peculiarities of diet in compensated and uncompensated diabetes mellitus in children.

49. Hyperglycemic ketoacidotic coma in children. Causes, clinic, diagnosis, emergency care.

50. Hypoglycemic coma in children. Causes, clinic, diagnosis, emergency care.

51. Differential diagnosis of hyperglycemic and hypoglycemic coma in children.

52. Growth disorders in children. Pituitary dwarfism. Causes, clinic, differential diagnosis. Treatment and prognosis.

53. Obesity in children. Causes, clinical forms. Principles of complex treatment of various clinical forms of obesity in children. Prevention.

54. Autoimmune thyroiditis in children. Etiology, pathogenesis, clinic, diagnosis, differential diagnosis, treatment, prognosis.

55. Diffuse toxic goiter in children. Etiology, pathogenesis, Clinic, diagnostics, differential diagnosis. Treatment. Forecast.

56. Endemic goiter in children. Causes, clinic, diagnosis, treatment, prevention.

57. Hypothyroidism in children. Etiology, pathogenesis, clinic, early diagnosis. Treatment, prognosis.

58. Clinic and diagnosis of congenital hypothyroidism in children. Treatment. Forecast.

59. Clinic and diagnosis of adrenogenital syndrome in children. Treatment. Emergency care for the losing form of adrenogenital syndrome.

60. Disorders of sexual development in boys and girls. Etiology, pathogenesis, clinic, diagnosis, differential diagnosis, treatment.

61. Differential diagnosis of variants of intersexualism. Research methods. Principles of treatment.

### **The list of practical skills, the acquisition of which is controlled during the final control of unit 1**

#### **I. Analysis of laboratory and instrumental studies in children**

1. General clinical blood test
2. General clinical analysis of urine
3. General analysis of feces
4. Blood protein and its fractions, acute phase parameters
5. Glucose Blood
6. Lipid profile of blood
7. Blood electrolytes
8. Blood transaminases
9. Creatinine, blood urea
10. Total blood bilirubin and its fractions, analyze the Polachek curve
11. Coagulogram
12. ECG
13. Radiation study CNS of the chest and abdominal cavity, urinary system, thyroid gland, skull, bones, joints.
14. Microbiological study of biological fluids and secretions
15. Polymerase chain reaction, enzyme-linked immunosorbent assay
16. General analysis of sternal punctate
17. General analysis of cerebrospinal fluid

#### **II. Medical manipulations in pediatrics**

1. To determine blood groups, rhesus affiliation in children
2. Perform artificial respiration, indirect heart massage in children
3. Measure blood pressure in children
4. Conduct the primary toilet of the newborn
5. Carry out ECG recording in children
6. Carry out injections of drugs in children

#### **III. Providing assistance during emergency conditions in children**

1. Asphyxia of newborns
2. Acute respiratory failure in newborns

3. Convulsive syndrome in children
4. Bleeding in children
5. Hemorrhagic shock in children
6. Hyperglycemic ketoacidotic and hypoglycemic coma in children
7. Thyrotoxic crisis in children

**List of questions for the final control of block 2.  
Children's infectious diseases**

1. Features of the infectious process and immunity in children. Prevention of childhood infectious diseases (specific and nonspecific). Organization of preventive vaccinations for children.
2. Diphtheria. Etiology, epidemiology. Pathogenesis of various clinical forms. Diphtheria of the tonsils. Clinical forms. Complication. Diphtheria laryngotracheitis. Diphtheria of the nose, eyes, genitals, skin. Diagnosis. Treatment of diphtheria. Diphtheria serum, conditions of its effective action, method of administration. Prevention of diphtheria.
3. Scarlet fever. Etiology, epidemiology, pathogenesis. Classification of scarlet fever. Clinical picture of typical and atypical forms .. Complications. Treatment. Prevention.
4. Measles. Etiology, epidemiology, pathogenesis. Clinic of typical and atypical forms. Complication. Basic principles of treatment. Measles prevention.
5. Rubella. Etiology, pathogenesis. Clinical picture, diagnosis. Congenital rubella. Treatment. Prevention.
6. Pertussis. Etiology. Epidemiology. Pathogenesis. Clinic. Features of whooping cough in infants. Complication. Laboratory methods of diagnosis. Causal and pathogenetic therapy of patients for whooping cough. Prevention.
7. Chicken pox. Etiology, epidemiology, pathogenesis. Clinical picture of typical and atypical forms of chickenpox. Complication. Treatment, prevention.
8. Herpes Zoster. Diagnosis. Treatment.
9. Herpetic infections (simple herpes). Etiology, ways of infection. Clinical forms, diagnosis. Treatment.
10. Mumps infection. Etiology, epidemiology. Classification. Clinical picture of various forms of mumps (mumps, submaxillitis, sublingualitis, pancreatitis, orchitis, meningitis, etc.). Treatment. Prevention.
11. Influenza. Clinical course. Features in young children. Complications, their pathogenesis. Treatment. Prevention.
12. Parainfluenza and respiratory syncytial infections in children. Features of clinical manifestations. Treatment, prevention.
14. Adenovirus infection. Ways of transmission. Features of the course in young children. Treatment. Prevention.
11. Sore throats in children. Etiological features depending on age. Clinic. Diagnosis. Differential diagnosis. Treatment. Tactics of keeping patients with sore throats at home.
12. Meningococcal infection. Etiology. Epidemiology. Pathogenesis. Clinical picture of meningococcal meningitis. Features of the course in children of the 1st year of life.
13. Meningococemia, clinical picture. Laboratory diagnostics. Basic principles of treatment. Prevention. Emergency conditions at meningococcus infection (infectious toxic shock, swelling of the brain), diagnostics, treatment in the prehospital phase and in the hospital.

14. Infectious mononucleosis. Etiology. Clinical picture. Laboratory methods of diagnosis. Basic principles of treatment.
19. Poliomyelitis. Etiology. Clinic. Treatment. Prevention.
20. Enterovirus infection. Etiology. Epidemiology. Clinical forms. Diagnosis. Treatment. Prevention.
21. Shigellosis in children. Incidence in different age groups. Clinic, diagnosis. Treatment. Prevention.
22. Salmonellosis in children. Etiology, pathogenesis. Clinical forms. Treatment. Prevention.
23. Escherichia coli in children. Etiology. Clinical features in children of different ages depending on the pathogen. Treatment. Prevention.
24. Acute intestinal infections in newborns. Etiological structure. Clinical features. Diagnosis. Treatment.
25. Pseudotuberculosis. Epidemiological features in children. Pathogenesis. Clinic. Diagnosis. Treatment, prevention.
26. Intestinal yersiniosis . Features of epidemiology in children of different ages. Pathogenesis. Clinical forms. Diagnosis. Treatment. Prevention.
27. Rotavirus infection. Etiology, epidemiology, pathogenesis. Clinical picture. Treatment.
28. Viral hepatitis A. Etiology. Clinical picture in children. Laboratory diagnostics. Treatment. Prevention.
29. Viral hepatitis B. Etiology, pathogenesis. Features of the course in young children. Laboratory diagnostics. Principles of therapy.
30. Features of diagnosis and course of viral hepatitis C, D, E and others in children.
31. HIV / AIDS in children. Epidemiology. Clinic. Diagnosis. Treatment. Prevention.
32. TORCH infections: toxoplasmosis, rubella, cytomegalovirus infection, herpes infection. Characteristics of pathogens, epidemiology, pathogenesis of congenital and acquired forms, clinical manifestations depending on the route and timing of infection. Laboratory diagnosis of acute, reactivated and latent forms. Principles of treatment and prevention.

**The list of practical skills, the acquisition of which is controlled during the final control of block 2. Children's infectious diseases**

**Analysis of laboratory and instrumental research**

1. The general analysis of blood
2. General analysis of urine
3. General analysis of cerebrospinal fluid
4. Coprogram
5. Serological reactions in infectious diseases
6. Bacteriological study of biological fluids and secretions
7. Immunological markers of infectious diseases
8. Blood bilirubin and its fractions
9. Alkaline phosphatase, thymol test, blood transaminases .

**"0" version of the exam ticket**

**Petro Mohyla Black Sea National University**

Educational qualification level - master

Field of knowledge: 22 Health care  
specialty 222 Medicine

Academic discipline - **PEDIATRICS**

**Option № 0**

1. Principles of breastfeeding of premature babies. The choice of feeding method depending on the gestational age and condition of the child. - **maximum number of points - 20.**

2. Adenovirus infection. Ways of transmission. Features of the course in young children. Treatment. Prevention. - **maximum number of points - 20.**

3. Determination of blood groups and Rh factor in children - **the maximum number of points - 20.**

4. General analysis of cerebrospinal fluid - **the maximum number of points - 20.**

*Approved at the meeting of the Department of "therapeutic and surgical disciplines",  
the protocol № from " " 2021. \_\_\_\_\_*

**Head of the Department, Doctor of Medicine, Prof. Zack M.Yu.**

**Examiner Associate Professor Chernyshov O.V.**

**An example of the final control work on block 1**

**Solving problems Krok-2**

1. In a baby with blood group A (II) Rh positive, born from the first pregnancy, the mother's blood group 0 (I) Rh negative, on the first day there was jaundice. The level of bilirubin in umbilical cord blood is  $60 \mu\text{mol} / \text{l}$ , for 2 days -  $290 \mu\text{mol} / \text{l}$  due to the indirect fraction. Hb -  $100 \text{ g} / \text{l}$ , erythrocytes -  $2.8 \text{ T} / \text{l}$ . Diagnosed with hemolytic disease of the newborn. Choose treatment tactics ?

**A** Replacement transfusion of erythrocyte mass 0 (I) Rh positive and plasma AB (IV)

**B** Blood transfusion A (II) Rh positive

**C** Replacement blood transfusion of group A (II) Rh positive

**D** Phototherapy

**E** Detoxification therapy

2. The child on the 10th day of life increased jaundice, increased intoxication, weight loss. Pregnancy and influenza at 6-7 weeks. Jaundice with a greenish tinge, hepatolienal syndrome, dilation of the venous network on the abdominal wall. Urine is dark, stools are acholic. Total bilirubin -  $180 \mu\text{mol} / \text{l}$ , direct -  $160 \mu\text{mol} / \text{l}$ , AST, ALT – normal, Hb -  $180 \text{ g} / \text{l}$ , er. -  $4.5 \text{ T} / \text{l}$ . Specify the genesis of jaundice?

**A** Mechanical

**B** Conjugation

**C** Parenchymal

**D** Hemolytic

**E** Mixed

3. The newborn on the 8th day of life appeared intoxication, exsiccosis, hyperthermia, changes in the skin of the torso and extremities in the form of flaccid blisters, cracks, wetting. The skin resembles boiled water. In the blood test - leukocytosis, shift to the left, accelerated ESR. During the pregnancy in mothers was pyoderma, exacerbation of chronic sinusitis. Your probable diagnosis?

- A** Ritter's exfoliative dermatitis
- B** Pseudofurunculosis
- C** Phlegmon of the newborn
- D** Vesicles of the newborn
- E** Vesiculopustulosis

4. After 7 days of life newborn hospitalized with symptoms of intoxication complicated nasal breath type "dry wheezing" hepatolienal syndrome, neurological disorders, vesicular rash on the trunk, palms, soles at infiltrated background, who left after pulling copper-red surface. What infection can be suspected?

- A** Syphilis
- B** Rubella
- C** Toxoplasmosis
- D** Cytomegalovirus infection
- E** Herpes infection

5. The newborn from the first pregnancy, weighing 3500 g from the first day, jaundice, lethargy, decreased reflexes. Objectively: yellowing of the skin of the II century. with a saffron shade, liver + 2 cm, spleen +1 cm. Urine and feces - yellow. In the analysis of blood: Hb - 100 g / l, er. -3.2 T / l, lake.- 18.7 G / l, blood of mother 0 (I) Rh neg., Blood of child A (II) Rh pos. Bilirubin - 170 μmol / l, the fraction is indirect. The level of ALT, AST - to normal. What

the disease is likely in a child?

- A** Hemolytic disease of the newborn, AB0-conflict
- B** Intrauterine hepatitis
- C** Hemolytic disease of the newborn, Rh-conflict
- D** Atresia of the biliary tract
- E** Physiological jaundice

6. A newborn child born at 35 weeks weighing 2300 g, with an Apgar score of 6 - 8 points, at the age of 7 days showed signs of active encephalitis. It is known that the mother during pregnancy was determined by a high titer of anticytomegalovirus antibodies and its increase in dynamics. Specific treatment was performed. What results of the child's examination are more likely to confirm the suspicion of acute cytomegalovirus encephalitis?

- A** Diagnostic titer of specific IgM antibodies + positive polymerase chain reaction.
- B** High titer of specific IgG antibodies + positive polymerase chain reaction.
- C** Enhancement of all Ig classes
- D** Sufficiently detected increase in antibodies in the mother
- E** Detection of petrifications and cysts on the neurosonogram.

7. In a newborn baby on the mucous membrane of the mouth (cheeks, tongue, palate, gums) there are multiple dot-like plaques resembling semolina or cheese, then merge to form white films of various sizes and shapes, which are easily removed with a tampon, leaving a red shiny mucous shell. What diagnosis can be made?

- A** Candidal stomatitis
- B** Aphthous stomatitis
- C** Red flat herpes
- D** Bubbles
- E** Herpes of the mucous membranes

## 6. Evaluation criteria and tools for diagnosing learning outcomes



## Control methods

- **Survey (testing of theoretical knowledge and practical skills).**
- **Test control.**

**Current control.** Testing in practical classes of theoretical knowledge and the acquisition of practical skills, as well as the results of independent work of students. Supervised by teachers according to the specific purpose of the curriculum. Assessment of the level of students' training is carried out by: interviewing students, solving and analyzing situational tasks and test tasks, interpreting the results of clinical- instrumental and clinical-laboratory research, monitoring the acquisition of practical skills. Current control is carried out at each practical lesson in accordance with the specific objectives of each topic.

**Intermediate control.** Checking the possibility of using students for clinical and diagnostic analysis of theoretical knowledge and practical skills on all topics studied, as well as the results of independent work of students. Carried out in the last lesson on the topic by passing practical skills, solving situational problems and testing.

**The final control work (FCW)** is carried out upon completion of the study of all topics of each block in the last, control, lesson. To the FCW allowed students who visited all prescribed curriculum lectures, classroom training sessions, completed fully independent work and during training gained score not less than the minimum - **in the first block of 70 points in the second - 40** (see. lower)

In order to assess the results of training in pediatrics, the **final control** is conducted **in the form of an exam, which is recommended for academic disciplines, which is part of the integrated test exams EDKI and "KROK-2"**. Students who passed both FCW are admitted to the exam.

## Evaluation of educational activities

When evaluating educational activities of students given preference standardized methods of control: testing, structured written work, solving situational tasks structured by the procedure control of practical skills in conditions that are close to reality.

At the time of evaluation mastering each topic on the current activities of the student exhibited estimates for multimark (200-point) scale university, which corresponds to the scale of ECTS with regard approved criteria for assessment for the relevant discipline. When this takes into account all kinds of work, provided the training program. The student has the right to receive a grade on each topic. Forms of assessment of educational activities include control of theoretical and practical training.

## Distribution points are getting students

**In the first block, the** maximum number of points for the current educational activities of the student - **120**. Accordingly, in the first block, the maximum score for each topic is: 120 points: 15 topics = **8 points**. The minimum score for the first block is: 70 points: 15 topics = **6.7 points**. A score below 6.7 points means "unsatisfactory", the topic is not credited and must be worked out in the prescribed manner.

For FCW № 1 a student can get a maximum of **80 points**. FCW is considered to be passed if the student has received no less than **50 points**.

**In the second block,** the maximum number of points for the current educational activities of the student is **80**. The history of the disease, as a mandatory individual work, is considered and evaluated as an independent topic of the lesson. Accordingly, in the second block, the maximum score for each topic is: 80 points: 10 topics = **8 points**. The minimum score for each topic is 40 points : 10 topics = **4 points**.

For FCW № 2 a student can get a maximum of **40 points**. FCW is considered to be passed if the student has received no less than **30 points**.

At the exam, a student can get a maximum of **80 points**. The exam is considered passed if the student has scored at least **50 points**. Distribution of points on the exam - see above in the example of the exam ticket.

### Assessment of student performance

№	Topics	Maximum number of points
<b>BLOCK 1. Neonatology, diseases of the blood system and endocrine system in children</b>		
1.	Organization of neonatal care in Ukraine. Medical care for a healthy newborn baby.	8
2.	Preterm children. Children with intrauterine delay development.	8
3.	Asphyxia of newborns. Childbirth trauma newborns.	8
4.	Respiratory distress syndrome of newborns. Neonatal pneumonia .	8
5.	Hemolytic disease of newborns. Hemorrhagic disease newborns.	8
6.	Intrauterine infections of the newborn (TORCH - infections).	8
7.	Bacterial infections of newborns.	8
8.	Anemia in children (deficient, posthemorrhagic, hemolytic, due to a violation of hematopoiesis).	8
9.	Leukemias and lymphomas in children.	8
10.	Hemorrhagic diseases in children.	8
11.	Diabetes mellitus in children.	8
12.	Diseases of the thyroid gland in children.	8
13.	Diseases of the hypothalamic-pituitary system and genital glands in children.	8
14.	Obesity in children.	8
15.	Individual work ( medical history ).	8
<b>Together</b>		<b>120</b>
<b>Final control work № 1</b>		<b>80</b>
<b>Total for block № 1</b>		<b>200</b>
<b>BLOCK 2. Children's infectious diseases</b>		
1.	Measles, rubella, chicken pox, herpes zoster	8
2.	Scarlet fever, pseudotuberculosis	8
3.	Diphtheria, infectious mononucleosis	8
4.	Pertussis, mumps infection	8
5.	Meningococcal infection	8
6.	Polio, enterovirus infection	8
7.	ARVI	8
8.	Acute intestinal infections	8
9.	Viral hepatitis	8
10.	Individual work ( medical history )	8
<b>Together</b>		<b>80</b>

	<b>Final control work № 2</b>	<b>40</b>
	<b>Total for block № 2</b>	<b>120</b>
	<b>Exam</b>	<b>80</b>
	<b>Total for block 2 and exam</b>	<b>200</b>

### Evaluation criteria

Students' knowledge is assessed from both theoretical and practical training according to the following criteria:

**8 points for the topic in the first and second blocks, 71-80 points for FCW № 1, 38-40 points for FCW № 2 and 71-80 points for the exam ("excellent" on the national scale, A on the ECTS scale)** - the student correctly answered 90-100% of KROK-2 format tests. Right, logically and clearly meets all the standardized question current topics, including on the issues of the lecture course and individual work, or test ticket. Closely connects theory with practice and correctly performs practical work with writing a conclusion on the results. Freely reads the results of laboratory tests, solves situational problems of increased complexity, is able to summarize the material, has the methods of laboratory tests to the required extent.

**6-7 points per topic in the first and second blocks, 61-70 points on the FCW № 1, 35-37 points on the FCW № 2 and 61-70 points on the exam ("good" on the national scale, B and C on the ECTS scale)** - the student correctly answered 70-89% of the KROK-2 tests. Correctly and essentially answers the standardized questions of the current topic, lecture course and independent work or exam ticket. Demonstrates performance (knowledge) of practical skills. Correctly uses theoretical knowledge in solving practical problems. Is able to solve easy and medium situational problems. Has the necessary practical skills and techniques to perform them in excess of the required minimum.

**4.7-5 points per topic in the first block, 4-5 points per topic in the second block, 50-60 points on the FCW № 1, 30-34 points on the FCW № 2 and 50-60 points on the exam ("satisfactory" on the national scale, D and E on the ECTS scale)** - the student correctly answered 50-69% of the tests of the KROK-2 format. Incomplete, with the help of additional questions, answers standardized questions of current activity, lecture course and independent work or exam ticket. Cannot build a clear, logical answer on their own. During the answer and demonstration of practical skills, the student makes mistakes. The student solves only the easiest problems, has only a mandatory minimum of research methods.

**Less than 4.7 points per topic in the first block, 4 points per topic in the second block, 50 points on the FCW № 1, 30 points on the FCW № 2 and 50 points on the exam ("unsatisfactory" on the national scale, Fx and F on the scale ECTS)** - the student correctly answered less than 50% of the tests of the KROK-2 format. Does not know the material of the current topic or questions of the exam ticket, can not build a logical answer, does not answer additional questions, does not understand the content of the material. Makes significant, gross mistakes when answering and demonstrating practical skills.

### Criteria for assessing of Case history

**Assessment of medical history as a mandatory individual work of the student, occurs during its defense in the process of individual work of the teacher with the student.**

**Score of 8 points ("excellent" on a national scale, and on the ECTS scale)** is given if the student conducted a complete clinical examination of a sick child, described its results, correctly assessed the patient's clinical condition, clinical changes in organs and systems, laboratory and instrumental results. methods of examination, correctly determined the clinical diagnosis according to the classification of diseases and substantiated it, made a full differential diagnosis, prescribed complete and correct treatment, correctly determined the prognosis of the disease and means of its prevention.

**Score 6-7 points ( "good" on a national scale, B and C on a scale ECTS)** is given if the student has conducted a complete clinical examination of a sick child, but made inaccuracies in assessing the clinical condition, laboratory and instrumental methods of examination, correctly determined the clinical diagnosis and justified his, did not make a full differential diagnosis, prescribed the right treatment, but not in full or with minor errors.

**A score of 4.7-5 points in the first block and 4-5 points in the second block ("satisfactory" on the national scale, D and E on the ECTS scale)** is given if the student made some mistakes in assessing the clinical condition of the patient, the results of clinical, laboratory and instrumental examination, diagnosis and justification, treatment or prognosis.

**A score of less than 4.7 points in the first block and less than 4 of the second block ("unsatisfactory" on the national scale, Fx and F on a scale ECTS)** is given if the student has made significant errors in the analysis of clinical condition, results of clinical, laboratory and instrumental examination of a sick child, failed diagnosis, treatment .

The work is considered completed if the student receives a positive assessment in writing and defending a medical history.

## **7. Recommended literature**

### **Basic**

1. Neonatology: a national textbook: in 2 volumes / Ed. prof. Ye. Shunko. -K., 2014.- Vol.1.960p.
2. Maidannik VG Pediatrics. Textbook (2nd edition, corrected and supplemented). - Харьков: Фолио, 2002. - 1125 с.
3. Infectious diseases in children: a textbook / S.O. Крамарьов, О.Б. Nadraga, L.V. Pipa and others. ; for order. S.O. Крамарьова, О.Б. Dear. - 2nd ed., Edited. - К .: VSV "Medicine". - 2016. - 392 p. + 14 s. color. incl
4. Pediatrics: a national textbook: in 2 volumes / Ed. prof. Berezhnogo VV - Kyiv, 2013. - 1040 p.
5. Nelson Textbook of Pediatrics by Robert M. Kliegman, Bonita Stanton, Joseph St. Geme Nin a Schor, Richard E . Behrman / Edition 19. Publisher : Elsevier Health Sciences . 2680 p.

### **Additional**

1. Aryaev ML Neonatology. - Kyiv: "ADEF - Ukraine", 2006. - 754 p.
2. Atlas of children's infectious diseases. Red Book Atlas of Pediatric Infectious Diseases: trans. from the 3rd English. edition / ed. K.D. Baker; Science. ed. Iane. C. Крамарьов. - Kyiv: Medicine, 2019. - 744p.
3. Atlas of infectious diseases / МА Андрейчин, В.С. Корча, S.O. Kramarev and others]; for order. МА Andreychina. - Ternopil: TSMU, 2010. - 248 p
4. Volosovets AP, Nagornaya NV, Krivopustov SP, Ostroplets SS, Bordyugova OV Diagnosis, therapy and prevention of deficient anemias in children - Donetsk: SPD Dmitrenko LR, 2007. - 38 p.
5. Pediatrics / Under Ed. prof. VV Berezhny. -Kyiv, 2013.- 1037 p.
6. Volosovets OP, Abaturov OE, Krivopustov SP, Bolbot YK, Krivoruk IM Differential diagnosis of syndromes of physical and sexual development disorders in children. Monograph. - Ternopil: TSMU, 2006. - 354 p.
7. Volosovets OP, Snisar VI Recommendations for cardiopulmonary resuscitation in children. Methodical manual. - Dnepropetrovsk, ART-PRESS. - 2015. - 48 p.
8. Gaiducova C.M. and others / Hemolytic disease of newborns: Textbook. for students. and teachers of medical universities and doctors. - К .: NMAPE. P.L. Shupika, 2007.-168 p.
9. Dedov II, Peterkova VA Pediatric endocrinology. - М .: Универсум Паблишинг, 2006. -600 с.

10. Dedov II, Peterkova VA Handbook of pediatric endocrinologist. - М.: Литтера, 2011. - 528 с.
11. Neonatology; training manual / Under Ed. TK Znamenskaya.-Kyiv, 2012.-980 p.
12. Krivopustov SP Problem- oriented pediatrics: selected questions (clinical guide for physicians). Kharkiv: Novoe slovo, 2012. - 288 p.
13. Laboratory tests (clinical use) // Handbook of the doctor.-К.: Ltd. "Doctor-Media", 2008.-288 p.
14. A practical guide to neonatology / Ed. S. Ezutachan, D. Dobriansky: Per. from English - Lviv-Detroit, 2002. 344 p.
15. Rational diagnosis and treatment of endocrine diseases in children and adolescents / By Ed. MD Tronko and OV Bolshova. - К.: Доктор-Медіа, 2008. - 380 с.
16. Situational tasks in pediatrics / Ed. Corresponding Member Academy of Medical Sciences of Ukraine, prof. V.G. Maidannika.- К., 2006.- 204 p.
17. Slabky GO, Znamenskaya TK, Poor VG, Zhilka N.Ya., Kovaleva OM, Pokhilko VI Neonatology from the standpoint of a family doctor. - Kyiv, 2009.- 435 p.
18. Test the task of Pediatrics / Under Ed. Corresponding Member Academy of Medical Sciences of Ukraine, prof. V.G. Maidannika.- К., 2007.-429 p.
19. Pediatrics / Under Ed. prof. O.B. Heavy.- Vinnytsia, 2009.-1132 p.
20. Infectious diseases: encyclopedic reference book / edited by Kramareva SO, Golubovskaya OA - К.: LLC "RA-HARMONY", 2019. - 712 p.
21. Infectious diseases: a textbook (University IV part a) / ОА Голубовська, М.А. Андрейчин, А.В. Shkurba, etc.; for order. О.А. Golubovska. - К.: VSV "Medicine", 2019. - 2nd edition. - 688 p. + 12 s. color. incl.
22. Cherry J., Demmler-Harrison GJ, Kaplan SL, Steinbach WJ, Hotez P. Feigin and Cherry's Textbook of Pediatric Infectious Diseases, 7th Edition.- Philadelphia: Elsevier Saunders, 2015
23. Nelson Textbook of Pediatrics, 20th Edition (R. Kliegman et al.) Philadelphia: Elsevier, 2015
24. Infectious diseases in children in the outpatient practice of a doctor (Doctor's Handbook) .- К: LLC " Harmony " .- 2017.- 209 p.
25. Infectious diseases in children (ed. D. Murray) .- М: Practice.- 2006, 872 p.
26. Order of the Ministry of Health of Ukraine № 198 of 05.08.1999 "On improving the prevention, diagnosis and treatment of tetanus"
27. Response to vaccine-related polioviruses type 2 in the pre-cessation phase of OPV use globally. Interim Guide, 2015 // (<http://www.polioeradication.org/ResourceLibrary/Resourcesforpolioeradicators.aspx>).
28. Guide to the investigation vspryshek bark and rubella and Implementation ответных Mer Evropeyskom region WHO, 2013
29. Budka SH, Chaudhuri A., Koskiniemi KS, Salonen SO Viral meningoencephalitis of diagnostic methods and guidelines for management // Europen J. Neurol.- 2010.- V.17.- P. 999- 1009
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31. Cameron DJ, Johnson LB, EL Maloney (2014) Evidence assessments and guideline recommendations in Lyme disease: the clinical management of known tick bites, erythema migrans rashes and persistent disease. Expert Review of Anti-infective Therapy, 5, 12: 9, 1103- 1135, DOI: 10.1586 / 14787210.2014.940900.
28. To link to this article: <http://dx.doi.org/10.1586/14787210.2014.940900>
29. Carson R. A., Mudd S. S., M. P. Jamil Clinical Practice Guideline for the Treatment of Pediatric Acute Gastroenteritis in the Outpatient Setting //
30. J Ped. Health Care.- 2016.- V.30 (6) .- P.610-616.

31. Clinical Guidelines. For curative and treatment in hospitals and dispensaries, guidance for prescribing, 2016 // [www.refbooks.msf.org](http://www.refbooks.msf.org)
32. Feizizadeh S., Salehi-Abargouei A., Akbari V. Efficacy and Safety of *Saccharomyces boulardii* for Acute Diarrhea. *Pediatrics*.2014; 134 (1): e176-91.
33. Guarino A., Ashkenazi Sh., Gendrel D., Vecchio AL, Shamir R., Szajewska H. European Society for Pediatric Gastroenterology, Hepatology, and Nutrition / European Society for Pediatric Infectious Diseases Evidence-based Guidelines for the Management of Acute Gastroenteritis in Children in Europe: update 2014 // *J. Ped. Gastroenterol. Nut ..- 2014. Vol. 59.- N1.- R. 132–152.*
34. Huiming Y, Chaomin W, Meng M. Vitamin A for treating measles in children. *Cochrane Database of Systematic Reviews*, 2005, (4): CD001479.
35. Influenza Antiviral Medications: Summary for Clinicians, 2016
36. <https://www.cdc.gov/flu/professionals/antivirals/summary-clinicians.htm>
37. McFarland L.V. Systematic review and meta-analysis of *Saccharomyces boulardii* in adult patients. *World J Gastroenterol*. 2010; 16 (18): 2202-22.
38. Manual of Childhood Infections. The blue Book (Chief Editor M. Sharland) .- Oxford University Press.- 2016, € 966 P.
39. Measles (Rubella) // [mmwrq@cdc.gov](mailto:mmwrq@cdc.gov) .
40. Measles (Rubeola) Reporting and Case Investigation, 2015 // [ww.manitoba.ca](http://ww.manitoba.ca)
41. Meningitis (bacterial) and meningococcal septicemia in under 16s: recognition, diagnosis and management // [nice.org.uk/guidelines/cd102](http://nice.org.uk/guidelines/cd102)
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### Information resources

1. Orders MZ of Ukraine "On the improvement of outpatient care to children in Ukraine", "On the improvement of health care for children of adolescent age" and in the minutes for the field: "Pediatric Nephrology", "Children's infectious diseases", "Children's immunology" "Pediatrics", "Pediatric Pulmonology". K.-2005.- 414 p.

[http://lviv.medprof.org.ua/uploads/media/Про\\_удоконалення\\_амбулаторно-поликлінічної\\_допомоги\\_дітям\\_в\\_Україні.pdf](http://lviv.medprof.org.ua/uploads/media/Про_удоконалення_амбулаторно-поликлінічної_допомоги_дітям_в_Україні.pdf)

<http://mozdocs.kiev.ua/view.php?id=2111>

2. State form of medicines . State Enterprise "State Expert Center of the Ministry of Health of Ukraine". - Issue seven. - K. 2015 <http://www.apteka.ua/article/322672>

3. International Classification of Diseases and Causes of Death, 10th revision (ICD-10) <http://mkb-10.com>

4. About the statement of protocols of rendering of medical aid to children on a specialty "Children's hematology". - the Order of the Ministry of Health of Ukraine of 20.07.2005 No. 364 - 10 p. [http://www.gov.lica.com.ua/b\\_text.php?base=1&id=564544&type=3](http://www.gov.lica.com.ua/b_text.php?base=1&id=564544&type=3)

5. Protocols for providing medical care to children in the specialty "Pediatric Endocrinology". - Order of the Ministry of Health of Ukraine of 27.04.2006 No. 254 120 p. in the wording of the order of the Ministry of Health of Ukraine dated 03.02.2009 № 55

[http://search.ligazakon.ua/l\\_doc2.nsf/link1/MOZ6018.html](http://search.ligazakon.ua/l_doc2.nsf/link1/MOZ6018.html)

6. Order of the MOH Ukraine №152 from 04.04.2005 g. "On approval of the Protocol of medical care for healthy newborn baby." - Kyiv, 2005. - 29 p. [http://ukraine.uapravo.net/data/bas\\_e21/ukr21220.htm](http://ukraine.uapravo.net/data/bas_e21/ukr21220.htm)

7. Order of the Ministry of Health of Ukraine of 29.03.2006 No. 179 "Procedure for registration of live births and stillbirths" <http://zakon4.rada.gov.ua/laws/show/z0427-06>

8. Order of the Ministry of Health of Ukraine 27.04.2006 N255 "On approval of the clinical protocol for neonatological care for children " Jaundice of newborns ". - 34 p. <http://ukraine.uapravo.net/data/base09/ukr09578.htm>

9. Order №584 of 29.08.2006 "Protocol of medical care for a newborn child with low birth weight". <http://ukraine.uapravo.net/data/base05/ukr05859.htm>

10. Order of the Ministry of Health of Ukraine №234 from 10.05.2007 g. "On the organization of prevention of nosocomial infections in obstetric hospitals." - Kyiv, 2007. - 77 p. <http://zakon4.rada.gov.ua/laws/show/z0694-07>

11. Order of the Ministry of Health №149 of 20.03.2008 "Clinical protocol of medical care for a healthy child under 3 years of age" <http://ukraine.uapravo.net/data2008/base09/ukr09572/index.htm>

12. Order of the Ministry of Health of Ukraine № 484 of 21.08.2008 "On approval of the Clinical Protocol for the care of a newborn child with respiratory disorders" - 58p.

<http://www.uapravo.net/akty/postanowa-resolution/akt3dndi3a/index.htm>

13. Order of the Ministry of Health №225 of March 28, 2014 "Primary, resuscitation and post- resuscitation care for newborns in Ukraine"

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14. Minutes of diagnosis and treatment of infectious diseases in ditye.- approved by order of Ministry of Health of Ukraine of 09.07.2004 p., №354 [www.nmu.edu.ua / kaf 34.php](http://www.nmu.edu.ua/kaf34.php); <https://www.moz.gov.ua/ua>.

15. Calendar of preventive vaccinations in Ukrayini.- MOH Ukraine №595 of 16 September 2011 (as revised under the Ministry of Health of Ukraine of 11 August 2014 roku №551) [www.nmu.edu.ua / kaf 34.php](http://www.nmu.edu.ua/kaf34.php); <https://www.moz.gov.ua/ua>.

16. Protocol of treatment of meningococemia in children Order of the Ministry of Health of Ukraine dated 12.10.2009 № 737 [www.nmu.edu.ua / kaf 34.php](http://www.nmu.edu.ua/kaf34.php); <https://www.moz.gov.ua/ua>.

17. Protocol of treatment of acute intestinal infections in children Order of the Ministry of Health of Ukraine N 803 of 10.12.2007 On amendments to the order of the Ministry of Health of 09.07.04 N 354; On approval of Protocols for diagnosis and treatment of infectious diseases in children [www.nmu.edu.ua / kaf 34.php](http://www.nmu.edu.ua/kaf34.php); <https://www.moz.gov.ua/ua>.

18. Adapted clinical guidelines based on evidence of influenza and acute respiratory infections [www.nmu.edu.ua / kaf 34.php](http://www.nmu.edu.ua/kaf34.php); <https://www.moz.gov.ua/ua>.

19. Uniform clinical protocol of primary medical care for adults and children with acute respiratory infection - approved by the Ministry of Health of Ukraine 16 July 2014 r. Number 499 [www.nmu.edu.ua/](http://www.nmu.edu.ua/) kaf 34.php; <https://www.moz.gov.ua/ua>.

20. unified clinical protocols of primary care for adults and children flu - Approved by Decree of the Ministry of Health Care Ukraine 16 July 2014 r. № 499. [www.nmu.edu.ua/](http://www.nmu.edu.ua/) kaf 34.php; <https://www.moz.gov.ua/ua>; <https://www.moz.gov.ua/ua>.

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25. Industry standard of higher education Educational and qualification characteristics of a specialist in the specialty 7.110104 pediatrics.- Kyiv, 2003.-Publishing house "Book-plus" .- 23 p. [www.moz.gov.ua/ua](http://www.moz.gov.ua/ua).