

DANYLO HALYTSKYI LVIV NATIONAL MEDICAL UNIVERSITY

Department of Pediatrics No 1, Pediatrics No 2

“APPROVED”

First Vice-Rector on Scientific and Pedagogical work

Danylo Halytsky Lviv National Medical University

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2023

PROGRAM OF THE ELECTIVE DISCIPLINE

EB 2.10

MEDICAL PRACTICAL TRAINING IN PEDIATRIC INPATIENT DEPARTMENT

of the second (master's) level of higher education
field of knowledge 22 "Health"
specialty 222 "MEDICINE"

Discussed and approved
at the methodological meeting of the
Department of Pediatrics No 1
Protocol No 16
of "20" April 2023
Head of Department
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Approved by the profile Methodical Commission
of Pediatric disciplines
Protocol No 2
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Discussed and approved
at the methodological meeting of the
Department of Pediatrics No 1
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**The discipline program EB 2.10 MEDICAL PRACTICAL TRAINING IN PEDIATRIC
INPATIENT DEPARTMENT**
was developed and imported at the Department of Pediatrics No2 of Danylo Halytsky Lviv
National Medical University for the 4th year students of Faculty Foreign Students by the
Specialty 222 "Medicine"

**Changes and additions to the study program of the discipline during 2023-2024 academic
year.**

No	Content of changes (additions)	Minutes of the meeting of the Department, date	Notes
1	No changes or additions have been made	Discussed and approved at the methodological meeting of the Department of Pediatrics No 2 Protocol No <u>12</u> of " <u>21</u> " <u>April 2023</u> Discussed and approved at the methodological meeting of the Department of Pediatrics No 1 Protocol No <u>16</u> of " <u>20</u> " <u>April 2023</u>	

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Introduction

The program of the discipline **Medical practical training in pediatric inpatient department** has been developed according to the *Educational and professional program "Medicine"* of the second (master's) level of higher education

The standard of higher education of the second (master's) level

fields of knowledge 22 "Health care"

specialty 222 "Medicine"

Description of academic discipline (abstract)

Practical training of students at general medicine departments is an important aspect in the training of physicians and an indispensable component of the educational process. It is held at appropriately equipped bases of the university, as well as in modern medical and preventive health care institutions.

Students master skills of anamnesis compilation, systematization of symptoms to syndromes, planning of an ill child's examination, interpretation of data of laboratory and instrumental investigations, conduction of differential diagnosis of the most common childhood diseases with their typical course, establishment of initial clinical diagnosis, choice of therapeutic tactic, administration of treatment with drug dosages, giving emergency medical aid, solution of situational tasks, working through practical skills at child's bedside, and compilation of medical documents.

According to curriculum, medical practice is conducted during the fourth year of study in VIII semester, when students have acquired appropriate knowledge in basic clinical disciplines. The practical training is conducted with students acting as doctor's assistants in pediatric unit and lasts 4 weeks.

All period of practical training is individual work of students, which is controlled by a teacher from the department and a supervisor of practical training from the base.

Structure of educational discipline	Number of credits / hours		Academic year/ semester	Types of control
	Total	Weeks		
Practical medical training in pediatric inpatient department	6 credits/180 hours	4	IV year/ VIII semester	Differentiated credit

The subject of mastering educational discipline is:

health care of children aged from 0 to 18 years, prophylaxis, diagnosis and treatment of diseases, considering age psychophysiological peculiarities of children.

Interdisciplinary integration: In accordance with the academic curriculum of the discipline Medical practical training in pediatric inpatient department is provided after the 4th year (VIII semester), when the student has acquired knowledge of the main basic disciplines:

- Medical Biology
- Biological physics
- The normal anatomy and human physiology
- Pathologic Anatomy and physiology
- Pharmacology
- Histology, cytology and embryology
- Microbiology, virology and immunology
- Radiology
- Propaedeutic of Pediatrics
- Pediatrics (for 4th year students)

With these disciplines the curriculum of discipline "Medical practical training in pediatric inpatient department" is integrated. As the continuation of the Propaedeutic of Pediatrics, the discipline in parallel with other clinical disciplines provides integration of teaching with these disciplines and forming skills of future physicians to use the acquired knowledge in their professional activity.

1. Purpose and tasks of academic discipline

1.1. The purpose of teaching the educational discipline "Medical practical training in pediatric inpatient department" is as follows: formation of the ability to use knowledge, skills to solve typical problems of the doctor in the children's health field, the use of which is foreseen by defined list of syndromes and symptoms of diseases, emergency conditions, physiological conditions, and diseases requiring special tactics of patient management; laboratory and instrumental examinations, medical manipulations.

1.2. The main **task** of discipline "Medical practical training in pediatric inpatient department" is reinforcement of knowledge and skills, obtained in the study of basic clinical and theoretical disciplines (examination of a patient, establishment of clinical diagnosis, administration of treatment) and further improvement of practical skills, acquaintance with organization of therapeutic work.

As a result of studying the discipline " Medical practical training in pediatric inpatient department" student **should know:**

- Etiologic factors of the most common childhood diseases;
- Pathogenesis of the most common somatic diseases of childhood;
- Classification of the most common somatic diseases of childhood;
- The main clinical symptoms of the most common somatic diseases of childhood;
- Principles of treatment of the most common childhood diseases.

As a result of studying the discipline of "pediatrics" the **student must be able to:**

- Take medical history;
- Examine a sick child and analyze the obtained results
- Point out basic symptoms and group them into syndromes in the most common diseases of childhood;
- Make a preliminary clinical diagnosis and conduct differential diagnosis
- Analyze typical and non-typical course of the most common diseases in children
- Compile an examination plan of a sick child;
- Analyze data of obtained laboratory and instrumental tests
- Determine tactics of treatment, rehabilitation and prophylaxis of the most common childhood diseases;
- Provide emergency aid in urgent conditions in a pediatric clinic;
- Acquire skills of performing medical manipulations in pediatrics;
- Acquire skills of compiling medical documentation in pediatric inpatient unit;
- Master moral and deontological principles in pediatrics.

1.3. Competence and learning outcomes, the formation of which is facilitated by the discipline in accordance with the requirements of the Standard of Higher Education.

The discipline provides students with the acquisition of the following **competences**:

Integral competence:

The ability to solve complex problems, including those of a research and innovation nature in the field of medicine Ability to continue learning with a high degree of autonomy.

General competences:

GC1	The ability to abstract thinking, analysis, and synthesis
GC2	Ability to learn and master modern knowledge
GC3	Ability to apply knowledge in practical situations
GC4	Knowledge and understanding of subject area and understanding of professional activity
GC5	The ability to adapt and act in a new situation
GC6	Ability to make a justified decision
GC7	Ability to work in a team
GC8	Interpersonal skills interaction
GC9	Ability to communicate in foreign language
GC10	Skills in using information and communication technologies
GC11	Ability to search, process and analyze information from various sources

GC12	Awareness and perseverance concerning taken tasks and duties
GC14	The ability to exercise their rights and responsibilities as a member of society, to realize the values of civil (free democratic) society and the need for its sustainable development, the rule of law, human and civil rights

Professional (Special, Subject) competences:

PC1	Ability to collect medical information about the patient and analyze clinical data
PC2	Ability to determine the required list of laboratory and instrumental studies and assess their results
PC3	The ability to establish preliminary and clinical diagnoses
PC4	Ability to determine the necessary regime, training, work and recreation for healthy children and for those who are being treated for illnesses
PC5	Ability to prescribe an appropriate diet in treatment and prevention of diseases
PC6	Ability to determine the principles and type of treatment and prevention of diseases
PC7	Ability to diagnose emergency conditions
PC8	Ability to determine the tactics of emergency medical care
PC10	The skills of performing medical manipulations
PC11	Ability to solve medical problems in new or unfamiliar environments in the presence of incomplete or limited information taking into account aspects of social and ethical responsibility
PC16	Ability to keep medical records, including electronic forms
PC21	Clearly and unambiguously communicate one's own knowledge, conclusions, and arguments about health problems and related issues to professionals and non-specialists, particularly to trainees.
PC24	Adherence to ethical principles when working with patients
PC25	Adherence to professional and academic integrity, to be responsible for the reliability of the obtained scientific results

Detailed competences are present in accordance with the descriptors of the NRK in the form of "Competences Matrix".

Competences Matrix

	Competence	Knowledge	Skills	Communication	Autonomy and responsibility
Integral competence					
The ability to solve complex problems, including those of a research and innovation nature in the field of medicine Ability to continue learning with a high degree of autonomy.					
General competence					
1.	Abstract-thinking, analysis and synthesis capability (GC1)	Know the ways of analyzing, synthesis and further modern learning	Be able to analyze information, make informed decisions, be able to master modern knowledge	Establish the appropriate links for achieving the goals.	To be responsible for the timely acquiring of modern knowledge.
2.	Ability to learn and master modern knowledge (GC2)	To know the current trends of medicine development and analyze them	Be able to analyze professional information, make informed	Establish the appropriate links for achieving the goals.	To be responsible for the timely acquisition of

			decisions, acquire modern knowledge		modern knowledge.
3.	Ability to apply the knowledge in practical situations (GC3)	Have specialized conceptual knowledge, acquired in the process of studying.	To be able to solve difficult tasks and problems that arise in professional activity.	Understandable and unequivocal explanation of own conclusions and knowledge to specialists and non-specialists.	To be responsible for decisions, made in difficult conditions
4.	Knowledge and understanding of subject area and professional activity (GC4)	Have profound knowledge in the structure of professional activity.	Be able to carry out professional activities that need updating and integrating knowledge.	Ability to effectively form communications strategy in professional activities	To be responsible for professional development, the ability to further professional training with a high level of autonomy
5.	The ability to adapt and act in a new situation (GC5)	To know types and ways of adaptation, principles of action in a new situation	To be able to use means of self-regulation, to be able to adapt to new situations (circumstances) of life and activity.	Establish appropriate links to achieve the result.	To be responsible for, timely use of methods of self-regulation.
6.	The ability to make a justified decision (GC6)	To know the tactics and strategies of communication, laws and methods of communicative behavior	To be able to make justified decisions, choose the ways and strategies of communication to ensure effective teamwork	Use strategies to communicate and interact with interpersonal skills	To be responsible for choice and tactics of communication method
7.	Ability to work in a team (GC7)	To know the tactics and strategies of communication, laws and methods of communicative behavior.	To choose the ways and strategies of communication to ensure effective teamwork	Use communication strategies	To be responsible for choice and tactics of communication method
8.	Skills of Interpersonal interaction (GC8)	Know the laws and ways of interpersonal interaction	To choose the ways and strategies of communication for interpersonal interaction	Use the skills of interpersonal interaction	To be responsible for choice and tactics of communication method

9.	Ability to communicate in foreign language (GC9)	Have basic knowledge of a foreign language	Able to communicate a foreign language.	Use a foreign language in professional activities	To be responsible for the development of professional knowledge with the use of foreign language.
10.	Skills of using of informative and communicative technologies (GC10)	To possess profound knowledge in the field of informative and communicative technologies applied in professional activities	To be able to use informative and communicative technologies in the professional field, that need updating and integrating the knowledge.	Using of informative and inter-communicative technology in professional activities	To be responsible for the development of professional knowledge and skills.
11.	Ability to search, process and analyze information from various sources (GC11)	Have knowledge about searching and analysis of information from various sources	Be able to search, process and analyze information	Obtain information from a particular source and draw conclusions from its analysis	Be responsible for the completeness and quality of information analysis and conclusions
12.	Awareness and perseverance concerning taken tasks and duties (GC12)	Know the responsibilities and ways of fulfilling the tasks	To be able to identify goals and objectives to be persistent and conscientious in the performance of responsibilities	To establish interpersonal-net connections for effective execution of tasks and responsibilities	To be responsible for the quality of fulfillment of the tasks
13.	The ability to exercise their rights and responsibilities as a member of society, to realize the values of civil (free democratic) society and the need for its sustainable development, the rule of law, human and	Know your social and civil rights and responsibilities	To form your civil consciousness, to be able to act in accordance with it	Ability to convey own public and social position	To be responsible for the own citizenship position and activity

	civil rights (GC14)				
Special (Professional, subject) competence					
1.	Ability to collect medical information about the patient and analyze clinical data (PC1)	To have specialized knowledge about the child, her organs and systems, the anatomical and physiological peculiarities of the children of different age, to know the standard methods of inquiry, taking genealogical information, preparation of pedigree, physical examination of patient of different ages. To know the methodology for assessment of prenatal development of the fetus. Know the stages and methods of examination of psychomotor and physical development of the child.	To be able to talk to a child-and/or her parents (guardians), on the basis of algorithms and standards. Use the principles of communication with the parents of children with incurable diseases. Using standard techniques To carry out examination of the patient. Be able to examine psychomotor and physical development of the child. Able to assess the quality of care, infant feeding and nutrition of children. Be able to conduct a comprehensive assessment of child health.	To effectively form a communication strategy when communicating with the patient and/or his parents (guardians). Transfer information about the health of the child or intrauterine development of the fetus to the relevant medical documentation.	Be responsible for qualitative gathering of information received on the basis of interviews, surveys, review, and palpation, percussion of organs and systems and for timely assessment of the condition: child's health, psychomotor and physical development of the child and Intrauterine development of fetus and for taking appropriate measures.
2.	Ability to determine the required list of laboratory and instrumental studies and assess their results (P2)	To have specialized knowledge about the child, her organs and systems, standard methods of laboratory and instrumental examinations	To be able to analyze the results of laboratory and instrumental examinations and to make preliminary diagnosis	To form and convey to the patient and/or his/her parents (guardians), experts conclusions on the necessary List of laboratory and instrumental studies	Be responsible for deciding on the results evaluation of laboratory and instrumental examinations
3.	Ability to establish preliminary and clinical	To have specialized knowledge about the child, its organs and systems;	Be able to conduct physical examination of the patient; Be	On the basis of normative documents fill in medical	On the basis of ethical and legal norms, be responsible for

	diagnosis (PC3)	Standard methods of examination; algorithms for diagnosing diseases; Algorithms for selection of leading symptoms or syndromes; preliminary and final clinical diagnoses; methods of laboratory and instrumental examination; Assessment of the child's condition.	able to make informed decisions about allocation of leading clinical symptom or syndrome; Be able to make the preliminary and final clinical diagnosis; to recommend laboratory and instrumental examination of the patient by applying standard methods	documents- (ambulatory and hospital cards, etc.).	making reasonable decisions and actions on the correct preliminary and final clinical diagnosis
4.	Ability to determine the necessary regime, training, work and recreation for healthy children and for those who are being treated for illnesses (PC4)	To have specialized knowledge about the child, her organs and systems, the anatomical physiological and age peculiarities; ethical and legal norms; Algorithms and standard schemes for determining the regime of training, work and rest of healthy children and at treatment of the disease, on the basis of preliminary and clinical diagnosis	To be able to determine the necessary regime of training, work and rest of healthy children and in the treatment of the disease	To form and convey to the patient and/or his parents (guardians) and experts conclusions on the necessary regime, mode of study, work and rest of healthy children and in the treatment of the disease	Be responsible for the validity of the recommended regime of study, work and rest of healthy children and in the treatment of the disease
5.	Ability to prescribe an appropriate diet in treatment and prevention of diseases (PC5)	Have specialized knowledge about algorithms and standard schemes of nutrition for healthy children and during the treatment of	Be able to determine the type of nutrition of healthy children and on the basis of preliminary and final diagnoses, the type of nutrition in the treatment of diseases	Formulate and communicate to the patient and/or their parents (guardians), specialists conclusions on the nutrition of healthy children and in the treatment of diseases	Be responsible for the reasonableness of nutritional determinations for healthy children and in the treatment of illness

		diseases			
6.	Ability to determine the principles and type of treatment and prevention of diseases (PC6)	Have specialized knowledge of algorithms and standard methods for disease treatment	Able to determine the principles and methods of treatment of disease	To form and convey to the patient and/or his/her parents (guardians), experts own conclusions about the principles and methods of the treatment	Be responsible for deciding on the principles and methods of treatment of disease
7.	Ability to diagnose emergency conditions (PC7)	To have specialized knowledge about the person, its organs and systems, standard methods of human examination (at home, on the street, in the health care institution) in terms of lack of information.	To be able, in terms of lack of information, using standard methods, to make a reasonable decision, to assess the condition of the person and determine the main clinical syndrome (or what is due to the severity of the victim/injured)	Under any circumstances, on the basis of appropriate ethical and legal norms, make a reasonable decision concerning assessment of the severity of the human condition, diagnosis and organization of necessary medical measures, depending on the human condition; fill in relevant medical documents.	Be responsible for the timely and effective medical measures for the diagnosis of emergency conditions.
8.	Ability to determine the tactics of emergency medical care (PC8)	Know legislative base for emergency medical care, including the law of Ukraine "on emergency medical care". To have specialized knowledge about human emergency conditions; principles of emergency medical care, algorithms for providing emergency medical care for emergency states.	To be able to determine emergency conditions; The principles and tactics of emergency medical care; To carry out organizational and diagnostic measures aimed at rescue and save the human life. To be able to provide emergency medical care in the emergency state of a person	Substantiate and explain to the patient or his legal representative the need for emergency assistance and get consent for medical intervention. Explain the need and procedure for therapeutic measures of emergency medical care.	Be responsible for correct determination of urgent state, degree of its severity and tactics of emergency medical care. Responsible for timeliness of and quality of emergency medical care.

9.	The skills of performing medical manipulations (PC10)	To have specialized knowledge about the child, its organs and systems, the anatomical physiological and age peculiarities; Knowledge of algorithms of medical manipulations	Be able to carry out medical manipulations	Reasonably formulate and communicate to the patient, and/or their parents (guardians), specialists the conclusions about the need for medical manipulation	To be responsible for the quality of medical manipulations
10.	Ability to solve medical problems in new or unfamiliar environments in the presence of incomplete or limited information taking into account aspects of social and ethical responsibility (PC11)	Have specialist knowledge of standard child assessment techniques (at home, outdoors, in a health care setting) new or unfamiliar environments and in information-poor settings	Be able to assess the child's condition and identify the main clinical syndrome (or the severity of the victim's condition) in an information-poor environment, using standard techniques	In all circumstances, respecting appropriate ethical and legal standards, make an informed decision on the severity of the child's condition, the diagnosis and the organisation of the necessary medical measures according to the child's condition; complete the relevant medical documents	Be responsible for solving medical problems in new or unfamiliar environments in the presence of incomplete or limited information
11.	Ability to keep medical records, including electronic forms (PC16)	Know the system of official document circulation in the doctor's work, including modern computer information technology	Be able to determine the source and location of the required information depending on its type; To be able to process information and analyze received information	To receive the necessary information from the defined sources and form the relevant conclusions based on its analysis	Be responsible for the completeness and quality of the analysis of information and conclusions based on its analysis.
12.	Clearly and unambiguously communicate one's own knowledge, conclusions, and arguments about health problems and	To think critically about problems in the field and on the border of the fields of knowledge	Ability to solve problems in new and unfamiliar environments in the presence of incomplete or limited information, taking into	Use foreign languages in professional activities	Be responsible for contributing to professional knowledge and practice and/or evaluating results

	related issues to professionals and nonspecialists, particularly to trainees (PC21)		account aspects of social and ethnic responsibility		
13.	Adherence to ethical principles when working with patients (PC24)	Know ethical principles of Helsinki declaration of human rights as medical subjects, and other law of harmonization in medical practice	Be able to follow ethical principles when working with patients	Communicate ethical principles when working with patients	To be responsible implementation of ethical principles into practice
14.	Adherence to professional and academic integrity, to be responsible for the reliability of the obtained scientific results (PC 25)	Know the basic principles of academic and professional integrity		Adhere to the principles of academic and professional integrity	Be responsible for observing the principles of academic and professional integrity

**Normative content of higher education training,
formulated in terms of Program learning results (PLR)**

1. Have a thorough knowledge of the structure of professional activity. Be able to carry out professional activities that require updating and integration of knowledge. To be responsible for professional development, ability to further professional training with a high level of autonomy **PLR1**.
2. Understanding and knowledge of basic and clinical biomedical sciences, at a level sufficient to solve professional problems in the field of health care **PLR2**.
3. Identify and identify the leading clinical symptoms and syndromes; according to standard methods, using preliminary data of the patient's anamnesis, data of the patient's examination, knowledge about the person, his organs and systems, to establish a preliminary clinical diagnosis of the disease **PLR4**.
4. Collect complaints, life history and disease, assess the psychomotor and physical development of the patient, the state of organs and systems of the body, based on the results of laboratory and instrumental studies to assess information about the diagnosis, taking into account the patient's age **PLR5**.
5. Establish a final clinical diagnosis by making an informed decision and analysis of the obtained subjective and objective data of clinical, additional examination, differential diagnosis, adhering to the relevant ethical and legal norms, under the supervision of a physician-manager in a health care institution **PLR6**.
6. Order and analyze additional (mandatory and optional) examination methods (laboratory, functional and / or instrumental) for differential diagnosis of diseases **PLR7**.
7. To determine the main clinical syndrome or what causes the severity of patient condition by making an informed decision under various circumstances (at healthcare facility, or outside it), including in conditions of emergency, in the battlefield, in conditions of lack of information and limited time **PLR8**.

8. To determine the nature and principles of treatment of patients (conservative, operative), taking into account the age of the patient, in a health care facility, outside it and at the stages of medical evacuation, including in the field, on the basis of a preliminary clinical diagnosis, adhering to the relevant ethical and legal norms, by making an informed decision on existing algorithms and standard schemes. If necessary to expand the standard scheme and justify personalized recommendations under the supervision of a physician **PLR9**.
9. To determine the necessary mode of work, rest and nutrition based on the final clinical diagnosis, adhering to the relevant ethical and legal norms, by making an informed decision according to existing algorithms and standard schemes **PLR10**.
10. Assess and monitor the child's development, provide recommendations for breastfeeding and nutrition depending on age, organize preventive vaccinations on the calendar **PLR13**.
11. Define tactics and provide emergency medical care in emergencies for a limited time in accordance with existing clinical protocols and treatment standards **PLR14**.
12. Perform medical manipulations in a medical institution, at home or at work based on a previous clinical diagnosis and / or indicators of the patient's condition by making an informed decision, adhering to the relevant ethical and legal norms **PLR17**.
13. Plan and implement a system of anti-epidemic and prophylactic measures for the emergence and spread of diseases among the population **PLR19**.
14. Search for the necessary information in the professional literature and databases of other sources, analyze, evaluate and apply this information **PLR21**.
15. Organize the necessary level of personal safety (own and those being cared for) in the event of typical hazardous situations in the individual's field of work **PLR24**.
16. Clearly and unambiguously communicate knowledge, conclusions and arguments on health issues and related issues to professionals and non-specialists **PLR25**.
- 17.

Learning outcomes for Discipline:

- To assess information on the diagnosis at the conditions of health care, its unit, using knowledge of the laws of development and the occurrence of diseases in children, based on the results of examination of the patient and results of laboratory and instrumental investigations.
- To make differential diagnosis of disease.
- Prescribe treatment.
- To determine the prognosis of the disease.
- Keep medical records

2. Information volume of academic discipline

6 Credits ECTS 180 hours are allocated for studying a discipline.

Topic 1. Organizational principles of providing medical aid to children in Ukraine, fundamentals of the legislation of Ukraine on children's healthcare. Acquisition of ethics and deontology principles in a doctor's practice in Admitting Office.

Structure of the work of a medical institution, the organization of the work of a hospital. Acquaintance with work of a pediatrician, performing the work of a physician's assistant, maintaining medical documentation, familiarization with the principles of providing planned and emergency medical care to pediatric patients, regulatory documents necessary for the work of a pediatrician; use of modern patient counseling techniques in the practice of a pediatrician, application of the principles of ethics and deontology.

Topic 2. Compilation of anamnesis, objective examination of children with somatic pathology (clinical activity in Pediatric Department).

To take part in consultations of the head of the department and ward doctors, morning medical conferences, clinical conferences in the department, clinical and pathological conferences at the hospital, to be able to examine a pediatric patient (take medical history, perform an objective examination of a

patient, prescribe an examination and treatment plan). Check the blood pressure on the upper and lower extremities.

Topic 3. Analysis of the obtained results of additional examinations (laboratory, instrumental)

Learn to interpret the data of a complete blood count (CBC), urinalysis, biochemical blood tests, immunological tests, bacteria culture test (stool culture, throat culture, sputum culture, urine culture). Allergy testing and evaluation of the results (skin and blood tests). To learn the principles of conducting and interpretation of the results of ECG, Echo-CG, ultrasound of internal organs (size, location, structure), oesophago-gastroduodenoscopy with pH-metry. to take part and estimate the results of spirometry, bronchoscopy, learn how to assess the parameters of external respiration, interpret the data of radiological investigations of the respiratory, heart, digestive and urinary system.

Topic 4. Substantiation and formulation of a clinical diagnosis of the most common s children’s disease. Skills of recording medical documentation in pediatric inpatient department.

Skills in keeping medical records in a pediatric department. Based on anamnesis data, objective examination, laboratory and instrumental examination results establish and substantiate clinical diagnosis, fill in medical records, write down a list of prescriptions, keep temperature sheets and appointment sheets.

Topic 5. Providing emergency care in critical conditions of children.

Diagnosis and provision of assistance to children with convulsions, hyperthermia, exicosis and toxicosis, dizziness and collapse, acute respiratory, heart, kidney, liver failure, perform emergency aid to children with bronchial asthma attack, hypoglycemic and ketoacidotic coma.

Topic 6. Practical approach to the modern instrumental investigations in Pediatric Clinic.

Get acquainted with the scope and forms of work of functional diagnostics doctor, to familiarize himself with the features of performing various instrumental diagnostic interventions.

3. Structure of the educational discipline

№	Theme	Quantity of days
1.	Organizational principles of providing medical aid to children in Ukraine, fundamentals of the legislation of Ukraine on children’s healthcare. Acquirement of ethics and deontology principles in a doctor’s practice in Admitting Office	2
2	Compilation of anamnesis, objective examination of children with somatic pathology (clinical activity in f Pediatric Department)	5
3	Analysis of the obtained results of additional examinations (laboratory, instrumental)	3
4	Substantiation and formulation of a clinical diagnosis of the basic nosological diseases in children. Skills of recording medical documentation in pediatric inpatient department	5
5	Providing emergency care in critical conditions of children	3
6	Practical approach to the modern instrumental investigations in Pediatric Clinic	1
7	Differentiated credit (final test)	1
	Total:	20

4. Thematic plan of lectures. The curriculum is not provided for (order number № 882-3 on March 15, 2022)

5. Thematic plan of workshops

№	Theme	Quantity of days
1.	Organizational principles of providing medical aid to children in Ukraine, fundamentals of the legislation of Ukraine on children’s healthcare. Acquirement of ethics and deontology principles in a doctor’s practice in Admitting Office	2

2	Compilation of anamnesis, objective examination of children with somatic pathology (clinical activity in f Pediatric Department)	5
3	Analysis of the obtained results of additional examinations (laboratory, instrumental)	3
4	Substantiation and formulation of a clinical diagnosis of the basic nosological diseases in children. Skills of recording medical documentation in pediatric inpatient department	5
5	Providing emergency care in critical conditions of children	3
6	Practical approach to the modern instrumental investigations in Pediatric Clinic	1
7	Differentiated credit (final test)	1
	Total:	20

6. List of abilities and skills that the student should acquire during medical practical training in pediatric inpatient department and their evaluation in points

№	List of practical skills	Points (3-5)	Signature of a supervisor of practical training from the base of practical training
1	Examination of an ill child		
2	Ability to substantiate and formulate clinical diagnosis		
3	Compilation of medical history and other medical documentation.		
4	Measurement of blood pressure on the upper and lower extremities.		
5	Assessment of clinical blood analysis		
6	Assessment of clinical biochemical blood analysis		
7	Assessment of general urinalysis		
8	Assessment of bacteriological blood analysis		
9	Assessment of bacteriological sputum analysis		
10	Analysis of ECG		
11	Assessment of esophagogastroduodenoscopy with pH-metry		
12	Assessment of echocardiography data		
13	Assessment of bronchoscopy findings		
14	Assessment of spirometry data		
15	Assessment of the X-ray examination data of respiratory organs		
16	Assessment of the X-ray data of heart examination		
17	Assessment of X-ray examination data of digestive system organs		
18	Assessment of X-ray examination data of the urinary system organs		
19	Diagnostics and providing emergency medical aid to children in urgent conditions in pediatrics (convulsive, hyperthermia syndromes, toxicosis and exicosis)		

20	Diagnosics and providing emergency aid to children in urgent conditions in pediatrics (acute respiratory, cardiac insufficiencies)		
21	Diagnosics and providing emergency aid to children in urgent conditions in pediatrics (severe attack of bronchial asthma)		
22	Diagnosics and providing emergency aid to children in urgent conditions in pediatrics (anaphylactic shock (other allergic reactions))		
23	Diagnosics and providing emergency aid to children in urgent conditions in pediatrics (acute renal failure)		
24	Diagnosics and providing emergency aid to children in urgent conditions in pediatrics (acute liver failure)		
	Total number of points for practical skills		

Notes:

3 points - the student has mastered the theoretical material, has satisfactory practical training, but mistakes are made in performing manipulations, interpreting the results of additional research methods

4 points – the student has mastered the theoretical material, is able to methodically correctly examine the patient, perform diagnostic and therapeutic manipulations, but some inaccuracies in the answer and performance of practical skills are assumed

5 points – the student has mastered the theoretical material perfectly, methodically correctly examines the patient, performs diagnostic and therapeutic manipulations

7. Individual work. The curriculum is not provided for (order number № 881-3 on March 15, 2022).

8. Teaching methods.

Practical classes on the methodology of organization are clinical, aimed at repetition of the studied theoretical material, improvement of practical skills, as well as the ability to analyze and apply the acquired knowledge to solve practical tasks.

The main stage consists of the practical work of the student with pediatric patients. Students examine the patient, gather medical history, perform basic diagnostic manipulations, etc. Control of the main stage of the practical training is carried out by assessing the student's performance of practical skills by the supervisor from the medical institution. During practical classes the supervisor of practical training from the university discuss with students interesting clinical cases, medical and diagnostic measures performance, gives an explanation, emphasizes the peculiarities of the course of the disease in a specific child, possible optimization of treatment.

9. Methods of control

While studying the educational discipline "Medical practical training in pediatric inpatient department" the following types of control are used:

- Current control using standardized methods of evaluation knowledge, skills and abilities.
- Final control - differentiated assessment.

Evaluation of discipline is carried out on a traditional (four-point) and 200-point scale and consists of the sum of points for the student's performance of practical skills (current control), which are checked by the supervisor from the medical institution in which the practical training takes place (120-72 points), and points for the final control, which are awarded during the differentiated credit by the practical training supervisor from the university (maximum 80 points - minimum 50 points).

10. Current control

Current control is carried out daily by the supervisor of the practical training from the medical institution with a corresponding entry in the practice diary according to the specific goals of the topic by determining the level of acquired practical skills. While evaluating the current activity of a student in discipline, the quality criterion is the assimilation of practical skills, abilities, and knowledge provided

for by the program: checking the correctness of tasks, determining the level of acquired practical skills - taking a medical history and conducting an objective examination, evaluating the results of basic laboratory and instrumental tests, substantiation of diagnosis and appointments, ability to assist and perform medical manipulations; fill out medical documentation correctly.

Assessment criteria of skills

Excellent (“5”) – A student closely combines theory and practice and demonstrates proper performance of practical skills; easily interprets analysis results; knows methods of a patient’s examination; conducts differential diagnosis; solves situational advanced tasks, can summarize the material.

Good (“4”) – A student demonstrates performance (knowledge) of practical skills; uses theoretical knowledge properly to solve practical tasks; has required practical skills and knows methods of their performance within range above the necessary minimum.

Satisfactory (“3”) – A student answers to standard questions incompletely, additional questions are required; cannot build coherent, logical response; makes mistakes while answering and demonstrating practical skills; knows only minimum of the investigation methods.

Unsatisfactory (“2”) – A student cannot build a logical answer, does not answer additional questions, does not understand the required issue; makes significant mistakes during answer and demonstration of practical skills.

11. Form of the final control of learning performance

Differentiated credit is a form of final control of the student's mastering of theoretical and practical skills in the discipline during independent work in hospital and practical classes, which is conducted as a control measure. Students, who has fulfilled practical training program, compiled all summary documents (Diary and General digital report of practical skills) and received at least 72 points for current learning activity, are eligible for final control.

The final control of discipline involves demonstrating abilities and practical skills and solving 40 MCQ’s (2 points for a correct answer, duration of writing is 45 minutes). In case of introduction of distance learning, differentiated credit is conducted online on the MISA platform and involves solving test tasks.

The duration of differentiated credit is 2 academic hours (90 minutes).

To pass the final test a student must score at least 50 points.

The maximum number of points that a student can score when completing the differentiated credit is 80. The minimum number of points is no less than 50.

Credit is given by teachers, who carried out practical classes in the training group. The record is made in the student's academic book as well as credit and examination record list.

12. Scheme for accrual and distribution of points received by students:

The maximum number of points that a student can score for current academic activity per semester for admission to the exam is 120 points.

The minimum number of points that a student must score for the current academic activity per semester for admission to the exam is 72 points.

The calculation of points is carried out based on the student's marks according to the traditional scale (4-th point) during the study of the discipline, by calculating the arithmetic mean (AM) rounded up to two decimal places. Resulting value is converted into points according to multipoint scale as follows:

$$X = \frac{CA \times 120}{5}$$

For convenience, *table 1* is given for recalculation on a 200-point scale:

Table 1

Recalculation of the average assessment for the current activity in a multi-level scale for the disciplines completed

4- бальна шкала	200- бальна шкала	4- бальна шкала	200- бальна шкала	4- бальна шкала	200- бальна шкала	4- бальна шкала	200- бальна шкала
5	120	4.45	107	3.91	94	3.37	81
4.95	119	4.41	106	3.87	93	3.33	80
4.91	118	4.37	105	3.83	92	3.29	79
4.87	117	4.33	104	3.79	91	3.25	78
4.83	116	4.29	103	3.74	90	3.2	77
4.79	115	4.25	102	3.7	89	3.16	76
4.75	114	4.2	101	3.66	88	3.12	75
4.7	113	4.16	100	3.62	87	3.08	74
4.66	112	4.12	99	3.58	86	3.04	73
4.62	111	4.08	98	3.54	85	3	72
4.58	110	4.04	97	3.49	84	Менше 3	Недос- татньо
4.54	109	3.99	96	3.45	83		
4.5	108	3.95	95	3.41	82		

Points of discipline are independently converted both in the ECTS scale and in 4-grade (national) scale. The ECTS scale scores in the 4-grade scale are not converted and vice versa.

Scores of students who study according to one specialty, taking into account the number of points received from discipline are ranked on the ECTS scale as follows:

Evaluation of ESTS	Statistical index
A	Best 10% of students
B	Next 25% of students
C	Next 30% of students
D	Next 25% of students
E	Next 10% of students

Ranking by assigning ratings of "A", "B", "C", "D", "E" is conducted for students of this course, who learn same specialty and successfully completed the study of discipline. Students who have received an assessment of FX, F ("2") are not written to the list of ranked students. Students with a rating FX after recompiling automatically receive a score of "E".

Discipline points are independently converted into both the ECTS scale and the 4-point scale. The ECTS scale scores can't be converted to a 4-point scale and on the contrary. The scores of the students who have been studying under one specialty should be ranked in accordance with the ECTS scale (Table 2), taking into account the points which were scored in the discipline.

Points of discipline for students who have successfully completed the program are converted into a traditional 4-th grade scale according to absolute criteria, which are listed below:

Scores on discipline	Score according to the four-point scale
170 - 200	5
140 -169	4
139 -72	3
Low than minimum	2

Evaluation of ECTS is not converted to a traditional scale because the ECTS scale and the 4-th grade scale are independent.

Objectivity of evaluation of student's educational activity is checked by statistical methods (coefficient of correlation between ECTS and estimation according to national scale).

13. Methodological support

- Working program of the discipline
- Guideline for practical training for students
- Practice diary
- The list of questions submitted to the final control
- The list of standardized methods for performing practical skills
- Methodological support for final control

14. References

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