Syllabus of the discipline
PRACTICE IN SIMULATION MEDICINE "PEDIATRICS"

1. General information	
Name of the faculty	Medical faculty No.2
Educational program	22 “Healthcare”, 222 “Medicine”, second level of higher education (Master's Degree), full-time education
Academic year	2023/2024
Name of discipline, code (e-mail address on the website of Danylo Halytsky LNMU)	**Practice in simulation medicine "Pediatrics" EC 2.11**
Department (name, address, telephone number, e-mail)	Department of Pediatrics № 2, 79059, Lviv, Pylypa Orlyka str, 4, phone / fax: +38 (032) 2938250; Kaf_pediatrics_2@meduniv.lviv.ua
Head of the department (contact e-mail)	Professor Lesya BESH +38 (032) 2938250 lesya.besh@gmail.com
Studying year	6th
Semester	11-12
Type of discipline / module	practice by choice of elective block 2
Teachers	**Sergiy GERASYMOV**, (Ph.D., Associate Professor, dr.gerasimov@gmail.com) **Oksana MATSYURA** MD., Ph.D., Associate Professor, omatsyura@gmail.com **Olena BORYSIUK** (Ph.D., Associate Professor, olenabora@gmail.com)
Erasmus yes\no	No
The person responsible for the syllabus	**Olena BORYSIUK**, Ph.D., Associate Professor (olenabora@gmail.com) +380964263907
Number of credits ECTS	2
Number of hours (lectures/ practical classes/ independent work of students)	60 - (0 - lectures/ 35 - practical classes/ 25 - independent work)
Language of study	English
Information about consultations	According to the schedule during the academic year
Address, telephone number and work regulations of the clinical base	Lviv National Medical University Simulation Center, 79014, Mechnykova str, 8-b, Lviv, (+38 093 036 86 33)

2. Short annotation to the course

General characteristics, brief description of the course, features, benefits.

Critical conditions involving dysfunctions of vital organs and systems in children develop more rapidly than in adults, and therefore require urgent, coordinated action by medical personnel. The discipline "Practice in Simulation Medicine (Pediatrics)" is aimed at mastering by 6th year students the theoretical principles and practical skills of providing emergency care in case of various emergency conditions in children, taking into account their age and anatomical-physiological features.

The curriculum of the discipline Practice in simulation medicine "Pediatrics" includes modern achievements of emergency pediatrics (diagnosis, treatment and prevention of emergency conditions in children), aimed at reducing child morbidity and mortality.

During studies, a student should achieve a high level of not only theoretical but also practical professional training, understanding of general concepts and use of appropriate methodological approaches. The formation of comprehensive knowledge regarding the various clinical variants of the course and complications of the

most common diseases in children is expected, the ability to plan an urgent examination of a child who needs urgent care, and to interpret the results obtained, make a differential diagnosis and establish a clinical diagnosis.
A student should be able to apply current evidence-based medicine in determining patient management tactics. Particular attention is paid to the diagnosis of emergencies and improvement of giving emergency aid skills. Current issues of differential diagnosis and emergency care of the most common emergency conditions in children (acute respiratory and cardiac failure, circulation, coma, etc.) are offered for students to study and discuss.

3. The purpose and objectives of the course

1. The **purpose** of teaching the educational discipline Practice in Simulation Medicine "Pediatrics" is acquisition and deepening of knowledge, improvement of practical skills, abilities and other competences in matters of providing emergency care to children, diagnosis, treatment, prevention and dynamic monitoring of children with emergency conditions.
2. The main **task** of studying the discipline Practice in Simulation Medicine "Pediatrics is to form students' knowledge of the etiology, pathogenesis, clinical manifestations, diagnostics, principles of emergency care and treatment of the most common urgent and life-threatening conditions in children.
As a result of studying the discipline "Pediatrics" student ***should know:***

- Etiological factors of the most common pediatric emergencies;
- Pathogenesis of the most common pediatric emergencies;
- The clinical course and the main clinical symptoms, modern methods of diagnostics and treatment of the most common pediatric emergencies;
- Methods of emergency care and resuscitation (pre-hospital) in critical conditions caused by acute diseases and accidents;
- Peculiarities of resuscitation in children and newborns;
- Principles of emergency care, further treatment and monitoring for the most common emergencies in children.

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

- Take medical history;
- Examine a sick child;
- Make a preliminary clinical diagnosis;
- Analyze typical and not typical variants of diseases and complications in children that may require emergency care
- Plan an examination of a sick child;
- Interpret data of laboratory and instrumental tests in appropriate clinical emergencies
- Conduct a differential diagnosis, substantiate and formulate a clinical diagnosis of the most common emergency conditions in children
- Determine tactics and provide emergency care in specific clinical situations
- Prescribe a further treatment
- Determine the prognosis of emergency and intensive care

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	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 an appropriate 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	Certainty and perseverance on the tasks and responsibilities
GC13	Awareness of equal opportunities and gender issues
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
GC15	Ability to preserve and increase moral, cultural, scientific values and achievements of society based on an understanding of the history and patterns of development of the subject area, its place in the general system of knowledge about nature and society and in the development of society, technology and technology, to use various types and forms of physical activity for active recreation and healthy lifestyle

Professional (Special) 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 diagnosis
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	The ability to diagnose emergency conditions
PC8	Ability to determine the tactics and implement emergency medical care
PC9	Ability to carry out medical evacuation
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

Competences Matrix

Classification of competences	**Knowledge**	**Skills**	**Communication**	**Autonomy and responsibility**
	Kn1 Specialized conceptual knowledge acquired in the process of learning and / or professional activity at the level of the latest achievements, which are the basis for original	**Sk 1** Solving complex problems and issues that require updating and integrating knowledge, often in conditions of incomplete / insufficient	**C1** Clear and unambiguous communication of one's own conclusions, as well as the knowledge and explanations that substantiate them, to specialists and non-specialists, in particular to	**AR1** Decision-making in complex and unpredictable conditions, which requires the application of new approaches and forecasting **AR2** Responsibility for the development of professional

	thinking and innovation, in particular in the context of research work **Kn2** Critical understanding of problems during study and / or professional activities	information and conflicting requirements **Sk2** Conducting research and / or innovation activities	students **C2** Use foreign languages in professional activities	knowledge and practices, assessment of strategic team development **AR3** Ability to further study, which is largely autonomous and independent
General competences				
The ability to abstract thinking, analysis, and synthesis (GC1)	**Kn1**	**Sk 1**	**C1**	**AR1**
Ability to learn and master modern knowledge (GC2)	**Kn1**	**Sk 3**	**C2**	**AR3**
Ability to apply knowledge in practical situations (GC3)	**Kn1**	**Sk 2**	**C1**	**AR1**
Knowledge and understanding of subject area and understanding of professional activity (GC4)	**Kn2**	**Sk 2**	**C2**	**AR2**
The ability to adapt and act in a new situation (GC5)		**Sk 2**		**AR2**
Ability to make a justified decision (GC6)	**Kn1**	**Sk 3**	**C1**	**AR2**
Ability to work in a team (GC7)	**Kn2**	**Sk 3**	**C1**	**AR2**
Interpersonal skills interaction (GC8)	**Kn1**	**Sk 3**	**C1**	**AR2**
Ability to communicate in foreign language (GC9)			**C2**	
Skills in using information and communication technologies (GC10)	**Kn2**	**Sk 3**	**C2**	**AR3**
Ability to search, process and analyze information from various sources (GC11)	**Kn 2**	**Sk 2**	**C 2**	**AR 2**
Awareness and perseverance concerning taken tasks and duties (GC12)	**Kn2**	**Sk 3**		**AR3**
Awareness of equal opportunities and	**Kn 2**	**Sk 1**	**C 1**	**AR 1**

gender issues (GC13)				
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 (GC 14)	**Kn1**	**Sk 2**	**C1**	**AR3**
Ability to preserve and increase moral, cultural, scientific values and achievements of society based on an understanding of the history and patterns of development of the subject area, its place in the general system of knowledge about nature and society and in the development of society, technology and technology, to use various types and forms of physical activity for active recreation and healthy lifestyle (GC 15)	**Kn 2**	**Sk 3**		**AR 3**
Professional (Special) competences				
Ability to collect medical information about the patient and analyze clinical data PC1	**Kn 2**	**Sk 3**	**C 2**	**AR 2**
Ability to determine the required list of laboratory and instrumental studies and assess their results PC2	**Kn2**	**Sk 3**		**AR 1**
The ability to establish preliminary and clinical diagnoses PC3	**Kn 2**	**Sk 3**		**AR 2**
Ability to prescribe an appropriate diet in treatment and prevention of diseases PC5	**Kn 2**	**Sk 1**	**C 1**	**AR 1**
Ability to determine the principles and type of treatment and prevention of diseases PC6	**Kn 2**	**Sk 3**	**C1**	**AR 1**

Ability to diagnose emergency conditions PC7	**Kn 2**	**Sk 3**	**C 1**	**AR 2**
Ability to determine the tactics of emergency medical care PC8	**Kn 2**	**Sk 3**	**C 1**	**AR 2**
Ability to carry out medical evacuation PC9	**Kn 2**	**Sk 2**	**C 1**	**AR 2**
The skills of performing medical manipulations PC10	**Kn 1**	**Sk 3**	**C 1**	**AR 1**
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	**Kn 2**	**Sk 3**	**C1**	**AR 2**
Ability to keep medical records, including electronic forms PC16	**Kn2**	**Sk 1**	**C 1**	**AR 1**
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 PC21	**Kn2**	**Sk 3**	**C2**	**AR2**
Adherence to ethical principles when working with patients PC24	**Kn 1**	**Sk 2**	**C 1**	**AR 1**
Adherence to professional and academic integrity, to be responsible for the reliability of the obtained scientific results PC25	**Kn 2**	**Sk 2**	**C2**	**AR3**

4. Prerequisites of the course

Information on the disciplines, basic knowledge and learning results required for successful study and acquisition of competencies in this discipline is indicated.

- Medical Biology,
- Biological physics
- Normal human anatomy and physiology

- Pathological anatomy and physiology
- Histology, Cytology and Embryology
- Propaedeutic of pediatrics
- Pediatrics 4-5 courses
- Pharmacology
- Microbiology
- Clinical Immunology and Allergology
- Hygiene and Ecology
- Radiology

5. Program learning outcomes (PLO).
Compliance with the learning outcomes and competencies defined by the standard

Learning outcomes	PLO code	PC code
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.	PLO 1	GC1-15 PC 1-3 PC 6-11 PC 16 PC 21 PC 24-25
Understanding and knowledge of basic and clinical biomedical sciences, at a level sufficient to solve professional problems in the field of health care	PLO 2	GC 4; GC 6 GC 10-12 PC 1-3 PC 6-11 PC 21 PC 25
Specialized conceptual knowledge, which includes scientific achievements in the field of health care and is the basis for research, critical understanding of problems in the field of medicine and related interdisciplinary problems.	PLO 3	GC 1-3; GC 6-7; GC 9-11 PC 1-3 PC 11 PC 21 PC 24-25
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	PLO 4	GC 3-4 PC 16 PC 24
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	PLO 5	GC 1-3; GC 6-7 PC 1-3 PC 7-8 PC 11 PC 16 PC 24
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	PLO 6	GC 1-3; GC 6-8 PC 1-3 PC 7-8 PC 11 PC 16 PC 24
Order and analyze additional (mandatory and optional) examination methods (laboratory, functional and / or instrumental) for differential diagnosis of diseases	PLO 7	GC 8 PC 1-2 PC 16 PC 24
To determine the main clinical syndrome or what causes the severity	PLO 8	GC 3-4

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		PC 6-8 PC 9-11 PC 24
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	PLO 9	PC 1-2 PC 6-8 PC 10
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	PLO 10	PC 4-5 PC 24
Define tactics and provide emergency medical care in emergencies for a limited time in accordance with existing clinical protocols and treatment standards	PLO 14	GC 5; GC 7-8 PC 1 PC 7 PC 11
To organize an emergency medical aid and medical evacuation to the population and military in emergency situations and hostilities, including in field conditions	PLO 15	GC 7-8 PC 21
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	PLO 17	GC 14-15 PC 7 PC 11
Evaluate the state of functioning and restrictions of life of the person and the duration of disability with the registration of relevant documents at health care institution on the basis of data on illness and its course, features of human professional activity, etc. Keep a medical document on the patient and a certain contingent of the population on the basis of regulatory documents.	PLO 18	PC 16
Search for the necessary information in the professional literature and databases of other sources, analyze, evaluate and apply this information	PLO 21	GC 2 GC 9-10
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	PLO 24	GC 6 PC 21
Clearly and unambiguously communicate knowledge, conclusions and arguments on health issues and related issues to professionals and non-specialists	PLO 25	PC 11 PC 17 PC 21

List of learning results

Learning results code	**The scope of the learning results**	**Reference to the code of the competence matrix**
The code is created when the syllabus is filling (category: **Kn -**	Learning outcomes determine what the student must know, understand and be able to perform, after completing the discipline in accordance with the learning objectives. To enroll in the discipline, it is necessary to confirm the achievement of each learning result.	The symbol of the code of the program learning results in the Standard of Higher Education

Knowledge **Sk-** Skill, **C-** Competence, **AR** - Autonomy and Responsibility		
Kn-1	Have specialized knowledge about the child, organs and systems, anatomical and physiological features of children of different ages, know the methods and standard schemes of interviewing, taking genealogical information, pedigree, physical examination of patients of different ages. Know the methods of assessing of intrauterine fetal development. Know the stages and methods of examination of psychomotor and physical development of the child.	**PLO 1** **PLO 2** **PLO 5-7** **PLO 9** **PLO 14**
Sk- 1	Be able to conduct a conversation with the child and / or her parents (guardians), based on algorithms and standards. Use the principles of communication with parents of children with incurable diseases. Using standard techniques to conduct a physical examination of the patient. Be able to examine the psychomotor and physical development of the child. Be able to assess the quality of care, breastfeeding and child nutrition. Be able to conduct a comprehensive assessment of the child's health	
C-1	Effectively develop a communication strategy when communicating with the patient and / or his parents (guardians). Include information about the child's health or fetal development in the relevant medical records	
AR -1	Be responsible for the quality collection of information obtained through interviews, surveys, examinations, palpation, percussion of organs and systems and for timely assessment of the child's health, psychomotor and physical development of the child and fetal development and for taking appropriate measures	
Kn- 2	To have specialized knowledge about the child, her organs and systems, standard methods of laboratory and instrumental examinations	**PLO 1-3** **PLO 5-7** **PLO 9**
Sk- 2	To be able to analyze the results of laboratory and instrumental examinations and to make preliminary diagnosis	
C-2	To form and convey to the patient and/or his/her parents (guardians), experts' conclusions on the necessary	
AR -2	List of laboratory and instrumental studies Be responsible for deciding on the results evaluation of laboratory and instrumental examinations	
Kn-3	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	**PLO 1-3** **PLO 5-6**
Sk-3	Be able to conduct physical examination of the patient; Be 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	
C-3	On the basis of normative documents fill in medical documents (ambulatory and hospital cards, etc.)	
AR-3	On the basis of ethical and legal norms, be responsible for making reasonable decisions and actions on the correct preliminary and final clinical diagnosis	
Kn-4	Have specialized knowledge about algorithms and standard schemes of nutrition for healthy children and during the treatment of diseases	**PLO-1-2** **PLO 8**
Sk-4	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	
C-4	Formulate and communicate to the patient and/or their parents (guardians), conclusions of specialists on the nutrition of healthy children and in the treatment of diseases	
AR-4	Be responsible for the reasonableness of nutritional determinations for healthy children and in the treatment of illness	
Kn-5	Have specialized knowledge of algorithms and standard methods for disease treatment	**PLO 1-2** **PLO 8-9**
Sk-5	Able to determine the principles and methods of treatment of disease	
C-5	To form and convey to the patient and/or his/her parents (guardians), experts own conclusions about the principles and methods of the treatment	
AR-5	Be responsible for deciding on the principles and methods of treatment of disease	
Kn-6	Have a specialized knowledge about the child, his organs and systems, standard methods of pediatric examination (at home, on the street, in a health care facility) in the absence of information	**PLO 1-2** **PLO 5-6** **PLO 8-9**
Sk-6	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)	**PLO 14** **PLO 17**
C-6	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.	
AR-6	Be responsible for the timely and effective medical measures for the diagnosis of emergency conditions.	
Kn-7	Know the legal framework for the provision of emergency medical care. Have specialized knowledge about urgent pediatric care.	**PLO 1-2** **PLO 5-6** **PLO 8-9**
Sk-7	Be able to identify emergencies; principles and tactics of emergency medical care; to carry out organizational and diagnostic measures aimed at saving child`s life.	
C-7	Reasonable formulate and communicate to the patient or his / her legal representative the need for emergency care and obtain consent for medical intervention	
AR-7	Be responsible for the correct diagnosis of the emergency condition, severity and tactics of emergency medical care	
Kn-8	Have specialized knowledge about the algorithms of medical evacuation measures.	**PLO 1-2** **PLO 8**

Sk-8 ***C-8*** ***AR-8***	Be able to carry out medical and evacuation measures. Explain the necessity and order of medical evacuation measures. Be responsible for the timeliness and quality of medical evacuation measures.	
Kn-9 ***Sk-9*** ***C-9*** ***AR-9***	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.	**PLO 1-2** **PLO 8-9**
Kn-10 ***Sk-10*** ***C-10*** ***AR-10***	Know how to solve medical problems in new or unfamiliar environments in the presence of incomplete or limited information. Be able 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. Communicate methods of solving of medical problems in new or unfamiliar environments in the presence of incomplete or limited information. Be responsible for solving medical problems in new or unfamiliar environments in the presence of incomplete or limited information.	**PLO 1-3** **PLO 5-6** **PLO 8** **PLO 14** **PLO 17** **PLO 25**
Kn - 11 ***Sk - 11*** ***C - 11*** ***AR - 11***	Know the system of official document management in the work of a doctor, including modern computer information technology. Be able to determine the source and location of the required information depending on its type. Obtain the necessary information from a specific source and on the basis of its analysis to form appropriate conclusions. Be responsible for the completeness and quality of the analysis of information and conclusions based on its analysis	**PLO 1** **PLO 4-7**
Kn - 12 ***Sk - 12*** ***C - 12*** ***AR - 12***	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 account aspects of social and ethnic responsibility. Use foreign languages in professional activities. Be responsible for contributing to professional knowledge and practice and/or evaluating results.	**PLO 1-3** **PLO 15** **PLO 24**
Kn - 13 ***Sk - 13*** ***C - 13*** ***AR - 13***	To know the basic ethical and deontological principles necessary in professional activity. Be able to apply basic ethical considerations (motives) in the performance of professional duties. To comply with the requirements of ethics, bioethics and deontology in their professional activities. Be responsible for compliance with the requirements of ethics, bioethics and deontology in their professional activities.	**PLO 1-8** **PLO 10**
Kn - 14 ***C - 14*** ***AR - 14***	Know the basic principles of academic and professional integrity Adhere to the principles of academic and professional integrity Use the principles of academic and professional integrity and knowledge of foreign languages Be responsible for compliance with the principles of academic and professional integrity	**PLO 1-3**

	6. Format and scope of the course			
Format of the course	**Full-time lesson**			
Type of activity	**Number of hours**			**Number of groups**
Lectures (L)	**0**			According to a shedule
Workshops (W)	**35**			
Independent work of student (IWS)	**25**			
	7. Topics and content of the course			
Code of the type of the classes	***Topic***	***Content of the studying***	***Learning outcomes code***	***Teacher***
W-1	Cardiopulmonary resuscitation for children	General signs of a threatening condition in a child. Current recommendations for cardiopulmonary resuscitation of children. Determination of the level of consciousness. Checking for breathing and patency of the respiratory tract. Signs of cardiac arrest and circulatory failure. The basic principles of resuscitation in children of different ages. Lung ventilation during resuscitation with a resuscitation bag or mouth-to-mouth breathing. Algorithm of actions in case of cardiac arrest. Indications for chest compressions, medication and use of a defibrillator. Treatment of respiratory and cardiovascular failure. Maintaining the appropriate blood circulation. Recovery position.	***PLO 1-10*** ***PLO 14-15*** ***PLO 17-18*** ***PLO 21*** ***PLO 24-25***	Asoc. Prof. Oksana. Matsyura Sergey Gerasimov Olena Borysiuk
W-2	Emergency care for acute respiratory failure in children	Acute respiratory failure in children, classification. Main clinical symptoms and syndromes of acute stenotic laryngotracheitis, acute epiglottitis, extraneous body, severe attack of bronchial asthma, bronchiolitis, pneumonia. Comparison of the clinical features and clinical course. The data of laboratory and instrumental investigations to identify diseases that lead to acute respiratory failure. Diagnosis and differential diagnosis. Emergency treatment. Patient management tactics. Algorithm of actions in case of tension pneumothorax.	***PLO 1-10*** ***PLO 14-15*** ***PLO 17-18*** ***PLO 21*** ***PLO 24-25***	Asoc. Prof. Oksana. Matsyura Sergey Gerasimov Olena Borysiuk
W-3	Diagnosis and	Sinus tachycardia. Paroxysmal	***PLO 1-10***	Asoc. Prof.

	emergency care of life-threatening heart rhythm disorders in children. Emergency care for children with signs of acute heart failure	supraventricular tachycardia. Atrial fibrillation and flutter, ectopic atrial tachycardia, AV nodal tachycardia, ventricular tachyarrhythmia, Wolff-Parkinson-White syndrome. Long Q-T interval syndrome, complete atrioventricular block, cardiac arrhythmias due to digoxin toxicity. Classification of rhythm and conduction disorders in children. Clinical manifestations and ECG criteria. Additional methods of examination. Algorithm of emergency care and further treatment of children with rhythm and conduction disorders. Characteristics of the main antiarrhythmic drugs used in pediatric practice. Risk of sudden cardiac death in children with supraventricular tachycardia The Stokes-Adams attack. Clinical manifestations of heart failure in children of different ages. Management tactics for myocarditis, endocarditis, pericarditis, cardiomyopathies, congenital and acquired heart defects in children. Emergency treatment in acute heart failure.	***PLO 14-15*** ***PLO 17-18*** ***PLO 21*** ***PLO 24-25***	Oksana. Matsyura Sergey Gerasimov Olena Borysiuk
W-4	Basic principles of management children with different types of shock	Definition and distinction of types of shock (cardiogenic, hypovolemic, infectious-toxic (septic), anaphylactic, neurogenic shock and shock due to acute endocrine insufficiency). The main clinical symptoms. Diagnostic algorithm: laboratory, instrumental methods of examination, consultations of specialists. Differential diagnosis. Treatment tactics and emergency care.	***PLO 1-10*** ***PLO 14-15*** ***PLO 17-18*** ***PLO 21*** ***PLO 24-25***	Asoc. Prof. Oksana. Matsyura Sergey Gerasimov Olena Borysiuk
W-5	Coma and impaired consciousness in the pediatric patient. Principles of diagnosis and emergency care	Disorders of consciousness: principal pathogenetic mechanisms. Diseases that can lead to the development of coma in children. Diagnostic algorithm for disorders of consciousness. Examination of an unconscious patient. Determination of severity of neurological disorders and monitoring. Peculiarities of the clinical course of post-hypoxic coma, hyperosmolar coma, diabetic coma, hypoglycemic coma, hepatic coma, uremic coma, coma due to infection and inflammatory lesions of the central nervous system.	***PLO 1-10*** ***PLO 14-15*** ***PLO 17-18*** ***PLO 21*** ***PLO 24-25***	Asoc. Prof. Oksana. Matsyura Sergey Gerasimov Olena Borysiuk

		Differential diagnosis. Emergency care of comatose patient. Basic principles of treatment.		
IWS 1	Management of a pediatric casualty during warfare	Principles of first aid. Initial examination of an injured child. Stop of the bleeding (tourniquet, hemostatic bandage). Restoration of airway patency. Detection of chest injuries. Prevention of hypothermia. The procedure for moving to the shelter sector.	***PLO 1-10*** ***PLO 14-15*** ***PLO 17-18*** ***PLO 21*** ***PLO 24-25***	Asoc. Prof. Oksana. Matsyura Sergey Gerasimov Olena Borysiuk
IWS 2	Emergency care for hyperthermia and seizures in children	Causes and mechanisms of hyperthermia and convulsions in children. Main clinical symptoms of convulsions in children. Types of fever. Diagnostic criteria. Classification. Clinical types of convulsions. Data of laboratory and instrumental investigations. Therapeutic tactics for seizures in children. Emergency care.	***PLO 1-10*** ***PLO 14-15*** ***PLO 17-18*** ***PLO 21*** ***PLO 24-25***	Asoc. Prof. Oksana. Matsyura Sergey Gerasimov Olena Borysiuk
IWS 3	Poisoning in children. Principles of diagnosis and emergency care.	Poisoning with carbon monoxide, medicines, food, household chemicals - clinical course and algorithm of emergency care.	***PLO 1-10*** ***PLO 14-15*** ***PLO 17-18*** ***PLO 21*** ***PLO 24-25***	Asoc. Prof. Oksana. Matsyura Sergey Gerasimov Olena Borysiuk
IWS 4-8	Coincides with topics of lessons (W 1-12)	In accordance with the allotted time, students independently prepare for workshops	***PLO 1-10*** ***PLO 14-15*** ***PLO 17-18*** ***PLO 21*** ***PLO 24-25***	Asoc. Prof. Oksana. Matsyura Sergey Gerasimov Olena Borysiuk

The following teaching methods are used to develop skills:

- ✓ ***verbal/oral*** (explanation, cases);
- ✓ ***visual*** (observation, illustration, demonstration);
- ✓ ***practical*** (near the patient's tub, work in the admission department, departments of functional diagnostics, rehabilitation, manipulation, on simulators, etc.);
- ✓ ***explanatory-illustrative*** or ***information-receptive***, which involves the presentation of ready-made information by the teacher and its assimilation by students.

8. Verification of learning outcomes

Current control is carried out during the training sessions and aims to check the assimilation of students' educational material (it is necessary to describe the forms of current control during training sessions). Forms of assessment of current educational activities should be standardized and include control of theoretical and practical training. For the final grade for the current educational activity a 4-th grade (national) scale is used. Practical classes during the study of the discipline "Paediatrics and Neonatology" are structured and include comprehensive assessment of all types of learning activities (learning tasks) that students perform during practical classes.

Current control

Learning outcomes code	***Code of the type of the classes***	***Verifying learning outcomes method***	***Enrollment criteria***

Kn -1-14 *Sk-1-13* *C-1-14* *AR-1-14*	***W 1-5***	Current control is carried out at each practical lesson. The initial stage - answers to at least 10 multi choice questions (MCQs). Main stage: The student answers standardised questions that are necessary to understand the current topic. Demonstrates knowledge and skills of practical skills in accordance with the topic of the practical session. This stage is controlled by the teacher's assessment of the student's ability to work with a virtual patient, demonstrate practical skills on a manikin, interpret the results of laboratory and instrumental examinations, know the algorithms for providing emergency care, etc.) The final stage: The student solves a typical situational task on the topic of the class; The teacher summarizes the lesson, gives students a task for independent work, indicates the key issues of the next topic and offers a recommended reading list for independent study	Initial stage: 10-9 MCQs = 5 points; by 8-7 MCQs = 4 points; 6-5 MCQs = 3 points; 4 or less MCQs = 0 points. Main stage: It is rated with traditional grades of 5, 4, 3, 2. **Excellent** "5" - correct, clear logical answer to all standardized questions of the current topic; correct performance of practical skills of mastering the methods of examination of the patient; brief interpretation of survey results; differential diagnosis. **Good** "4" - correctly and essentially answers all standardized questions of the current topic; demonstrates performance/knowledge of practical skills; differential diagnosis. **Satisfactory** "3" - incompletely, with the help of additional questions, answers all standardized questions of the current topic; cannot independently build a clear, logical answer; makes mistakes when answering and demonstrating practical skills. **Unsatisfactory** "2" - does not know the material of the current topic, can’t formulate 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

Kn - 1-14 Sk - 1-13 C - 1-14 AR- 1-14	IWS 1-3	Control of execution of independent work, which is provided for in the topic along with classroom work, is carried out during the current control of the topic at the corresponding classroom session. Mastering of topics that are assigned only to independent work is controlled during by the final control	"Passed" or "Failed" at the end of semester

Final control		
General evaluation system	Participation in the work during the semester / credit on a 200-point scale	
Rating scales	traditional 4-point scale, multi-point (200-point) scale, ECTS rating scale	
Admission to final control	The student attended all practical (laboratory, seminar) classes and received at least 120 points for current performance	
Type of final control	***Methods of final control***	***Enrollment criteria***
Credit	All topics for current control submitted. Grades from the 4-point scale are converted into points on a multi-point (200-point) scale in accordance with the provision "Criteria, rules and procedures for evaluating the results of student learning activities"	The maximum number of points is 200. The minimum number of points is 120

The calculation of points is carried out based on the student's grades according to the 4-th grads (national) scale 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:

$$x = \frac{CA \times 200}{5}$$

9. Course policy

It is based on the full implementation of the curriculum of the course (attending workshops, working academic debts up, performing independent tasks), academic integrity, lack of plagiarism.

Observance of academic integrity by students:

1. Independent performance of educational tasks, tasks of current and final control of results;
2. Links to sources of information in the case of the use of ideas, developments, statements, information;
3. Observance of the legislation on copyright and related rights.
4. Providing reliable information about the results of their own (scientific, creative) activities, used research methods and sources of information.

10. References

Main sources

1. Nelson textbook of Pediatrics 21st Edition by Robert M. Kliegman, Joseph W. St Geme III, et al. Philadelphia: Elsevier, 2020.
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Additional sources

1. Disque K. Pediatric advance life support. Provider handbook. Satori Continuum Publishing, 2016. 65 p.
2. Fleisher & Ludwig's Textbook of Pediatric Emergency Medicine / [edited by] K. N. Shaw, R. G. Bachur. 8 th ed. Philadelphia: Wolters Kluwer, 2021.
3. Textbook of Paediatric Emergency Medicine / [edited by] P. Cameron, G. Browne, B. Mitra, S. Dalziel, S. Craig. 3rd ed. Philadelphia: Elsevier, 2019.
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5. Pediatric Secrets / 6th ed. by Polin R.A., Ditmar M.F. / Mosby, 2015.- 752 p.
6. Frank G., Zaoutis L., Catallozzi M., Zaoutis L.B., Shah S.S. The Philadelphia guide: inpatient pediatrics / LWW, 2019.- 608 p.
7. Zideman, D. A., Singletary, E. M., De Buck, E.,et al. (2015). Part 9: First aid: 2015 International Consensus on First Aid Science with Treatment Recommendations. Resuscitation, 95, e225. http://www.cprguidelines.eu/assets/downloads/costr/S0300-9572(15)00368-8_main.pdf Accessed 19/11/2015.

Information resources

https://emedicine.medscape.com/pediatrics_general
https://pubmed.ncbi.nlm.nih.gov/
https://www.who.int/
https://www.aap.org/en-us/Pages/Default.aspx
http://www.generalpediatrics.com/

11. Equipment, logistics and software of the discipline / course

- Program of the discipline
- Plans of practical classes and independent work of students
- Methodical guidelines of practical classes for the students
- Methodical guidelines for the teachers
- Methodical materials that provide independent work of the student
- MCQs and clinical cases for practical classes

12. Additional information

Materials related to the educational and organizational process (thematic plan, schedule of classes, schedules of consultations and work up of missed classes) are available on the website of the department: Kaf_pediatrics_2@meduniv.lviv.ua
Educational and methodical materials (topic guidelines) for preparation for practical classes, independent work, self-control, abstracts of lectures are available on the MISA platform in the section "Department of Pediatrics №2" on the website of LNMU named after Danylo Halytsky: http://misa.meduniv.lviv.ua/ login / index.php
The work plan of the student scientific group with the lists of student scientific society members are posted at the beginning of the academic year on the website of the department.

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Head of the Department Lesya BESH, Doctor of Science, Professor _____