

MINISTRY OF HEALTH OF UKRAINE
ODESSA NATIONAL MEDICAL UNIVERSITY
Department of pediatrics № 1

Syllabus of educationally selective discipline
«Practical issues of paediatric cardiology».

Scope:	<i>Total hours for discipline:</i> 45 hours, 1.5 credits. Semester XI – XII. 6 year
Days, hours, place:	According to the schedule of classes. Department of Pediatrics No. 1. St. Ac. Vorobyova 3, Communal non-commercial enterprise "Odessa Regional Children's Clinical Hospital" of the Odessa Regional Council, 9-storey building, 7th floor.
Teacher (s)	Aryayev M.L. Corresponding Member National Academy of Medical Sciences of Ukraine, Doctor of Medical Sciences, Professor, Head of the Department. Associate professors: PhD Kaplina L.E., Biryukov V.S., Senkivska L.I. Assistants: Ph.D. doctor of philosophy Usenko D.V. Assistants: Pavlova V.V., Selimkhanova D.S., Bishley N.O., Streltsov M.S., Talashova I.V.
Contact information:	Information by phone: Kaplina Larisa Evgenievna, head teacher: 0509707163. Senkivska Liudmyla Ivanivna, responsible for organizational and educational work at the department: 0679590334 or by landline of the department: (048) 705 53 21 - laboratory assistant, Olkhovska Veronika Olexandrivna. E-mail: pediatrics50@gmail.com. Personal consultations: from 2:00 pm to 5:00 pm every Thursday and from 9:00 am to 2:00 pm every Saturday. On-line consultations: from 4:00 pm to 6:00 pm every Thursday and from 9:00 am to 2:00 pm every Saturday. A link to an online consultation is provided to each group separately during the class.

COMMUNICATION

Communication will be carried out in the classroom.

During distance learning, communication is carried out through the Microsoft Teams platform, as well as through e-mail correspondence, via Viber messengers (through groups created in Viber for each group, separately through the head of the group).

MINISTRY OF HEALTH OF UKRAINE
ODESSA NATIONAL MEDICAL UNIVERSITY
Department of pediatrics № 1

ANNOTATION OF THE EDUCATIONAL DISCIPLINE

Prerequisites and post requisites of the course:

Prerequisites: Ukrainian language (professional), foreign language (professional), Latin language and medical terminology, medical biology, medical and biological physics, medical chemistry, biological and bioorganic chemistry, human anatomy, histology, cytology and embryology, physiology, microbiology, virology and immunology, life safety; fundamentals of bioethics and biosafety, pathomorphology, pathophysiology, pharmacology, hygiene and ecology, propaedeutics of pediatrics.

Postrequisites: pediatrics, internal medicine, surgery, obstetrics and gynecology, infectious diseases, epidemiology and principles of evidence-based medicine, oncology and radiation medicine, traumatology and orthopedics, anesthesiology and intensive care, emergency medical care, hygiene and ecology, internal medicine, surgery, obstetrics and gynecology, infectious diseases, palliative medicine, general practice (family medicine).

Purpose: The application's acquisition of the higher education of additional knowledge and mastery of professional competences in providing emergency care to children, based on the competences obtained during the study of previous disciplines.

Task:

1. Formation of skills and communication skills with a sick child or his parents.
2. Improving the skills of justifying a clinical diagnosis, drawing up a plan for laboratory and instrumental research in cardiac diseases in children.
3. Mastering the ability to determine tactics management and prevention of common cardiac diseases in children.

Expected learning outcomes. As a result of studying, the applicant of the higher education must:

Know:

Algorithm of communication with a sick child or his parents in common cardiac diseases in children. Features of hemodynamic disorders and clinical symptoms in children with congenital and acquired heart defects. Features of cardiomyopathies, heart rhythm disorders and arterial hypertension in children. Algorithm for providing emergency care in acute heart failure and hypertensive crisis in children.

Be able to:

Communicate with a sick child or his parents with common cardiac diseases in children.

Conduct auscultation of a sick child in bed and on a Simulator.

Analyze the results of ECG and X-ray of chest organs in children.

MINISTRY OF HEALTH OF UKRAINE
ODESSA NATIONAL MEDICAL UNIVERSITY
Department of pediatrics № 1

To evaluate the indicators of arterial hypertension depending on gender and height according to centile nomograms and tables.

Provide emergency care for acute heart failure and hypertensive crisis.

Conduct clinical examination the children of different ages according to standard methods.

Analyze the results of laboratory, functional and instrumental research.

Carry out differential diagnosis and substantiate the clinical diagnosis.

Determine the tactics and provide emergency medical care in emergency situations in children.

Determine the nature and principles of treatment of sick children on the basis of a preliminary clinical diagnosis, observing the relevant ethical and legal norms, by making a reasoned decision according to existing algorithms and standard schemes.

Perform medical manipulations (according to list 5) for common diseases in children.

Keep medical records for common diseases in children

DESCRIPTION OF THE EDUCATIONAL DISCIPLINE

The discipline will be conducted in the form of seminars (16 classroom hours); organizing the student's self-make work (29 hours).

Teaching methods: discussion of theoretical issues, frontal survey on basic terminology, testing, role-playing games for mastering communication skills with a child or his parents, planning and carrying out preventive vaccinations for children and adults (work in a team).

The content of the educational discipline

Topic No.1. Cardiomegaly in children with congenital heart defects .

Differential diagnosis of congenital heart defects in children. Features of hemodynamic disorders and clinical symptoms in children with congenital heart defects.

Topic No.2. ECG analysis in children with congenital heart defects.

Practicing the practical skills of auscultation at the bedside of a sick child and on the simulator. Treatment of children with congenital heart defects. Emergency care for chronic heart failure.

Topic No.3. Cardiomegaly in children with acquired heart defects.

Differential diagnosis of acquired heart defects in children. Features of hemodynamic disorders and clinical symptoms in children with acquired heart defects.

MINISTRY OF HEALTH OF UKRAINE
ODESSA NATIONAL MEDICAL UNIVERSITY
Department of pediatrics № 1

Topic No.4. ECG analysis in children with acquired heart defects. Practicing the practical skills of auscultation at the bedside of a sick child and on the simulator. Treatment of children with acquired heart defects.

Topic No. 5 Cardiomegaly in children with carditis and cardiomyopathies. Differential diagnosis of carditis (myocarditis, endocarditis, pericarditis) and cardiomyopathies in children. Features of the clinical picture. Description and interpretation of radiographs of chest organs. ECG analysis in children with carditis and cardiomyopathies. Treatment of carditis and cardiomyopathies, calculation of liquor drugs. Emergency care for acute heart failure.

Topic No.6. Heart rhythm disorders in children. Differential diagnosis of heart rhythm disorders in children. Features of hemodynamic disorders and clinical symptoms in children with heart rhythm disorders in children. ECG analysis in children with heart rhythm disorders. Practicing the practical skills of auscultation at the bedside of a sick child and on the simulator. Treatment of children with heart rhythm disorders.

Topic No. 7 Hypertension in children. Differential diagnosis of primary and secondary arterial hypertension in children. Mastering the practical skills of assessing arterial hypertension indicators depending on gender and height, according to centile nomograms and tables.

Topic No.8. Treatment of arterial hypertension in children. Emergency care for hypertensive crisis.

List of recommended reading:

Basic:

1. **Nelson textbook** of pediatrics, 2 volume set. **Edition : 21 st**, 2019. PDF format. [http : // pediacalls . com / e - books / nelson - textbook - of - pediatrics -21 st - edition /](http://pediacalls.com/e-books/nelson-textbook-of-pediatrics-21-st-edition/)

Additionally

1. Emergency medical care: a new clinical protocol (Order of the Ministry of HEALTH of the country from 05.06.2019, №1269) - English translation .
2. Cardiovascular diseases. WHO. [https://www.who.int/ru/news-room/fact-sheets/detail/cardiovascular-diseases-\(cvds\)](https://www.who.int/ru/news-room/fact-sheets/detail/cardiovascular-diseases-(cvds))
3. Heart defects: symptoms, types and methods of treatment. Oxford-Medical Clinic . <https://oxford-med.com.ua/>
4. 2020 ESC Guidelines for the management of adult congenital heart disease. European Heart Journal (2020) 00, 183 ESC GUIDELINES. doi: 10.1093 / eurheartj / ehaa554
5. What is dangerous heart disease? Medicom. - 2022.

MINISTRY OF HEALTH OF UKRAINE
ODESSA NATIONAL MEDICAL UNIVERSITY
Department of pediatrics № 1

<https://medikom.ua/ru/chem-opasen-porok-serdca/>

6. Goyal A. _ Cardiopulmonary Resuscitation / Amandeep Goyal; Joseph C. Sciammarella; Austin S. Cusick; Pujan H. Patel // Last Update: June 8, 2021.
<https://www.ncbi.nlm.nih.gov/books/NBK470402/>
7. Pediatric Cardiac Arrest. Written by Priscilla Yu, Ivie D. Esangbedo, Lakshmi Raman and Cindy Darnell Bowens. Submitted: January 17th, 2020
Reviewed: April 5th, 2020 Published: May 19th, 2020. DOI: 10.5772 /
intechopen.92381
<https://www.intechopen.com/chapters/72241>

EVALUATION

Forms and methods of current control: oral (survey, participation in a role-playing game), practical (working with the patient and his parents), assessment of communication skills and activity in the class

Current assessment criteria for the seminar session:

Excellent "5"	The applicant for higher education is fluent in the material, takes an active part in role games, discussing and solving a situational clinical problem, confidently demonstrates practical skills during the examination of a sick child and interpretation of clinical, laboratory and instrumental studies, expresses his opinion on the topic of the lesson, demonstrates clinical thinking.
Good "4"	The applicant for higher education is well versed in the material, participates in the role games, discussion and solution of the situational clinical problem, demonstrates practical skills during the examination of a sick child and interpretation of clinical, laboratory and instrumental studies with some errors, expresses his opinion on the topic, demonstrates clinical thinking.
Satisfactorily "3"	The applicant for higher education does not have enough material, insecurely participates in the role games, discussion and solution of the situational clinical problem, demonstrates practical skills during the examination of a sick child and interpretation of clinical, laboratory and instrumental studies with significant errors.
Unsatisfactorily "2"	The applicant for higher education does not have the material, does not participate in the role games, discussion and solution of the situational clinical problem, does not demonstrate practical skills during the examination of a sick child and the interpretation of clinical, laboratory and instrumental studies.

FINAL EXAMINATION - a credit given to the applicant for higher education who has completed all sections of the educational program of a selective discipline,

MINISTRY OF HEALTH OF UKRAINE
ODESSA NATIONAL MEDICAL UNIVERSITY
Department of pediatrics № 1

actively participated in seminars, has an average current grade of at least 3.0 and has no academic debt. Possibility and conditions of obtaining additional (bonus) points: not provided.

SELF-MAKE WORK OF HIGHER EDUCATION ACQUIRES

Independent work involves only preparation for each seminar.

POLICY OF THE EDUCATIONAL DISCIPLINE

Deadline and retake policy:

1. Class absences for disrespectful reasons are worked out according to the schedule of the teacher on duty.
2. Class absences for valid reasons are worked out according to the individual schedule with the permission of the dean's office.

Policy of the academic integrity:

Adherence to academic integrity by students involves:

- ♦ independent performance of educational tasks, tasks of current and final control of studying outcomes (for persons with special educational needs this requirement is applied taking into account their individual needs and capabilities);
- ♦ links to sources of information in the case of the use of ideas, developments, statements, information;
- ♦ compliance with the law on copyright and related rights;
- ♦ providing reliable information about the results of their own (scientific, creative) activities, used research methods and sources of information.

Unacceptable in educational activities for participants in the educational process are:

- ♦ use of family or business relationships to obtain a positive or higher assessment in the implementation of any form of control over learning outcomes or preferences in scientific work;
- ♦ use of prohibited auxiliary materials or technical means (cheat sheets, abstracts, headphones, telephones, smartphones, tablets, etc.) during control measures;
- ♦ passing the procedures of control of learning outcomes by fictitious persons.

For violation of academic integrity, students may be held subject to the following academic liability:

- reduction of the results of assessment of exams, tests, etc.;
- re-assessment (exam, test, etc.);
- appointment of additional control measures (additional individual tasks, tests, etc.);

MINISTRY OF HEALTH OF UKRAINE
ODESSA NATIONAL MEDICAL UNIVERSITY
Department of pediatrics № 1

Policy of the attendance and lateness:

Dress code: a medical gown that completely covers outerwear or medical pajamas, a medical cap, a mask, changeable shoes.

Equipment: notebook, pen, stethoscope, medical latex gloves.

Health status: the applicant of the higher education suffering from acute infectious diseases, including respiratory diseases, are not allowed to study.

Start of classes: 8.30 am.

The applicant who is late for class may be present, but if the teacher put "absence" in the journal, he must work it out in the general order.

Mobile devices: can be used with the permission of the teacher, if they are needed to perform the task.

Behavior in the audience: working, calm.