

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

Syllabus of educationally selective discipline
" Emergencies in pediatric allergology "

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, through viber messengers (through groups created in viber for each group, separately through the head of the group).

ANNOTATION OF THE EDUCATIONAL DISCIPLINE

The subject of study of the selective discipline - Emergencies in pediatric allergology
Prerequisites and postrequisites of the discipline (the place of the discipline in the educational program):

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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.

A task:

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

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

Know: Algorithms of action in detecting anaphylactic shock, acute urticaria, Quincke's edema, allergic-toxic-dermatological syndromes, acute respiratory failure, broncho-obstructive syndrome and osmotic status.

Be able to:

- Determine tactics and provide emergency medical care for anaphylactic shock
- Determine the severity of violations of important systems of life
- Provide emergency care for acute urticaria
- Perform differential diagnosis of rash
- Determine tactics and provide emergency medical care for Quincke's edema
- Highlight symptoms that could threaten a child's life
- Determine tactics and provide emergency medical care for allergic-toxic-dermatological syndromes
- Assess the severity of the child's condition.
- Substantiate the clinical diagnosis
- Determine the doctor's tactics in acute respiratory failure

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Perform airway management and artificial ventilation skills using a mask and an Ambu bag on simulation equipment.

Provide emergency care for acute respiratory failure

Determine the doctor's tactics for broncho-obstructive syndrome

Communicate with the parents of a child with complaints of a prolonged cough according to the algorithm of communication with the parents of a child with diseases foreign body in the respiratory tract cystic fibrosis, Lymphogranulomatosis

Conduct a survey of the child's parents to determine the risk of the likelihood of bronchial asthma in the child.

Determine tactics and provide emergency medical care for asthmatic status

Conduct a clinical examination of children of all ages according to standard methods.

Analysis of the results of laboratory, functional and instrumental studies.

Conduct medical manipulations with common diseases in children.

Maintain medical records for common illnesses 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 1. Anaphylactic shock . Pathophysiological mechanisms of dysfunction of the immune system in children. Etiological factors of anaphylactic shock. Clinic. Determining the severity of violations of important systems of life. Urgent care.

Topic 2. Acute urticaria. Etiology, pathogenesis, clinic. Differential diagnosis of rash. Treatment.

Topic 3. Quincke's edema Etiology, pathogenesis, clinic, differential diagnosis. Isolation of symptoms that may threaten the life of the child (swelling of the larynx). Urgent care. Treatment. Prevention.

Topic 4. Allergo-toxic-dermatological syndromes. *Allergo-toxic-dermatological syndromes* - Stevens-Johnson, Lyell. Etiology, pathogenesis, clinic, differential diagnosis of rash. Assessment of the severity of the child's condition. Substantiation of the clinical diagnosis. Urgent care.

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Topic 5. Acute respiratory failure. Etiology, pathogenesis, classification, clinic, diagnostics, differential diagnostics, substantiation of clinical diagnosis. Providing emergency care. Performing the skill of ensuring airway patency and artificial ventilation of the lungs using a mask and an Ambu bag on simulation equipment.

Topic 6. Broncho-obstructive syndrome . Etiology, pathogenesis, classification, clinic, diagnostics. Differential diagnosis (stenosing laryngotracheitis, foreign body of the respiratory tract, asthma, cystic fibrosis). Mastering the practical skill of providing airway patency with a mask or Ambu bag on simulation equipment.

Topic 7. Asthmatic status. Etiology, pathogenesis, classification, clinic. Assessment of the severity of the condition based on the results of an objective and laboratory examination. Providing emergency care. Perform airway management with a mask or Ambu bag on simulation equipment.

Topic 8. Features of communication with parents. Processing communication skills of communication with the child's parents about the likelihood of having bronchial asthma in a child. Development of communication skills of communication with parents of a child with chronic cough. Providing emergency care.

List of recommended reading:

Basic:

1. 1. Nelson Textbook of Pediatrics / R. M. Kliegman [et al.] ; ed. R. E. Behrman. - 21th ed. - Edinburgh [etc.]: Elsevier, 2020. - Vol. 1. – LXXV.

2. Nelson Textbook of Pediatrics [Text] / R. M. Kliegman [et al.] ; ed. R. E. Behrman. - 21th ed. - Edinburgh [etc.] : Elsevier, 2020. - Vol. 2. - LXXV.

Additionally

1. Chang A.B., Marchant J.M. Approach to chronic cough in children. - Literature review: Nov 18, 2020. – UpToDate: https://www.uptodate.com/contents/approach-to-chronic-cough-in-children?search=chronic%20cough%20in%20children&source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1
2. Tuba Tuncel, Ozlem Sancaklı, Ozlem Bag, Hafize Selma Cetin, Emine Ece Özdoğan, Physicians' Approach to Anaphylaxis in Childhood, Pediatric Emergency Care, 10.1097/PEC.0000000000002064, 37, 12, (e1425-e1428), (2020).
3. Joshua L Kennedy, Stacie M Jones , Nicholas Porter , Marjorie L White , Grace Gephardt , Travis Hill , Mary Cantrell , Todd G Nick , Maria Melguizo , Chris Smith , Beatrice A Boateng , Tamara T Perry , Amy M Scurlock , Tonya M Thompson. High-fidelity hybrid simulation of allergic emergencies demonstrates improved pre-

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paredness for office emergencies in pediatric allergy clinics *J Allergy Clin Immunol Pract* Nov-Dec 2013;1(6):608-17.e1-14. doi: 10.1016/j.jaip.2013.07.006. Epub 2013 Sep 21 <https://pubmed.ncbi.nlm.nih.gov/24565708/>

4. Guidance on Completing a Written Allergy and Anaphylaxis Emergency Plan *Pediatrics* (2017) 139 (3): e20164005. <https://doi.org/10.1542/peds.2016-4005>
5. C Santa , C L Valente , M Mesquita J Lopes , I Cardoso, P Barreira , I Lopes Acute urticaria in children: from pediatric emergency department to allergology consultation at a central hospital *Eur Ann Allergy Clin Immunol* 2021 May 4. doi: 10.23822/EurAnnACI.1764-1489.204. <https://pubmed.ncbi.nlm.nih.gov/33944542/>

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.

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

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.

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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.