

MINISRTY OF HEALTH OF UKRAINE
ODESSA NATIONAL MEDICAL UNIVERSITY
Department of Pediatrics №1

Syllabus of educational selective discipline
"Critical conditions in neonatology. "

Scope::	<i>Total number of hours per discipline: 45 hours, 1.5 credits. IX – X semester, 5th year</i>
Days, time, place:	According to the schedule of classes. Regional Children's Clinical Hospital Department of Pediatrics №1 3 Street Akademika Vorobyova, 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: PhD Usenko D.V. Assistants: Pavlova V.V., Selimkhanova D.S., Byshley N.A., Streltsov M.S. Assistants: Pavlova V.V., Selimkhanova D.S., Byshliei N.A.,
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 elective discipline - Critical states in neonatology.

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Prerequisites and postrequisites of the course:

Prerequisites: Ukrainian language (for professional purposes), foreign language (for professional purposes), 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; basics of bioethics and biosafety, pathomorphology, pathophysiology, pharmacology, hygiene and ecology, propaedeutics of pediatrics.

Postrequisites: internal medicine, pediatrics, 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 applicant for higher education is to acquire additional knowledge and mastery of professional competencies and skills of observation of a healthy and sick child by a family doctor on the basis of competencies acquired in the study of previous disciplines.

Tasks:

1. Formation of skills and communication skills with parents of a healthy and sick newborn child.
2. Improving the skills of substantiating a clinical diagnosis, drawing up a plan for laboratory and instrumental research in a newborn child
3. Mastering the ability to determine the tactics of management, emergency care and prevention of common neonatal diseases in children

Expected learning outcomes.

As a result of studying, the applicant for higher education must:

Know: Algorithms for providing respiratory support to newborns, Algorithm for providing emergency care for respiratory failure. Algorithm for the replacement blood transfusion operation for newborns.

Be able to:

- To determine the nature and principles of treatment of sick newborn children based on a preliminary clinical diagnosis, observing 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 newborn children.
- Keep medical documentation for common diseases in children.

DESCRIPTION OF THE EDUCATIONAL DISCIPLINE

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

Teaching methods: discussion of theoretical issues, face-to-face survey on basic terminology, testing, role-playing games for mastering communication skills of communication with a sick child or his parents with common diseases in children, (work in a team).

The content of the selective educational discipline

Topic 1. Hemolytic disease of newborns (HDN).

Etiology, pathogenesis, classification, clinic, diagnosis, differential diagnosis, justification of clinical diagnosis. Treatment. Prevention of hemolytic disease of newborns (HDN).

Topic 2. Hemolytic disease of newborns. Treatment.

Treatment. Phototherapy. Indications for blood replacement surgery. Performing a replacement blood transfusion operation on simulation equipment.

Topic 3. Respiratory distress syndrome (RDS) in premature newborns.

Surfactant system of lungs in newborns. Pathophysiological mechanisms of impaired lung function. Clinic. Determining the severity of gas exchange disorders. Assessment according to the Dovnes, Silverman-Anderson scale. Examination methods and their interpretation (radiological, laboratory). Treatment, methods of respiratory support (artificial lung ventilation, spontaneous breathing under constant positive pressure).

Topic 4. Meconium aspiration syndrome.

Etiology, pathogenesis, clinic, diagnosis. Treatment. Emergency care of a newborn baby born inactive with meconial waters on simulation equipment.

Topic 5. Pneumonia of newborns.

Etiology, pathogenesis, classification, clinic, diagnosis (radiological and laboratory), differential diagnosis, justification of clinical diagnosis. Prevention.

Topic 6. Pneumonia of newborns. Treatment.

Treatment. Methods of respiratory support (artificial lung ventilation, spontaneous breathing under constant positive pressure).

Topic 7. Bronchopulmonary dysplasia.

Etiology, pathogenesis, classification, clinic, diagnosis (radiological and laboratory), differential diagnosis, justification of clinical diagnosis. Treatment. Methods of respiratory support (artificial lung ventilation, spontaneous breathing under constant positive pressure). Planning the child's discharge from the hospital. Specific prevention of rhino-syncytial infection.

Topic 8. Respiratory disorders in newborns.

Definition. Causes of respiratory disorders in newborn children. Assessment according to the Dovnes, Silverman-Anderson scale and the WHO scale. Methods of examination of newborns and their interpretation (radiological, laboratory).

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List of recommended literature:

The main:

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.

Additional

1. Avery's Diseases of the Newborn Book Tenth Edition •2018. Copyright © 2018 Elsevier Inc. All rights reserved. Copyright © 2018 Elsevier Inc. All rights reserved/ No of pages 1656

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

EVALUATION OF KNOWLEDGE (DISTRIBUTION OF POINTS)

Forms and methods of current control: oral, written, practical.

Final control - a test

Means of diagnosing learning success: questions for current control, clinical tasks, role-playing cases, questions for final control, performance of practical skills on simulation equipment, individual tasks.

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	The applicant for higher education does not have the material, does not

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"2"	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.

Independent study of etiology, pathogenesis, classification, clinic, diagnosis, hemolytic disease of the newborn.

Self-study of indications for replacement blood transfusion. Calculation of blood volume during transfusion.

Independent study of etiology, pathogenesis, clinic, diagnosis and treatment of RDS in newborns.

Independent study of the technique of tracheal intubation and surfactant administration

Independent study of etiology, pathogenesis, clinic, diagnosis and principles of treatment of meconium aspiration syndrome in newborns.

Independent study of etiology, pathogenesis, classification, clinic, diagnosis of pneumonia in newborn children.

Independent study of the principles of treatment of pneumonia in newborn children.

Independent study of etiology, pathogenesis, classification, clinic, diagnosis (radiological and laboratory), and treatment of bronchopulmonary dysplasia in newborn children.

Independent study of the etiology of respiratory disorders. Dovnes, Silverman-Anderson and WHO scales. Degrees of severity of respiratory disorders.

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:

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- ♦ 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.

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.