

Odesa National Medical University
Department of anesthesiology, intensive care
and emergency medicine

Syllabus of selective discipline
"Principles of intensive therapy of critical conditions at various
stages of medical evacuation"

Amount	4 credits / 120 hours
Semester, year of study	2 year of study, 3 semester
Days, time, place	According to the schedule in the auditorium of the Department of Anesthesiology, IC and Emergency Medicine, Zabolotny str., 26
Teacher(s)	Oleg Oleksandrovych Tarabrin, H.W.S.T. of Ukraine, doctor of medicine, professor, head of the department of anesthesiology, IC and Emergency Medicine
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Workplace	Studying rooms of the Department of Anesthesiology, IC and Emergency Medicine, Zabolotny str., 26
Consultations	Face-to-face consultations: Friday - from 14:00 till 16:00, online consultations: Friday - from 14:00 till 16:00 Microsoft Teams or via Telegram/Viber

COMMUNICATION.

Communication with graduate students is carried out through face-to-face meetings. In case of transition to distance learning, communication with graduate students will be carried out using e-mail and programs: Microsoft Teams, Moodle, Telegram and Viber.

COURSE ABSTRACT.

Subject of discipline study

The subject of study "Principles of intensive care of critical conditions at various stages of medical evacuation" is ethics, methodology, methods of scientific research, etiology of diseases, pathogenesis, clinical manifestations, diagnosis, differential diagnosis, emergency care at the scene, intensive care and anesthesia.

Prerequisites and post-requisites of the course (the place of the discipline in the educational program): are based on the study of human anatomy, medical biology, histology, pathomorphology, physiology, pathophysiology, medical and biological physics, bioorganic and biological chemistry, microbiology, virology and immunology, pharmacology, clinical pharmacology and clinical pharmacy, propaedeutics of internal medicine, infectious diseases, general practice (family medicine), traumatology, which involves "vertical" integration with these disciplines and the formation of skills to apply knowledge in the process of further education and professional activity.

The purpose of discipline

The purpose is to acquire and deepen knowledge, abilities, skills and other competences necessary in professional activity, formation of skills in scientific research work, obtaining new facts and their implementation in practical medicine and other spheres of social life.

Tasks of the discipline:

- 1) determining the specifics of providing medical care at the stages of evacuation, knowing the principles of intensive therapy, analgesia and anesthesia for patients in critical conditions.;
- 2) assimilation of principles of deontological approach to patients, basics of methods of comprehensive examination and treatment of patients, formulation of expert conclusions;
- 3) mastering the basics of health care legislation and the main provisions of directive documents defining the activities of health care bodies;
- 4) knowledge of etiological and pathogenetic factors of the most common situations requiring emergency assistance at the scene, intensive therapy and

anesthesia;

5) the ability to conduct surveys and physical examinations of patients, analyze a typical clinical picture, compile a patient examination plan, analyze data from laboratory and instrumental research methods, diagnose and provide emergency medical care in emergency situations.

Expected results.

A graduate student (applicant) should know:

- organization of emergency medical assistance services of Ukraine (legal and regulatory framework)
- purpose, ethical, deontological and legal aspects of emergency medical care for victims at various stages of evacuation
- primary medical sorting of victims, criteria for determining sorting categories of victims
- the role of emergency medical care departments of multidisciplinary hospitals in optimizing the provision of medical care for mass injuries

A graduate student (applicant) must be able to:

- conduct a primary and secondary examination of the victim, determine the patient's condition using the ABC DE method, the AVPU algorithm
- carry out medical triage of victims, fill out a medical triage card
- provide emergency, primary medical care at the stages of evacuation of victims
- provide intensive therapy to patients with polytrauma at various stages of medical care

COURSE DESCRIPTION

Forms and methods of education

The educational discipline " Principles of intensive care of critical conditions at various stages of medical evacuation " consists of 4 ECTS credits (120 hours): 60 praktikal hours and 60 hours for self-education work.

Teaching *in practical classes* is provided by methodological developments for each practical lesson, visual teaching aids for each lesson (presentations, educational films), information resource of the department, algorithms for

performing practical skills and structured algorithms for skill control.

The study of the discipline is implemented on the basis of the following teaching methods:

- by dominant means of education: verbal, visual;
- blitz survey;
- group discussions on problematic issues;
- individual control interview;
- logical exercises;
- situational tasks

Content of the academic discipline.

Topic 1. Structure, main tasks, functions of the center, teams, emergency medical care department

Topic 2. Overview of the scene of the event, ergonomic principles in the work of the EMD field team

Topic 3. Examination of the victim: initial examination, tasks of the initial examination. Determination of further tactics at the scene

Topic 4. Examination of the victim: secondary examination at the scene and on the evacuation route

Topic 5. Sorting of victims at the scene

Topic 6. Emergency medical care for disorders of the respiratory and cardiovascular systems

Topic 7. Cardiopulmonary resuscitation

Topic 8. Diagnostics and medical care for insects of various etiologies

Topic 9. General issues of detoxification therapy at the pre-hospital stage. Antidote therapy

Topic 10. Algorithm of the actions of the emergency medical aid team, features of providing assistance in the event of a traffic accident

Topic 11. Diagnostics and features of providing care for injuries of different localization

Topic 12. Diagnosis and therapy of polytrauma

Topic 13. External and internal bleeding. Hemorrhagic shock

Topic 14. Features of traumatic shock. Tactics of intensive therapy .

Recommended literature

Basic:

- 1.A. Ilko Anesthesiology, intensive care and resuscitation. Medicine

2018. 39-45. 4. Anesthesiology and intensive care / L. P. Chepkii, L. V. Usenko, Yu. Yu. Kobelyatskyi, S. O. Dubrov; edited by FS Glumcher. - Kyiv: VSV "Medicine" 2021, pp. 310-318.

2. Emergency and urgent medical care. In VI Vol. IV. Clinical routes (protocols) of the patient during the provision of emergency medical care at the pre-hospital stage: textbook for students. Higher Education Closed / Krylyuk V.O. etc. - Kyiv: Ozhiva. - 2020. - 300 p.

3. Local protocol for providing medical care to patients with polytrauma Order of the Health Department of the Odesa Regional State Administration No. 301 of May 20, 2019."

4. Order No. 1192 of July 11, 2022 of the Ministry of Health of Ukraine "On the approval of the Standards of medical care "Provision of medical care to victims of hemorrhagic shock at the pre-hospital and hospital stages of trauma"".

5. Order No. 1269 dated June 5, 2019 of the Ministry of Health of Ukraine "On the approval and implementation of medical and technological documents on the standardization of emergency medical care."

6. Order of the Ministry of Health of Ukraine dated March 2, 2022 No. 391 "On approval
Methodical recommendations on the phasing of providing medical aid to the wounded and injured".

7. Order of the Ministry of Health of Ukraine dated 24.02.2022 No. 368 "On approval of the Standard
of emergency medical care "Medical triage during mass arrival of victims at the early hospital stage"".

8. Order of the Ministry of Health of Ukraine dated 15.03.2022 No. 488 "On approval
Methodological recommendations for the provision of emergency medical care to victims at the pre-hospital stage in the conditions of hostilities/martial law".

9. Order of the Ministry of Health of Ukraine dated February 28, 2022 No. 389 "On approval
Methodical recommendations on primary surgical treatment of gunshot wounds".

10. Order of the Ministry of Health of Ukraine dated 05.03.2022 No. 418 "On approval
Methodical recommendations regarding the application of the protocol of massive transfusion of blood components to the victims during the evacuation stages".

11. Order dated 09.03.2022 No. 441 "On approval of procedures for providing pre-medical assistance to persons in emergency situations".

Additional:

1. Order of the Ministry of Health of Ukraine dated 13.03.2022 No. 478 "On approval Methodical recommendations on the organization of providing emergency medical aid to victims of chemical agents during the evacuation stages".
2. Notes on Clinical Airway Management. D. John Doyle. January 2018.- 150 p.
3. Atlas of common pain syndromes. Steven D. Waldman. Fourth edition. Philadelphia, PA: Elsevier, 2019. – 555 p.
4. Complications of Regional Anesthesia: Principles of Safe Practice in Local and Regional Anesthesia. Brendan T. Finucane, Ban CH Tsui/ Springer Internat. Publ. 2017. – 494 p.
5. Hiroyuki S, Eichi I. General anesthesia for elective cesarean section in resource-limited settings. J World Fed Soc Anaesth. 2019 September

Information resources

1. Ministry of Health of Ukraine - <https://moz.gov.ua/>
2. Association of anesthesiologists of Ukraine - <https://aaukr.org/>
3. Official website of the American Association of Anesthesiologists
<http://www.asahq.org/homepageie.html>
4. Official website of the Association of Anesthesiologists of Ukraine -
<http://aay.org.ua>
5. The official website of the British scientific periodical "British Medical Journal" - <http://www.bmj.com>
6. The official website of the European Intensive Care Association
<http://www.esicm.org>
7. Official website of the European Association of Regional Anesthesia
<http://www.esraeurope.org>
8. The official website of the international scientific periodical "Anesthesia and Analgesia" - <http://www.anesthesia-analgesia.org>
9. The official website of the international scientific periodical "The Lancet" - <http://www.thelancet.com>
10. Search resource of medical literature: section "Anesthesiology and intensive therapy" -
<http://www.twirpx.com/files/medicine/anaesthesiology/anesthesiology/>
11. Search resource of medical literature "Cochrane Collaboration"
<http://www.cochrane.org>
12. Search resource of medical literature "PubMed"
<http://www.ncbi.nlm.nih.gov/PubMed/>
13. Search resource of scientific literature "Scopus" - <https://www.scopus.com>

Search resource of scientific literature "Web os Science"

<http://ipscience.thomsonreuters.com/product/web-of-science/>

EVALUATION

Current control is carried out in practical classes in accordance with formulated tasks for each topic. When evaluating educational activities, preference is given to standardized control methods: oral survey, structured written works, discussions, role-playing games, reports. When mastering each topic for the current educational activity, the student is given grades on a 4-point traditional scale. The current academic performance is calculated as the average current score, i.e., the arithmetic average of all grades received by the graduate student (student) on a traditional scale, rounded to 2 (two) decimal places, for example 4.75.

Evaluation of current discipline control:

The meaning of the "**excellent**" rating : the graduate student shows special creative abilities, knows how to acquire knowledge independently, finds and processes the necessary information without the help of a teacher, knows how to use the acquired knowledge and skills to solve problems, is able to produce innovative ways of solving problems, convincingly argues answers, independently reveals his own gifts and inclinations.

The value of the "**good**" grade : the graduate student is fluent in the studied amount of material, applies it in practice, freely solves exercises and problems in standard situations, independently corrects the mistakes made, the number of which is insignificant.

The value of the rating is "**satisfactory**" : the graduate student is able to master a significant part of the theoretical material, but mainly in a reproductive form, demonstrates knowledge and understanding of the main provisions, can analyze the educational material with the help of the teacher, correct errors, among which there are a significant number of essential ones.

The value of the rating is "**unsatisfactory**" : the graduate student has mastered the material at the level of individual fragments, which constitute a small part of the educational material. Only those graduate students who have no academic debt and have an average score for the current educational activity of at least 3.00 are admitted to the final certification.

Forms and methods of final control

The final control of the discipline "Fundamentals of analgesia and intensive therapy in emergency and planned abdominal surgery" is a credit.

Evaluation of the success of the study of subjects of the discipline is carried out according to the traditional 4-point scale.

At the end of the study of the discipline, the current success rate is calculated as the average current score, that is, the arithmetic average of all the grades received by the graduate student on a traditional scale, rounded to two decimal places . Post-graduate students (seekers) who have completed the curriculum in the discipline in full, have no academic debt, their current grade point average is 3.00 or more, receive credit in the last class, which is presented as "passed" / "failed". Conversion of the traditional national assessment into multi-point (maximum 200 points) is mandatory. The obtained average score for the discipline is converted into a score on a 200-point scale by multiplying the arithmetic average by 40.

The discipline is credited to a graduate student (seeker) if he has scored at least 120 points.

Scale for assessing the level of mastery of the discipline

Assessment on a 200-point scale	Evaluation on a national scale	
185 - 200	Perfectly	5
151 - 184	Fine	4
120-150	Satisfactorily	3
<120.0	Unsatisfactorily	2

Evaluation of self-education work:

Assessment of students' self-education work, which is provided for in the topic along with classroom work, is carried out during the current control of the topic in the corresponding classroom session, as well as at the final control (credit).

COURSE POLICY ("rules of the game")

Deadlines and Rescheduling Policy

Tasks must be completed on time according to the deadline. For untimely completion of the assignment, the graduate student receives an unsatisfactory grade. If the student of higher education was absent from classes for any reason, then the practice is carried out within the deadlines set by the teacher in accordance with the "Regulations on the organization of the educational process at ONMedU" (link to the regulations on the university's website <https://onmedu.edu.ua/wp-content/uploads/2020/01/osvitnijproces.pdf>) . Reassembly is carried out in accordance with the approved schedule. Policy on academic integrity The policy of the educational component is based on the principles of academic integrity (link to the regulations on the university website <https://onmedu.edu.ua/wp-content/uploads/2020/07/polozhennja-prodobrochesnist.pdf>) and is determined by the system of requirements, which the teacher presents to the applicant when studying the educational component:

- independent performance of educational tasks, tasks of current and final control of learning results (for persons with special educational needs, this requirement is applied taking into account their individual needs and capabilities);
- references to sources of information in the case of using ideas, developments, statements, information.

Attendance and Tardiness Policy

To obtain a satisfactory grade, it is mandatory to attend and work in classroom classes. A graduate student is allowed to be late for no more than 10 minutes.

Mobile devices

It is permissible to use mobile devices during the lesson with the teacher's permission.

Behavior in the audience

While in the audience, the following values should be cultivated: respect for colleagues; tolerance for others; receptivity and impartiality; argumentation of agreement or disagreement with the opinion of other participants in the discussion, as well as one's own opinion; respecting the dignity of the opponent's personality during communication; compliance with the ethics of academic relationships.