

MINISTRY OF HEALTH OF UKRAINE
KHARKIV NATIONAL MEDICAL UNIVERSITY

Department of Emergency and Urgent Health Care, Orthopedics and Traumatology
Academic year 2021-2022

SYLLABUS OF EDUCATIONAL DISCIPLINE

Training of reserve officers "**Emergency and urgent health care**"
(name of the educational component)

Normative or selective educational component is normative

The form of education is full-time

Field of knowledge 22 "Health"

Specialty (specialization) 221 "Dentistry"

Educational-professional program (educational-scientific program) RC 38

Educational-professional program (educational-scientific program) **The second**
(master's) level of higher education

Course 5

The syllabus of the discipline was considered at a meeting of the Department of Emergency and Urgent Health Care, Orthopedics and Traumatology

Protocol № 15 from 27.08.2021
Signature of the head of the department

Approved by the methodical commission of KhNMU on the problems of professional training of surgical profile

Protocol № 4 from 02.09.2021
signature of the head of the methodical commission



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Full-time consultations: schedule and venue according to the schedule of the department.

Online consultations : schedule and venue by prior arrangement with the teacher.

Location: classes are held in the Kharkiv Regional clinical hospital 7, 8, 9 floors according to the schedule and on the basis of the stimulation center 4 on top of the ULK building.

INTRODUCTION

The syllabus of the discipline "Emergency and urgent health care" is compiled in accordance with the educational-professional program (hereinafter - OPP) "Dentistry" and the Standard of Higher Education of Ukraine (hereinafter - Standard), the second (master's) level, areas of knowledge 22 health", specialty "Dentistry".

Description of the discipline (abstract).

The program of the discipline "Emergency and urgent health care" for higher medical educational institutions of Ukraine of the IV levels of accreditation is based on the provisions of the Law of Ukraine "On emergency medical care" (hereinafter the Law) of July 5, 2012 № 5081-VI.

The discipline studies the features of the system of Emergency and Urgent Health care and Disaster Medicine in Ukraine. The drafting takes into account the existing clinical protocols in Ukraine for emergency medicine as well as the recommendations of the European Council of Resuscitation (2010, 2015) and the All-Ukrainian NGO "All-Ukrainian Council of Reanimation (Resuscitation) and Emergency Care".

The subject of the discipline "Emergency and Urgent Health care" is a clinical discipline that systematizes the previously acquired knowledge of students in human anatomy and physiology, pharmacology, hygiene, pathological anatomy, pathological physiology, military and emergency surgery, emergency surgery, therapy, traumatology and institution theoretical knowledge and practical skills in organizing and providing emergency medical care to patients in emergencies in the pre-hospital and early hospital stages, including during peacetime emergencies.

Discipline status - normative discipline in a mixed **format** (accompanied by Moodle, teaching the discipline involves a combination of traditional forms of classroom learning with elements of e-learning, which uses special information, interactive technologies, online counseling, etc.

Interdisciplinary links:

Prerequisites and additional requirements for this discipline: The study of the discipline involves the prior mastering of disciplines in medical biology, normal and pathological anatomy, normal and pathological physiology, biochemistry, microbiology, propaedeutics of diseases, pharmacology and medical formulations, epidemiology and principles of evidence-based medicine, general surgery, trauma, pharmacology, military field surgery.

Postrequisite. The main provisions of the discipline should be applied in the study of related disciplines during the 5th year of training in higher education institutions in the programs of the third educational and scientific level of higher education.

Link to the discipline page in MOODLE <http://distance.knmu.edu.ua>

1. PURPOSE AND TASKS OF THE COURSE

1.1. **The purpose of studying the discipline** is to train a general practitioner who is able to provide medical care, to study the features of the organization and provision of emergency and urgent medical care to the victim at the pre-hospital and early hospital stage, master the knowledge of the discipline and learn and practice practical skills and individual medical manipulations.

1.2 The tasks of studying the discipline "Emergency and Urgent Health care" **are as follows:**

- Formation of communicative and moral-deontological skills of a specialist doctor and the principles of consistency in "Emergency and Urgent Health care";
- To study the main provisions of the organization and provision of emergency care at the stages of medical evacuation;
- study and master the main topics of the course of "Emergency and Urgent Health care";
- study the methods and types of medical triage of the wounded;
- master the techniques and methods of providing medical care in the conditions of emergency.

1.3. Competences and learning outcomes, the formation of which is facilitated by the discipline (relationship with the normative content of training of higher education, formulated in terms of learning outcomes in the OPP and Standard).

1.3.1. The study of the discipline provides students' mastery of competencies:

The main objectives of the course are the acquisition by students of competencies in accordance with the general and professional competencies of the educational-professional program "Medicine" of the second level of higher education in the specialty 221 "Dentistry ":

Integral competence	this is an understanding of the algorithm of actions of emergency crews in providing emergency and urgent medical care at the scene, during
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	transportation to a medical institution and in the emergency department.
General Competences (GC)	<ol style="list-style-type: none"> 1. Ability to abstract thinking, analysis and synthesis. 2 Knowledge and understanding of the subject area and understanding of professional activity. 3 Ability to apply knowledge in practice. 4. Ability to communicate in the state language both orally and in writing. 5 Ability to communicate in English. 6 Skills in the use of information and communication technologies. 7 Ability to search, process and analyze information from various sources. 8 Ability to adapt and act in a new situation. 9 Ability to identify, pose and solve problems. 10 Ability to be critical and self-critical. 11 Ability to work in a team. 12 The desire to preserve the environment. 13 Ability to act socially responsibly and consciously. 14. 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 and freedoms in Ukraine. 15. The ability to preserve and multiply moral, cultural, scientific values and achievements of society based on understanding 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. <p>forms of physical activity for active recreation and a healthy lifestyle.</p>
Special (professional) competencies (SC)	<ol style="list-style-type: none"> 1. Ability to collect medical information about the patient and analyze clinical data. 2. Ability to interpret the results of laboratory and instrumental research. 3. Ability to diagnose: determine the preliminary, clinical, final, concomitant diagnosis, emergencies. 4. Ability to plan and implement measures for the prevention of diseases of organs and tissues of the oral cavity and maxillofacial region. 5. Ability to design the process of providing medical care: to determine approaches, plan, types and principles of treatment of diseases of organs and tissues of the oral cavity and maxillofacial region. 6. Ability to determine the rational mode of work, rest, diet in patients in the treatment of diseases of organs and tissues of the oral cavity and maxillofacial region. 7. Ability to determine the tactics of management of patients with diseases of the organs and tissues of the oral cavity and maxillofacial region with concomitant somatic diseases. 8. Ability to perform medical and dental manipulations. 9. Ability to treat major diseases of organs and tissues of the oral cavity and maxillofacial region. 10. Ability to organize and conduct medical and evacuation measures. 11. Ability to determine tactics, methods and provide emergency medical care. 12. Ability to organize and conduct screening examinations in dentistry. 13. Ability to assess the impact of the environment on the health of the population (individual, family, population). 14. Ability to maintain regulatory medical records. 15. Processing of state, social and medical information. 16. Ability to organize and conduct rehabilitation measures and care for patients with diseases of the oral cavity and MFA. 17. Ability to legally support their own professional activities. 18. Ability to provide home care according to the protocols of tactical medicine.

Matrix of compliance of program competencies with the components of the educational program OK 38

OK 38 Emergency and urgent therapeutic care	MC1	MC2	MC3	MC4	MC5	MC6	MC7	MC8	MC9	MC10	MC11	MC12	MC13	MC14	MC15
Knowledge	K2	K2	K2				K2	K2	K2	K2	K2		K2		
Skills	S1	S 1	S1				S1	S1	S1	S1	S1		S1		
Communication			C1				C1	C1	C1		C1		C1		
Autonomy and responsibility	A1	A1	A1					A1	A1	A1	A1		A1		

(Emergency and emergency therapeutic care) Mandatory components

OK 38 Emergency and urgent therapeutic care	FC1	FC2	FC3	FC4	FC5	FC6	FC7	FC8	FC9	FC10	FC11	FC12	FC13	FC14	FC15	FC16	FC17	FC18
Knowledge	K2	K2	K2					K2		K2	K2				K2			
Skills	S1	S1	S1					S1		S1	S1				S1			
Communication	C1		C1							C1	C1							
Autonomy and responsibility	A1	A1	A1					A1		A1	A1							

Detailing of competencies according to descriptors in the form of "Matrix of competencies".

1.3.2. The study of the discipline provides students with the acquisition of the following program learning outcomes:

Program learning outcomes

Knowledge and understanding:

1. Select and identify the leading clinical symptoms and syndromes (according to list 1); 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 probable nosological or syndromic preliminary clinical diagnosis of a dental disease (according to list 2).
2. Collect information about the general condition of the patient, assess the psychomotor and physical development of the patient, the condition of the maxillofacial area, based on the results of laboratory and instrumental studies to assess information about the diagnosis (list 5).
3. Assign and analyze additional (mandatory and optional) methods of examination (laboratory, radiological, functional and / or instrumental) according to list 5, patients with diseases of organs and tissues of the oral cavity and maxillofacial region for differential diagnosis of diseases (for list 2).
4. Determine the final clinical diagnosis in accordance with the relevant ethical and legal norms, by making an informed decision and logical analysis of the obtained subjective and objective data of clinical, additional examination, differential diagnosis under the supervision of a doctor in a medical institution (according to list 2.1).
5. To diagnose emergencies under any circumstances (at home, on the street, in a medical institution), in an emergency, martial law, lack of information and limited time (according to list 4).
6. Plan and implement measures to prevent dental diseases among the population to prevent the spread of dental diseases.
7. Analyze the epidemiological situation and carry out measures of mass and individual, general and local drug and non-drug prevention of dental diseases.
8. To determine the approach, plan, type and principle of treatment of dental disease (according to list 2) by making an informed decision according to existing algorithms and standard schemes.

9. To determine the nature of work, rest and the necessary diet in the treatment of dental diseases (according to list 2) on the basis of preliminary or final clinical diagnosis by making an informed decision according to existing algorithms and standard schemes.
10. To determine the tactics of managing a dental patient with somatic pathology (according to list 3) by making an informed decision according to existing algorithms and standard schemes.
11. Carry out treatment of major dental diseases according to existing algorithms and standard schemes under the supervision of a doctor-manager in a medical institution (according to list 2.1).
12. To organize carrying out of medical and evacuation actions among the population, military men, in the conditions of an emergency situation, including martial law, during the detailed stages of medical evacuation, taking into account the existing system of medical and evacuation support.
13. Determine the tactics of emergency medical care, using the recommended algorithms, under any circumstances on the basis of a diagnosis of emergency in a limited time (according to list 4).
14. Analyze and evaluate state, social and medical information using standard approaches and computer information technologies.
15. Assess the impact of the environment on the health of the population in a medical institution by standard methods.
16. Form goals and determine the structure of personal activities based on the results of the analysis of certain social and personal needs.
17. Adhere to a healthy lifestyle, use the techniques of self-regulation and self-control.
18. To be aware of and guided in their activities by civil rights, freedoms and responsibilities, to raise the general cultural level.
19. Adhere to the requirements of ethics, bioethics and deontology in their professional activities.
20. To organize the necessary level of individual safety (own and persons cared for) in case of typical dangerous situations in the individual field of activity.
21. Perform medical manipulations on the basis of preliminary and / or final clinical diagnosis (according to lists 2, 2.1) for different segments of the population and in different conditions (according to list 6).
22. Perform medical dental manipulations on the basis of preliminary and / or final clinical diagnosis (according to lists 2, 2.1) for different segments of the population and in different conditions (according to list 7).
23. Manipulate the provision of emergency medical care, using standard schemes, under any circumstances on the basis of a diagnosis of emergency (according to list 4) for a limited time (according to lists 6, 7).

The matrix of providing program learning outcomes (PLO) with the relevant components of the educational program

	PLO 1	PLO 2	PLO 3	PLO 4	PLO 5	PLO 6	PLO 7	PLO 8	PLO 9	PLO 10	PLO 11	PLO 12	PLO 13	PLO 14	PLO 15	PLO 16	PLO 17	PLO 18	PLO 19	PLO 20	PLO 21	PLO 22	PLO 23
Required components																							
OK 38 Emergency and urgent therapeutic care	+	+	+		+								+					+	+	+	+		+

1.3.3. The study of the discipline provides students with the following social skills (Softskills):

- communication skills;
- situational awareness;
- adaptability;
- be diplomatic and tactful.

2. INFORMATION SCOPE OF THE COURSE

Name of indicators	Field of knowledge, direction of training, educational and qualification level	Characteristics of the discipline
		full-time education
Number of credits - 3	Field of knowledge 22 "Health"	Normative
The total number of hours - 90	Specialty: 221 "Dentistry"	Year of training:
		5 th
		Semester
		9-10
Hours for day (or evening) form of study: classroom lessons - 30 individual work of the student - 60	Education level: The second (master's) level	Lectures
		10 h.
		Practical
		20 h
		Laboratory
		0 h
		Individual work
		60 h
Individual tasks:		
Type of control: differentiated credit		

2.1 The content of the discipline

2.2.1 Lectures

№	Topics	Hours	Types of lectures
1	Organization of emergency and urgent medical care in Ukraine. Initial actions of medical workers in case of emergency of the patient.	2	On-line
2	Circulatory and respiratory arrest. Technology of providing emergency medical care to adults	2	On-line
3	The procedure for providing emergency medical care to victims and patients at the pre-hospital stage. Secondary examination. Emergency medical care for mechanical injuries.	2	On-line
4	Circulatory and respiratory arrest. Technology of providing emergency medical care to adults	2	On-line
5	Diagnosis and treatment of emergencies at the scene.	2	On-line
Total hours of lecture classes		10	

2.2.2 Seminars

№	Topics	Hours	Methods teaching	Forms control
	Total hours	0		

2.2.3 Practical classes

№	Topics	Hours	Methods teaching	Forms control
1	Organization of emergency and urgent medical care in Ukraine. Initial actions of medical workers in case of emergency of the patient The order of rendering of emergency	5	story-explanation, presentation, videos, videos, discussion,	Current control: oral examination (individual and frontal); written

	medical care to victims and patients at a prehospital stage. Initial examination. Modern means of ensuring airway patency and artificial lung ventilation in adults.		business, role-playing, simulation game, modeling of processes and situations, project method, use of high-level mannequins	survey; test control
2	The procedure for providing emergency medical care to victims and patients at the pre-hospital stage. Secondary examination. Diagnosis and treatment of emergencies at the scene	5		
3	Circulatory and respiratory arrest. Technology of providing emergency medical care to adults Emergency medical care for mass injuries. 1 h	5		
4	Emergency medical care for mechanical injuries. Emergency medical care for mass injuries. Differentiated credit.	3		
	Final control	2		Differentiated credit.
	Total hours	20		

2.2.4. Laboratory classes

N ^o	Topics	Hours	Methods teaching	Forms control
	Total hours	0		

2.2.5. Individual work

N ^o	Topics	Hours	Methods teaching	Forms control
1	Initial actions of medical workers in case of emergency of the patient.	8	project method, demonstration, presentation	Current control: self-control; report; declamation; abstracts; creative tasks
2	Modern means of ensuring airway patency and artificial lung ventilation in adults	4		
3	The procedure for providing emergency medical care to victims and patients at the pre-hospital stage. Initial examination.	10		
4	The procedure for providing emergency medical care to victims and patients at the pre-hospital stage. Secondary examination	6		
5	Circulatory and respiratory arrest. Technology of providing emergency medical care to adults	12		
6	Diagnosis and treatment of emergencies at the scene	12		
7	Emergency medical care for mechanical injuries.	6		
8	Emergency medical care for mass injuries	2		
	Total hours	60		

3. EVALUATION POLICY

3.1. Evaluation of the success of education of students is carried out on the basis of the current "Instructions for evaluating the educational activities of students of KhNMU"

Based on the results of mastering each practical lesson, a grade is given using a 4-point system. The average score is calculated, which is translated into points on a scale:

Table 1

Recalculation of the average score for current activities in a multi-point scale

4-point scale	120-point scale	4-point scale	120-point scale
5	120	3.91-3.94	94
4.95-4.99	119	3.87-3.9	93
4.91-4.94	118	3.83- 3.86	92
4.87-4.9	117	3.79- 3.82	91
4.83-4.86	116	3.74-3.78	90
4.79-4.82	115	3.7- 3.73	89
4.75-4.78	114	3.66- 3.69	88
4.7-4.74	113	3.62- 3.65	87
4.66-4.69	112	3.58-3.61	86
4.62-4.65	111	3.54- 3.57	85
4.58-4.61	110	3.49- 3.53	84
4.54-4.57	109	3.45-3.48	83
4.5-4.53	108	3.41-3.44	82
4.45-4.49	107	3.37-3.4	81
4.41-4.44	106	3.33- 3.36	80
4.37-4.4	105	3.29-3.32	79
4.33-4.36	104	3.25-3.28	78
4.29-4.32	103	3.21-3.24	77
4.25- 4.28	102	3.18-3.2	76
4.2- 4.24	101	3.15- 3.17	75
4.16- 4.19	100	3.13- 3.14	74
4.12- 4.15	99	3.1- 3.12	73
4.08- 4.11	98	3.07- 3.09	72
4.04- 4.07	97	3.04-3.06	71
3.99-4.03	96	3 . 0 -3.03	70
3.95- 3.98	95	Lessthan 3	Notenough

Current control is carried out at each practical lesson in accordance with the specific objectives of the topic. It is recommended to use types of objective (standardized) control of theoretical and practical training of students.

The maximum grade is 5.

Assessment of current learning activities is carried out in the classroom using standard methods of control; when mastering each topic for the current educational activities of the student, grades are set on a four-point traditional scale, which are then converted into points.

Conducting a differentiated test: Applicants who have a test in the 4th year of "Military Surgery", do not have passes for practices and lectures, certified in each class. The applicant receives tasks from the discipline, which cover the content of the whole subject in accordance with the program of the discipline in the MOODLE system and or a written test on 5 questions. Evaluation criterion from 50 to 80 points.

The final lesson (*hereinafter - the FL*) must be conducted in accordance with the working curriculum of the discipline (*hereinafter - WCD*) during the semester on schedule, during classes.

Acceptance of **FL** is carried out by the teacher of the academic group or the exchange of related groups between teachers.

The department must provide the following materials for preparation for the software on the information stand:

- basic and anchor test tasks "Step";
- list of theoretical questions (including questions on independent work);
- list of practical skills;
- a list of drugs, prescriptions of which must be prescribed by the student;
- list of medical records;
- criteria for assessing the knowledge and skills of students;
- schedule of students completing missed classes during the semester.

Recommendations for the final lesson:

1. Solving a package of test tasks on the content of educational material, which includes the following:
 - basic test tasks in the discipline, which cover the content of the study material of the final lesson in the amount of at least 30 tests (for disciplines that are part of "Step" - open database of test tasks "Step". Evaluation criterion - 90, 5% of correctly solved tasks; "passed" or "failed");
2. Assessment of the development of practical skills (assessment criteria - "performed" or "failed");
3. During the assessment of the student's knowledge on theoretical issues included in this final lesson (FL), the student is given a traditional grade, which is converted into a multi-point scale together with the grades (Table 1).
4. Tasks for practical and professional training that reflect the skills and abilities during the supervision of thematic patients, evaluation of laboratory and instrumental research methods and the choice of treatment tactics, which are defined in the lists of working curricula and specialties.
5. Tasks for diagnosis and care in emergencies.

Assessment of theoretical knowledge and practical skills, if they are presented in one ticket

№	«5»	«4»	«3»	Answer for tickets, which include theoretical and practical parts of the discipline	For each answer the student receives from 10 to 16 points, which corresponds to: «5» - 16 points; «4» - 13 points; «3» - 10 points
1	16	13	10		
2	16	13	10		
3	16	13	10		
4	16	13	10		
5	16	13	10		
	80	65	50		

The grade in the discipline consists of points that correspond to the average grade for the entire period of study of the discipline and the assessment of differentiated credit.

OD (from 120 to 200) = Wed score for two semesters, converted in the table (from 70 to 120) + grade from the differential test (50-80)

Correspondence of scores on the 200-point scale, four-point (national) scale and the ECTS scale

Rating on a 200-point scale	Rating on a ECTS	Score for four-point (national) scale
180–200	A	Відмінно
160–179	B	Добре
150–159	C	Добре
130–149	D	Задовільно
120–129	E	Задовільно
Less than 120	F, Fx	Незадовільно

3.2. Test questions:

1. Initial examination
2. Secondary inspection.
3. The concept of terminal states. Diagnosis of clinical death. Absolute and relative signs of biological death.
4. Pharmacotherapy for cardiac arrest.
5. Technology of cardiopulmonary resuscitation in the presence of an automatic defibrillator.
6. Duration of cardiopulmonary resuscitation, signs that indicate its effectiveness and termination.
7. Post-resuscitation support.
8. Errors and complications that occur during cardiopulmonary resuscitation.
9. Legal and ethical aspects of cardiopulmonary resuscitation ..
10. Diagnosis and emergency medical care for acute coronary syndrome.
11. Diagnosis and emergency medical care for cardiogenic shock.
12. Diagnosis and emergency medical care in hypertensive crisis.
13. Diagnosis and emergency medical treatment for anaphylactic shock.
14. Diagnosis and emergency medical care for hypothermia.
15. Diagnosis and emergency medical care in case of drowning.
16. Diagnosis and emergency medical care in case of electric shock.
17. Diagnosis and emergency medical care for coma of unknown etiology.
18. Diagnosis and emergency medical care for coma associated with diabetes.

19. Diagnosis and emergency medical care in case of unknown gas poisoning.
20. Diagnosis and emergency medical care in case of poisoning by an unknown substance.
21. Diagnosis and emergency medical care for mechanical injuries of the skull.
22. Diagnosis and emergency medical care for mechanical spinal injuries.
23. Diagnosis and emergency medical care for mechanical injuries of the chest.
24. Diagnosis and emergency medical care for mechanical injuries of the abdominal cavity, pelvis and pelvic organs.
25. Diagnosis and emergency medical care for mechanical injuries of the extremities.
26. Diagnosis and emergency medical care for polytrauma.
27. Diagnosis and emergency medical care for long-term compression and crushing syndrome.
28. Diagnosis and emergency medical care for external and internal bleeding.
29. Diagnosis and emergency medical care for traumatic shock.
30. Diagnosis and emergency medical care for hemorrhagic shock.
31. Diagnosis and emergency medical care for hemo- and pneumothorax.
32. Algorithm of actions of the emergency medical care team in case of a traffic accident.
33. General principles of detoxification therapy at the prehospital stage. Antidote therapy.
34. Procedure of emergency medical care brigades in a safe center of mass destruction.
35. Primary medical sorting according to the START system.
36. Rules for the use of sorting bracelets and coupons.
37. The concept of crews of constant readiness of the first turn. Specialized brigades of constant readiness of the second turn, mobile field brigades, their formation and tasks.
38. The role of emergency departments of multidisciplinary hospitals in optimizing the provision of medical care for mass injuries.

3.3. control questions

1. Organization of the emergency medical care service of Ukraine (regulatory framework).
2. Organizational structure, main tasks and functions of the center of emergency medical care and disaster medicine.
3. The main tasks, functions, rights and responsibilities of the emergency (ambulance) team.
4. Table of equipment and personal safety equipment of the emergency (ambulance) team.
5. Organizational structure, main tasks, functions and equipment of the department of emergency (urgent) medical care of a multidisciplinary hospital.
6. Purpose, ethical, deontological and legal aspects of emergency medical care for victims at the pre-hospital stage.
7. Inspection of the scene, ensuring the personal safety of medical staff, safety of witnesses and the victim, approaching the victim (patient).
8. Ergonomic principles in the work of the field emergency team (when working indoors, outdoors), teamwork.
9. Initial examination (DRABCDE). Tasks of the initial inspection. Technology of carrying out at the conscious and unconscious patient.
10. Provision of medical care during the initial examination. Determining further tactics at the scene.
11. Tasks of secondary inspection. Indications for a secondary inspection at the scene and on the way to evacuation. Technology of secondary examination of the victim (patient).
12. Pathogenesis, clinic, diagnosis and treatment of airway obstruction in patients of different ages.
13. Ensuring airway patency by tilting the head back or removing the lower jaw (forward). Triple maneuver by Safar.
14. Ensuring airway patency in trauma of the cervical spine.
15. Revision and cleaning of the oral cavity by manual and hardware methods.
16. The use of oropharyngeal and nasopharyngeal tube.
17. Ventilation of the victim's lungs through a mask using a hand-held device for artificial lung ventilation (Ambu), oxygen supply.
18. Indications and technique of intubation of the victim.
19. The use of alternative methods to ensure airway patency with a laryngeal mask, laryngeal tube, combi tube.
20. Symptoms of partial and complete airway obstruction when a foreign body, methods of its recovery. Heimlich's maneuver.

21. Indications and technique of conic puncture and conicotomy.
22. The concept of terminal states. Diagnosis of clinical death. Absolute and relative signs of biological death.
23. Causes of inefficient blood circulation. Diagnosis of sudden death.
24. Classification and assessment of heart rate in cardiac arrest.
25. Technology of cardiopulmonary resuscitation in ventricular fibrillation in adults.
26. Technology of cardiopulmonary resuscitation in ventricular tachycardia in adults.
27. Technology of cardiopulmonary resuscitation with pulseless electrical activity in adults.
28. Technology of cardiopulmonary resuscitation in asystole in adults.
29. Diagnosis of causes of cardiac arrest, which can be eliminated during resuscitation - four "H" : hypoxia, hypovolemia, hyper / hypokalemia, hypomagnesemia, acidosis, hypothermia; four " T " : tension pneumothorax, cardiac tamponade, thromboembolism, toxic overdose.
30. Pharmacotherapy for cardiac arrest.
31. Technology of cardiopulmonary resuscitation in the presence of an automatic defibrillator.
32. Duration of cardiopulmonary resuscitation, signs that indicate its effectiveness and termination.
33. Post-resuscitation support.
34. Errors and complications that occur during cardiopulmonary resuscitation.
35. Legal and ethical aspects of cardiopulmonary resuscitation ..
36. Diagnosis and emergency medical care for acute coronary syndrome.
37. Diagnosis and emergency medical care for cardiogenic shock.
38. Diagnosis and emergency medical care in hypertensive crisis.
39. Diagnosis and emergency medical treatment for anaphylactic shock.
40. Diagnosis and emergency medical care for hypothermia.
41. Diagnosis and emergency medical care in case of drowning.
42. Diagnosis and emergency medical care in case of electric shock.
43. Diagnosis and emergency medical care for coma of unknown etiology.
44. Diagnosis and emergency medical care for coma associated with diabetes.
45. Diagnosis and emergency medical care in case of unknown gas poisoning.
46. Diagnosis and emergency medical care in case of poisoning by an unknown substance.
47. Diagnosis and emergency medical care for mechanical injuries of the skull.
48. Diagnosis and emergency medical care for mechanical spinal injuries.
49. Diagnosis and emergency medical care for mechanical injuries of the chest.
50. Diagnosis and emergency medical care for mechanical injuries of the abdominal cavity, pelvis and pelvic organs.
51. Diagnosis and emergency medical care for mechanical injuries of the extremities.
52. Diagnosis and emergency medical care for polytrauma.
53. Diagnosis and emergency medical care for long-term compression and crushing syndrome.
54. Diagnosis and emergency medical care for external and internal bleeding.
55. Diagnosis and emergency medical care for traumatic shock.
56. Diagnosis and emergency medical care for hemorrhagic shock.
57. Diagnosis and emergency medical care for hemo- and pneumothorax.
58. Algorithm of actions of the emergency medical care team in case of a traffic accident.
59. General principles of detoxification therapy at the prehospital stage. Antidote therapy.
60. Procedure of emergency medical care brigades in a safe center of mass destruction.
61. Primary medical sorting according to the START system.
62. Rules for the use of sorting bracelets and coupons.
63. The concept of crews of constant readiness of the first turn. Specialized brigades of constant readiness of the second turn, mobile field brigades, their formation and tasks.
64. The role of emergency departments of multidisciplinary hospitals in optimizing the provision of medical care for mass injuries.

3.4. Individual tasks (the list approved at the meeting of the department with the determination of the number of points for their performance, which can be added as incentives):

1. The main tasks, functions, rights and responsibilities of the emergency (ambulance) team.

- 2 . Table of equipment and personal safety equipment of the emergency (ambulance) team.
- 3 . Organizational structure, main tasks, functions and equipment of the department of emergency (urgent) medical care of a multidisciplinary hospital.
- 4 . Providing medical care during the initial examination. Determining further tactics at the scene.
- 5 . Tasks of secondary inspection. Indications for a secondary inspection at the scene and on the way to evacuation. Technology of secondary (ABCDE) examination of the victim (patient).
- 6 . Pathogenesis, clinic, diagnosis and treatment of airway obstruction in patients of different ages.
- 7 Indications and technique of intubation of the victim.
- 8 Application of alternative methods to ensure airway patency with a laryngeal mask, laryngeal tube, Combitube.
9. Pharmacotherapy for cardiac arrest.
10. Technology of cardiopulmonary resuscitation in the presence of an automatic defibrillator.
11. Post-resuscitation support.
12. Errors and complications that occur during cardiopulmonary resuscitation.
13. Legal and ethical aspects of cardiopulmonary resuscitation.
14. General principles of detoxification therapy at the prehospital stage. Antidote therapy.
15. Procedure of emergency medical care brigades in a safe center of mass destruction.
- 16 The concept of crews of constant readiness of the first turn. Specialized brigades of constant readiness of the second turn, mobile field brigades, their formation and tasks.

3.5. Rules for appealing the assessment

Rules for appealing the assessment: if the student does not agree with the assessment, he or she may reschedule the discipline of the commission. If a student is unable to answer the commission's questions, his or her grade may be reduced.

Discipline policy and values.

In order to successfully complete the relevant course, it is necessary to regularly attend practical classes; to have theoretical preparation for practical classes according to the subject; not to be late and not to miss classes; perform all necessary tasks and work in each lesson; be able to work with a partner or in a group; contact the curators of the course on various issues on the subject of classes and receive it when you need it.

Students can discuss different tasks, but their performance is strictly individual. You are not allowed to write off, use various software, tips, use a mobile phone, tablet or other electronic gadgets during classes for purposes other than the educational process. Students are not allowed to be late for practical classes.

Visiting patients during curation is possible if students have appropriate clothing, a health book with a diphtheria vaccination note, the results of a measles immunity test (or a vaccination mark), or other infectious diseases according to the current epidemic situation.

Students with special needs can meet with the teacher or warn him before the start of classes, at the request of the student it can be done by the head of the group. If you have any questions, please contact the teacher.

Students are encouraged to participate in research and conferences on this topic. The student can earn additional points for participation in writing abstracts or preparing an abstract and its defense in class (2 points), active participation in the discussion of topics (1 point per topic). In total, no more than 10 points per discipline.

All students of KNMU are protected by the Regulations on Prevention, Prevention and Settlement of Cases Related to Sexual Harassment and Discrimination at Kharkiv National Medical University, designed to determine an effective mechanism for resolving conflict situations related to discrimination and sexual harassment. on the basis of the following normative legal acts of Ukraine: the Constitution of Ukraine; Law of Ukraine "On Education"; Law of Ukraine "On Higher Education"; Law of Ukraine "On Principles of Prevention and Counteraction of Discrimination in Ukraine"; Law of Ukraine "On Ensuring Equal Rights and Opportunities for Women and Men"; Convention for the Protection of Human Rights and Fundamental Freedoms; Convention for the Suppression of Discrimination in Education; Convention on the Elimination of All Forms of Discrimination against Women; General Recommendation № 25 to Article 4, paragraph 1, of the Convention on the Elimination of All Forms of Discrimination against Women, General Comment № 16 (2005) "Equal rights for men and women to enjoy economic, social and cultural rights" (Article 3 of the International Covenant on Economic, Social and Cultural Rights) Cultural Rights; UN Committee on Economic, Social and Cultural Rights); Recommendations on Education for International Understanding,

Cooperation and Peace and Education for Human Rights and Fundamental Freedoms (UNESCO); Concept of the State Social Program for Equal Rights and Opportunities for Women and men for the period up to 2021. Kharkiv National Medical University provides education and work that is free from discrimination, sexual harassment, intimidation or exploitation. The University recognizes the importance of confidentiality. All persons responsible for the implementation of this policy (staff of deans, faculties, institutes and the Center for Gender Education, members of the student government and ethics committee, vice-rector for research and teaching) are confidential about those who report or accuse of discrimination or sexual harassment (except where the law requires disclosure of information and / or when disclosure by the University is necessary to protect the safety of others).

KNMU creates a space of equal opportunities free from discrimination of any national, racial or ethnic origin, sex, age, disability, religion, sexual orientation, gender, or marital status. All rights, privileges, programs and activities granted to students or staff of the University apply to all without exception, provided they are properly qualified. The anti-discrimination policy and the policy of counteracting sexual harassment of KNMU are confirmed by the Code of Corporate Ethics and the Charter of KNMU.

Safety precautions. Classes under quarantine will be conducted remotely. Elimination of academic debts allowed with the permission of the university administration in compliance with the mask regime, social distance, the presence of gloves.

5. ACADEMIC INTEGRITY

The Department of Emergency and Urgent Health care, Orthopedics and Traumatology maintains zero tolerance for plagiarism. Students are expected to constantly raise their awareness of academic writing. The first lessons will provide information on what to consider plagiarism and how to properly conduct research and scientific research.

Individual tasks

If necessary, improve the assessment by preparing a report and abstracts on the topic of the lesson. The list of individual tasks (participation with reports in student conferences, profile Olympiads, preparation of analytical reviews with presentations with plagiarism testing) with the definition of the number of points for their performance, which can be added as incentives (not more than 10).

Points for individual tasks are awarded to the student only once as a commission (commission - head of the department, head teacher, group teacher) only if they are successfully completed and defended (not more than 10). In no case may the total amount of points exceed 120 points.

Elimination of academic debt (practice) in the presence of not more than 2 passes the student can work them to his or the next teacher. Lectures are practiced by the lecturer (at the time appointed by the lecturer in the form of defense of the abstract on the topic of the lecture). If the debt exceeds 2 classes, or the student did not have time to work before the end of the discipline, then an individual work schedule is developed, but not more than 1 topic per work.

6. Recommended books

1. Law of Ukraine of July 5, 2012 № 5081-VI "On Emergency Medical Care".
2. http://5ka.at.ua/load/medicina_ta_zdorov_39_ja/persha_domedichna_dopomoga_vumovakh_nadzvichajnik_h_situacijakh_pri_opikakh_obmorozhenni_udushenni_referat/37-1-0-20950
3. Emergency medicine: ambulance and emergency care / IS Zozulya, A.V. Vershigora, VI Bobrova and others; for order. IS Zozuli. – K.: VSV "Medicine", 2018. – 728 p.
4. Emergency medical care: pre-hospital stage – manipulation algorithms (basic level). – G.G. Roschin, AA Gudima, V.Yu. Kuzmin and others. – K., 2018 – 84 p.
5. Emergency and urgent medical care. Volume 1.-Help for the injured at the prehospital stage: a national textbook / V.O. Кирилюка, С.О. Guriev, GV Zagorodniy, AA Hudyma, N.I. Iskra and others. - Kyiv. - 2017. –504 p.
6. Наказ Міністерства охорони здоров'я України від 05.06.2019 № 1269 «Екстрена медична допомога: догоспітальний етап. Новий клінічний протокол»

7. INFORMATION RESOURCES

1. http://knowledge.allbest.ru/life/2c0a65625a3bc68b4c53a88421316d37_0.html;
2. http://5ka.at.ua/load/medicina_ta_zdorov_39_ja/persha_domedichna_dopomoga_

vumovakh_nadvichajnikh_situacijakh_pri_opikakh_obmorozhenni_udushenni_refer at/37-1-0-20950;

3. <http://www.moz.gov.ua>.

4. <http://distance.knmu.edu.ua>

8. OTHER

Topic 1. “Organization of emergency and urgent medical care in Ukraine. Initial actions of medical workers in case of emergency of the patient ”.

The concept of a single system of emergency medical care (EMC) in Ukraine. Responsibilities of healthcare professionals. Organization of the EMC service of Ukraine (structure and tasks). The main tasks, functions, rights and responsibilities of medical staff (doctors of the EMC service) in providing medical care to the patient (victim) in an emergency. Ethical, deontological and communicative aspects of EMC.

Features of emergency medical care at the pre-hospital stage (EMC team, general practitioners - family medicine, clinics), early hospital stage (EMC department of a multidisciplinary hospital). Equipment of the EMC field team (medical devices, medicines, special equipment). Departure map of the EMC team, the rules of its design. Ergonomic principles in the work of the field team EMC (when working indoors, outdoors), teamwork.

Acquaintance with EMC station. Safety instruction. Personal safety of an EMC (medical worker) crew member during emergency medical care (organizational measures, technical means of personal safety). Overview of the scene. Dangerous situations that are possible at the scene, tactics of medical workers and priorities in case of danger. Determining the number of victims and the need for additional assistance. Determining the mechanism of damage to the victim. EMC crew call, EMC car arrival dates.

Topic 2. Modern means of ensuring airway patency and artificial lung ventilation in adults.

Causes, diagnosis and treatment of airway obstruction in adults. Ensuring airway patency by throwing the head back while maintaining the jaw, taking Safar. Ensuring airway patency in trauma of the cervical spine (removal of the lower jaw forward). Revision and rehabilitation of the oral cavity by manual and hardware methods. Use of the oropharyngeal tube, ventilation of the victim's lungs through a mask using a hand-held device for artificial lung ventilation (Ambu), oxygen supply. Use of the nasopharyngeal (nasopharyngeal) tube.

Indications and technique of intubation of the victim. The use of alternative methods to ensure airway patency with a laryngeal mask, laryngeal tube, combi tube. Symptoms of partial and complete airway obstruction when a foreign body enters, methods of its recovery. Heimlich's reception. Indications and technique of conic puncture and conicotomy. Familiarity with a portable ventilator.

Topic 3. The procedure for providing emergency medical care to victims and patients at the pre-hospital stage. Initial examination.

Primary examination (ABC). Tasks of the initial examination. Technology of the conscious and unconscious patient (stabilization of the head and neck, ensuring patency of the upper respiratory tract, determining the level of consciousness on the AVPU scale, assessment of quality and frequency of respiration, the presence of central and peripheral pulse, its frequency, body temperature, skin color and moisture, capillary filling, control of profuse bleeding). Decision-making on the provision of medical care during the initial examination: application of the neck collar, oxygen supply, elimination of life-threatening conditions (elimination of obstructive mechanical asphyxia, cessation of external bleeding, CPR).

Determining further tactics at the scene for the category of patients "Download and ride"; those that require a quick head-to-toe examination and those that require a local examination. Criteria for determining the category of patients "Download and ride". The concept of "platinum" half an hour and "golden" hour. The role of the mechanism of lesion in determining the severity of the patient. Communication of the team with the main base, report on the clinical situation. Assistance and preparation for transportation of the patient of the category "Load and eat" Features of transportation of patients and victims (laying on a board, a stretcher, a stretcher-chair, imposing of a neck collar, an immobilization vest, putting in salon of the EMC carriage).

Technique of removing the victim from the vehicle and its transfer. Means for pre-administration of drugs, indications and techniques. Intraosseous administration of drugs.

Topic 4. The procedure for providing emergency medical care to victims and patients at the pre-hospital stage. Secondary examination.

The purpose of the secondary examination. Patients to be examined quickly from head to toe at the scene. Examination technology (initial examination, assessment of consciousness on the Glasgow scale, examination, palpation of the head, assessment of pupils; examination, palpation of the neck; examination, palpation, percussion, chest auscultation; examination, palpation of the abdomen; determination of pelvic bone stability; examination, palpation lower and upper extremities, areas of the spine). Additional

examination methods (electrocardiogram, pulse oximetry, electrocardiography in 12 standard leads, glucometer).

Determining the presence of active and passive movements in the extremities, the strength of the muscles of the arms and legs of the patient in consciousness. Collection of medical history (complaints, allergies, medications, time of last meal, illness, obtaining data on immunizations against tetanus, alcohol consumption, finding out the circumstances of the lesion). Establishing an emergency. Determining the treatment protocol for emergency medicine. Criteria for determining patients subject to local examination. Local survey technology. Establishing a preliminary diagnosis in emergency medicine. Features of secondary examination on an outpatient basis.

Topic 5. Stopping blood circulation and respiration. Technology of providing emergency medical care to adults.

The concept of terminal states. Clinical death, its symptoms. Absolute and relative signs of biological death. Causes of inefficient blood circulation. Diagnosis of sudden death. Classification and assessment of heart rate in cardiac arrest. Cardiopulmonary resuscitation technology for ventricular fibrillation, ventricular tachycardia, pulseless electrical activity, asystole in adults according to the protocol of the European Council of Resuscitation in 2010.

Diagnosis of the causes of cardiac arrest, which can be eliminated during resuscitation - four G: hypoxia, hypovolemia, hyper / hypokalemia, hypomagnesemia, acidosis, hypothermia; four T: tension (tense) pneumothorax, cardiac tamponade, thromboembolism, toxic overdose. Technique of express ECG registration during resuscitation. Technique of defibrillation by manual defibrillator. Chest pressure technique. Pharmacotherapy for cardiac arrest. Technology of cardiopulmonary resuscitation in the presence of an automatic defibrillator.

Duration of cardiopulmonary resuscitation, signs that indicate its effectiveness and the possibility of termination. Post-resuscitation support. Errors and complications that occur during cardiopulmonary resuscitation.

Topic 6. Diagnosis and treatment of emergencies at the scene

Diagnosis and treatment at the prehospital stage of acute coronary syndrome, cardiogenic shock, hypertensive crisis, anaphylactic shock, laryngeal edema, Quincke's edema, hypothermia, drowning, electric shock, coma of unknown etiology, coma in diabetes mellitus, poisoning, poisoning and poisoning approved protocols for emergency medicine.

Topic 7. Emergency medical care for mechanical injuries

Diagnosis and treatment at the prehospital stage of mechanical injuries of the skull, spine, chest, abdominal organs, pelvis and pelvic organs, limbs. Diagnosis and tactics of the visiting team with polytrauma, long-term compression and crushing syndrome, external and internal bleeding, traumatic and hemorrhagic shock, hemo- and pneumothorax.

Algorithm for providing emergency medical care to victims of road accidents. Techniques to stop external bleeding. Technique of transport immobilization of different bone segments at the prehospital stage. Chest puncture in severe pneumothorax. Occlusive dressing.

Topic 8. Emergency medical care for mass injuries

The order of actions of ambulance crews in the center of mass destruction. Interaction with rescue services, the responsibility of each of them. Organization of a medical sorting zone, a medical care zone (medical point) and a transport zone (evacuation). Primary medical sorting according to the START system. Rules for using sorting bracelets and coupons.