

MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
NATIONAL TECHNICAL UNIVERSITY
"KHARKIV POLYTECHNIC INSTITUTE"

**METHODICAL INSTRUCTIONS
FOR INDEPENDENT WORK
ON THE DISCIPLINE "FIRST EMERGENCY PREMEDICAL AID
IN EMERGENCY SITUATIONS"**
for students of specialty 263 - Civil Security

Kharkiv 2024

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Methodical instructions for independent work on the discipline "First emergency premedical aid in emergency situations" for students of specialty 263 - Civil Security / comp. N.Ye. Tverdokhliebova - Kh .: NTU "KhPI", 2024. – 12 p.

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INTRODUCTION

An increase in the number of technogenic, natural, social and military emergencies has become a characteristic feature of recent decades. The injuries sustained in accidents and disasters are characterized by a significant number of multiple and combined injuries and combined lesions. At the same time, the mortality rate from accidents in Ukraine remains high in modern conditions. It becomes clear that pre-medical care for victims is of paramount importance and that rescuers and other persons at the scene of an emergency are responsible for it.

The purpose of studying the discipline:

- learning the general principles and methods of protection, organization and planning of medical care of the population in emergency situations in peacetime and wartime;

- learning the basic theoretical provisions of first aid, which will provide students as future occupational health and safety specialists with the ability to provide first aid to victims in emergency situations;

- mastering the techniques and practical skills of providing emergency assistance to injured persons at the place of the incident and during transportation to a medical institution, depending on the circumstances, taking into account personal safety.

The main tasks of individual work of students are the preparation and completion of the current curriculum and work plan, as well as independent study of individual sections of the discipline under the guidance of a teacher. In addition, this methodological development provides students enrolled in individual

programs with the opportunity to complete educational tasks according to an individual educational program in the discipline "First Emergency Premedical Aid in Emergency Situations", which corresponds to the final specific results of individual training.

The methodical instructions contain questions for individual work that complement the scope of knowledge in this discipline, and a list of recommended literature.

1. GENERAL INFORMATION

The increase in the number of technogenic, natural, social and military emergencies has become characteristic of recent decades. The death rate from accidents in Ukraine is still high. This figure depends on the timely provision of pre-medical care in the right amount and in a timely manner, on the degree of modern equipment, the level of training of specialists and on the timely arrival of the ambulance.

First premedical aid - urgent actions and organizational measures aimed at saving and preserving the life of a person in an emergency and minimizing the consequences of the impact of such a condition on his health, carried out at the scene by persons who do not have medical education, but in their official duties must have basic practical skills to save and preserve the life of a person in an emergency, and in accordance with the law, are obliged to carry out such actions and measures.

The main tasks related to the emergency medicine service include:

- timely provision of emergency medical care, evacuation and treatment of the injured;
- restoring the health of the injured, minimizing the number of irreparable, irretrievable losses in the emergency area;
- ensuring sanitary well-being in the emergency area, preventing the emergence and spread of mass infectious diseases;

- preservation of life and health of the personnel of the formations during the liquidation of medical consequences of the emergency.

Depending on the stage of premedical aid, the forces and means involved, the following are classified:

1. First premedical aid. Provides a set of the simplest medical measures that are carried out in the order of self-help, mutual assistance and participants of emergency rescue operations directly in the center of the emergency with the help of improvised and personal means.

2. Premedical aid. Provides a set of medical measures that prevent the development and eliminate life-threatening disorders and prepare the victim for further evacuation (performed by nurses in the emergency area with the help of personal equipment).

Premedical care is a complex of medical manipulations performed by medical personnel (nurse, paramedic) with the use of personal medical equipment. It is aimed at saving the lives of victims and preventing the development of possible complications. The optimal terms of emergency medical care after an injury are the first 30 minutes, in case of respiratory arrest - 5-7 minutes, in case of poisoning - up to 10 minutes.

3. First medical aid. Provides for a set of medical and preventive measures aimed at eliminating the consequences of injuries that directly threaten the life of the victim, as well as preventing the development of possible complications and preparing the victim for further evacuation (performed by doctors in the emergency area or during evacuation).

4. Qualified medical care. Provides a set of treatment and preventive measures performed by general practitioners (surgeons or therapists) in medical institutions.

5. Specialized medical care. Provides a set of comprehensive medical measures performed by doctors of a narrow profile (neurosurgeons, traumatologists, maxillofacial surgeons, etc.) in specialized medical institutions using special equipment.

2. ABSTRACT STRUCTURE

The course involves completing an individual assignment in the form of an essay. The list of essay topics is chosen by the student independently from the list of topics proposed by the teacher and is drawn up in electronic form.

The essay is performed on A4 sheets of Times New Roman font, size 14 pt, line spacing – 1,5. Margins: left - 30 mm, right - 15 mm, top, bottom - 20 mm. Text alignment - by width.

The structure of the essay contains the following elements:

- title page,
- plan,
- introduction,
- main part (sections, paragraphs and subparagraphs),
- conclusions,
- list of references.

The total amount of work is 15-20 pages.

The abstract should be checked for anti-plagiarism. Uniqueness should be at least 80%.

3. LIST OF TASKS FOR INDIVIDUAL STUDY OF THEORETICAL MATERIAL

1. Regulatory documents governing the provision of premedical and first aid to victims of emergencies.

2. World experience in organizing medical protection of the population in emergencies.

3. Factors that impede the timely provision of all types of premedical and medical care to victims of disasters.

4. Individual dressing package (IDP). Rules of use.

5. First aid for pulmonary bleeding, gastrointestinal bleeding.

6. Compression. Traumatic shock. First aid.
7. Foreign bodies in the airways. First aid.
8. Thermal burn. Features of clinical signs and diagnosis of burn shock.
9. The effect of high and low temperatures in the workplace on the body of workers. First aid.
10. First aid in case of epileptic seizure.
11. Intoxication with metals and chemicals in industry. First aid.
12. Effect of ionizing radiation on the human body. Self- and mutual aid in case of an accident at a nuclear power plant.
13. Providing emergency first aid to victims of natural disasters (hydrological emergency).
14. Organization of circulation of narcotic and psychotropic substances. Pre-medical care in case of opioid overdose.
15. Procedure for transportation of victims from the danger zone to the areas of deployment of collection points.
16. Technical means of transportation of victims from the center of the emergency.
17. Diseases caused by exposure to biological factors in workers. Providing assistance to victims in epidemic areas.
18. Psychological assistance to victims of emergencies.
19. Sanitary and epidemiological reconnaissance. Regime-restrictive measures (quarantine, observation).
20. Basic systems of medical and evacuation support of the population in emergency situations.

4. INFORMATION AND METHODOLOGICAL SUPPORT

1. First emergency premedical aid in emergency situations [Electronic resource] : text of lectures for students of educational qualification level bachelor specialty 263 - Civil Security / comp. N. E. Tverdokhliebova - Electronic text data - Kharkiv: NTU "KhPI", 2024. 162 p. - URI: <https://repository.kpi.kharkov.ua/handle/KhPI-Press/72864>
2. Methodical instructions for the practical work "Determination of the main physiological indicators of a person" in the discipline "First emergency medical care in emergency situations" [Electronic resource] : for students majoring in 263 - Civil Security, direction of training 26 - Civil Security, educational program "Labor Protection" / comp. N. E. Tverdokhlebova - Electronic text data - Kharkiv: NTU "KhPI", 2024. - 20 p.
3. Methodical instructions for performing control work in the discipline "First emergency first aid in emergency situations" [Electronic resource] : for students majoring in specialty 263 - Civil Security, educational program "Labor Protection" of part-time study / comp. N. E. Tverdokhlebova ; National Technical University "Kharkiv Polytechnic Institute." - Electronic text data - Kharkiv, 2023. 17 p.
4. Pechiborsch VP, Volyansky PB, Yakimets VM, Voronenko VV, Khizhnyak MI Medical protection of the population in emergency situations in the unified state system of civil protection. Kyiv. 2019. - 425 c.
5. Khalmuradov BD Emergency medicine. Textbook. K.: Center of educational literature. 2016. - 208 c.
6. Premedical care at the scene: a practical guide / P. B. Volyansky, A. M. Grinzovsky, S. O. Guryev et al: Helvetica Publishing House, 2020. 224 p.
7. Premedical care (algorithms, manipulations): Methodical manual / V. Kryliuk, V. Kuzmin, I. Kuzminsky, et al. Kyiv, 2017. - 120 p.
8. Tsygankova T. I. Methodical recommendations for classes in the course "Emergency Medicine". Part 1: Fundamentals of pre-hospital diagnosis and

care. Kharkiv: NTU "KhPI" 2020. - 70 p.

9. Premedical care. Cardiopulmonary resuscitation (algorithms, manipulations): Methodical manual / VO Kryliuk, VY Kuzmin, IV Kuzminsky, et al. Kyiv, 2017. - 73 p.

10. Methodical recommendations for practical classes in the course "Pre-medical diagnostics and emergency medical care". Emergency premedical care in therapeutic conditions. Kharkiv - 2016.

11. Emergency conditions in the practice of therapist and family doctor: textbook / A. V. Yepishyn. - Ternopil, 2016. - 380 p.

12. Emergency conditions: textbook / M. S. Regeda. 2019. – 847 p.

13. Emergency and urgent medical care: textbook / O. Bodulev, 2017. 240 p.

14. Stebliuk V.V. Mental health disorders of servicemen in the conditions of use of the armed forces: prevention, primary diagnosis, premedical and first aid / manual for commanders, specialists of the moral and psychological support service, medical workers of the military link / V.V. Stebliuk, I.F. Goncharenko, A.V. Shvets et al. - K., 2017. - 52 p.

15. Emergency and urgent medical care: textbook. Vol. I. Assistance to the injured at the pre-hospital stage / V.O. Kryliuk. Kyiv, 2017. – 504 p.

16. Bakharieva G. Y. Civil protection: textbook for students of all forms of study of technical universities on the course "Civil Protection" / G.Y. Bakharieva, N.Ye. Tverdokhlebova, I.M. Lyubchenko, I.V. Gurenko, N.O. Bukatenko, O.Y. Pitak, O.V. Shestopalov, B.B. Kobylansky, O.P. Pushkova - Kh. http://repository.kpi.kharkov.ua/bitstream/KhPI-Press/24501/5/Bakharieva_Tsyvilnyi_zakhyst_2015.pdf

17. Regulations on medical examination of employees of certain categories. Approved by the order of the Ministry of Health of Ukraine from 21.05.07 № 246.

18. Emergency and Urgent Medical Care: student training manual / O.Budulev, 2019. - 200 p.

ADDITIONAL SOURCES

1. Emergency medicine. Emergency (ambulance) medical care: textbook / I.S. Zozulya - Kyiv: Medicine, 2017. - 960 p.
2. Physician's guide to emergency medicine: a guide / M. I. Shved [et al: Ukrmedkniga, 2019. - 528 p.
3. Emergency and urgent medical care. In VI volumes. Vol. IV. Clinical routes (protocols) of the patient during the provision of emergency medical care at the pre-hospital stage: textbook for students of higher educational institutions / Kryliuk V.O. - 300 p.
4. Modern classifications and standards of treatment of diseases of internal organs. Emergency conditions in therapy. Analyzes: normative indicators, interpretation of changes: a reference manual / Vinnytsia National Medical University named after M.I. Pirogov - Kyiv, 2019. 792 p.

INFORMATION RESOURCES ON THE INTERNET

1. Order of the Ministry of Internal Affairs No. 831 of 18.08.2014 "On Approval of the Procedure for Organization of Medical Support in the System of the State Emergency Service of Ukraine": [Electronic resource] - Access mode: <https://zakon.rada.gov.ua/laws/show/z1095-14#Text>
2. Code of Civil Protection of Ukraine of the Verkhovna Rada of Ukraine No. 5403-VI of 02.10.2012: [Electronic resource] - Access mode: <https://zakon.rada.gov.ua/laws/show/5403-17#Text>
3. Order of the Ministry of Health of Ukraine No. 1349 "On Approval of the Regulation on the Medical Specialized Civil Protection Service": [Electronic resource] - Access mode: <https://zakon.rada.gov.ua/laws/show/z0758-19#Text>
4. Ukrainian Medical Journal - Access mode: <http://www.umj.com.ua/article/speciality/pediatriciya>

Educational edition

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