

THEMATIC PLAN

for lectures and practical classes on **Medicine of Extreme Situations**
for **3rd year** students of **Medical Faculty for International Students**
in the VI semester of the 2020/2021 academic year

| Number of class | Number of topic - number of academic hours | Topic |
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| LECTURES | | |
| Section 1. Fundamentals of Disaster Medicine | | |
| 1. | T.1.1.1– 2 | Medical and tactical characteristics of emergency situations |
| 2. | T.1.2.1– 2 | System of emergency management. |
| 3. | T.1.3.1– 2 | Medical and tactical characteristics of accidents on chemically hazardous objects and radiation hazardous objects. |
| 4. | T.1.4.1– 2 (student self-directed work) | Organization of treatment-evacuation support of victims in emergency situations. |
| 5. | T.1.5.1– 2 | General principles of providing of emergency medical assistance to victims of emergencies. |
| 6. | T.1.6.1– 2 (student self-directed work) | Organization of work of the medical units and health care institutions in emergencies. |
| Section 2. Medical protection in emergency situations | | |
| 7. | T.2.1– 1 (student self-directed work) | The characteristic of striking factors in nuclear explosions |

GROUP and PRACTICAL CLASSES

| Number of class | Number of topic - number of academic hours | Topic and questions |
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| Section 1. Fundamentals of Disaster Medicine | | |
| 1. | T.1.1.2 - 2 | Group class: <u>Medical and tactical characteristics of emergency situations</u> 1. Emergency medicine: definition, contents, main concept. 2. Classification of emergency situations. 3. Causes of emergency situations. 4. Phases and periods of development of emergency situations. 5. Damaging factors (lesions) emergency. Primary and secondary. 6. Medico-tactical characteristics of the emergency situations/ 7. Total losses, irretrievable losses, sanitary losses, the magnitude and structure of sanitary losses in emergency situations. |
| | T.1.2.2 - 1 | Group class: <u>System of emergency management</u> 1. Tasks of the system of emergency management 2. Structure and modes of operation of the system of emergency management |
| 2. | T.1.2.2 - 1 | Group class: <u>System of emergency management</u> 3. Tasks of the emergency medical services (EMS) of the Republic of Belarus. 4. Work principles of the emergency medical services (EMS) of the Republic of Belarus. 5. organizational structure of the emergency medical services (EMS) of the Republic of Belarus. 6. Definition, the main tasks of civil defense. |
| | T.1.3.2 - 2 | Group class: <u>Medical and tactical characteristics of accidents on chemically hazardous objects and radiation hazardous objects</u> 1. Chemically hazardous objects (CHO), definition and classification. 2. Characteristics and classification of the main highly toxic substances (HTS). 3. Zone and focus of chemical damage. Types and properties of foci of chemical damage 4. Medico-tactical characteristics of foci of chemical damage. 5. Features of the organization of medical care affected in the focus of chemical damage. 6. Definition of the concept “radiation hazardous object”. Radiation hazardous facilities in the Republic of Belarus |

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| | | 7. The concept of protection of the population during radiation accidents at nuclear power plants. |
| 3. | T.1.4.2 - 3 | <p>Group class: <u>Organization of treatment-evacuation support of victims in emergency situations.</u></p> <ol style="list-style-type: none"> 1. Stage of medical evacuation, its definition, the concept scheme of deployment, the purpose of functional units 2. Types of medical care, their volume, optimal providing time, attracted forces and facilities. 3. Medical triage: definition, types, purposes. Sorting signs. 4. Sorting team. Its purpose and composition. Organization of medical sorting. Sorting marks. 5. Sorting features and groups, organizing principles, attracted forces and facilities. |
| (student self-directed work) | T.1.4.2 - 1 | <p>Group class: <u>Organization of treatment-evacuation support of victims in emergency situations</u></p> <ol style="list-style-type: none"> 1. Medical evacuation, its definition, significance, principles and types. 2. Transportation risk |
| 4. | T.1.5.2 - 3 | <p>Practical class: <u>General principles of providing of emergency medical assistance to victims of emergencies</u></p> <ol style="list-style-type: none"> 1. Initial examination of the victim and scene of the incident. <ol style="list-style-type: none"> 1.1. Personal safety. 1.2. Verification of the upper airway. Ways to restore it. 1.3. The algorithm "Obstruction of the respiratory tract by a foreign body." 1.4. Evaluation of consciousness. Glasgow Scale. 1.5. Signs of clinical and biological death. 1.6. First aid for bone fractures. Transport immobilization. 1.7. Algorithm "Hypovolemic shock" |
| 5. | T.1.5.2 - 3 | <p>Practical class: <u>General principles of providing of emergency medical assistance to victims of emergencies</u></p> <ol style="list-style-type: none"> 2. Procedure of rendering urgent medical care. 3. First aid for bleeding. 4. First aid for thermal and chemical burns. First aid for frostbite. 5. Cardiopulmonary resuscitation. 6. The secondary examination of the victim. Re-evaluation of the situation and decision-making. |
| (student self-directed work) | T.1.6.2 - 1 | <p>Group class: <u>Organization of work of the medical units and health care institutions in emergencies</u></p> <ol style="list-style-type: none"> 1. Planning and organization of medical care to the population in emergency situations. 6. The causes of epidemic foci in emergency areas. 7. Organization and characteristics of the main sanitary-hygienic and antiepidemic actions in zones of emergency situations. 8. Types of sanitary and epidemic conditions of human settlements. 9. Quarantine and Observation. Definition of concepts, main activities. |
| 6. | T.1.6.2 - 2 | <p>Group class: <u>Organization of work of the medical units and health care institutions in emergencies</u></p> <ol style="list-style-type: none"> 2. Organization of work of state health organizations that provide emergency (emergency) medical care. Actions of the ambulance team arrived first to the scene of emergencies. 3. Organization of the work of medical units of emergency medical care in emergency situations. 4. Organization of work of health care organizations for the provision of medical care in emergency situations. 5. The actions of medical personnel in the event of an emergency in a hospital. 10. Organization of work of health care units and institutions in the event of hotbeds of mass infectious diseases. 11. Organization of medical sorting of infectious affected |
| 6. | Ex-1 | Examination of the section "Fundamentals of Disaster Medicine" |


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| 7. | T.2.3 - 3 | Section 2. Medical protection in emergency situations Group class: Means of individual and collective protection 1. Means of individual protection of skin, operating and physiology-hygienic characteristic. 2. Classification of means of individual protection of respiratory organs. 3. Means of individual protection of respiratory organs, their operating and physiology-hygienic characteristic. Medical control of antigas training. |
| 8. | T.2.3 - 1 T.2.4 - 2 | Group class: Means of individual and collective protection 4. Collective means of protection, purpose, device. Sanitary and hygienic requirements to medical shelters. Group class: Medical means of protection from chemical and radiation damage 1. Medical means of protection from chemical lesions (antidotes). Main groups of antidotes, their mechanism of action. 2. Medical means of protection from external radiation. Main groups of radio protectors. Mechanism of radio protective action of radio protectors. 3. Means of long maintenance of the increased radio resistance of an organism. 4. Prophylactics of primary reaction to radiation 5. Prophylactics of early incapacity. 6. Means of pre-hospital treatment of an acute radiation sickness. |
| (student self-directed work) | T.2.5 - 2 | Group class: Means of radiation survey, radiometric and radiation control 1. Technical means of radiation survey and radiometric control (DP-5, DP-64, IMD-1r). The principle of the device and the rule of work with devices of radiation survey, monitoring of radiation contamination and measurement of exposure doses (DKP-50, ID-1, ID-11). |
| (student self-directed work) | T.2.8 - 1 | Group class: Assessment of the chemical situation 1 The concept of a chemical focus. Assessment of the chemical environment. The purpose and methods of assessing the chemical environment. Baseline data for its evaluation |

LITERATURE

1. Medicine of extraordinary situations: textbook for students of higher medical institutions / V.V. Chaplyk, P.V. Oliynyk, S.T. Omel'chuk, V.V.Humenyuk. - Vinnytsya: Nova knyha, 2012. - 344 p. **(Get in the library of foreign literature on the eve of classes - room 205)**
2. Koenig and Shultz's Disaster Medicine: Comprehensive Principles and Practices, Authors: Kristi L. Koenig, Karl A. Shultz, CUP, 738 P.
3. Ciottone's Disaster medicine / [ed. by] Gregory R. Ciottone. - 2nd ed. - [Philadelphia] : Elsevier, 2016. - 1013 p.
4. Conflict and Catastrophe Medicine [Text] : a practical guide / editors: Adrian Hopperus Buma [et al.] ; associate editors: Ravi Chauhan, John-Joe Reilly. - 2nd ed. - London : Springer-Verlag, 2009. - 644 p.

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