

Ministry of Health of Ukraine  
Ukrainian Medical Stomatological Academy

APPROVED  
at a meeting of the department  
disaster medicine  
and military medicine  
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Head of Department

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**Methodical instructions  
for independent work of students  
during preparation for a practical (seminar) lesson  
and in class**

Academic discipline	<b>Training of reserve officers</b>
Module № 2	Essentials of Civil and Combat Medical Support
Topic of the lesson	Current System of Treatment –and – Evacuation Combat Support. Modern system of medical and evacuation support of troops
Course	2
Faculty	foreign students training specialty "Medicine", "Stomatology".

## 1. **Relevance of the topic:**

Medical and evacuation support is the most important section

medical support of troops in wartime. Its main goal is to save lives and restore combat readiness and efficiency as soon as possible and return to the ranks of as many wounded and sick servicemen as possible, which in modern warfare is the most effective way to replenish the active army.

Experience of medical support of troops in military conflicts

second half of XX century. and in recent years convincingly proves that properly and clearly organized medical and evacuation support is the main factor that determines the effectiveness of the medical service. This topic is the basic topic of the discipline. Without a quality study of the topic, the future specialist may not happen, so the study of the topic should be given much attention.

## 2. **Specific objectives:**

-deepen and consolidate students' knowledge of the organization of the basics of medical and evacuation activities carried out by the medical service in peacetime, to form in them the ability to apply the basic principles of phased evacuation treatment in the interests of providing timely medical care to the wounded and sick and their evacuation.

know:

- organization and procedure for medical and evacuation measures;
- organization and procedure for medical sorting;

be able:

- organize medical and evacuation measures, medical sorting.

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

In accordance with the requirements of the standard, the discipline provides students with the acquisition of competencies:

-integral: The ability to solve typical and complex specialized problems and practical problems in professional activities in the field of health care, or in the learning process, which involves research and / or innovation and is characterized by complexity and uncertainty of conditions and requirements. The ability of the individual to organize an integrated humanitarian educational space, the formation of a single image of culture or a holistic picture of the world.

-general: The ability to apply knowledge in practical situations. Ability to exercise self-regulation, lead a healthy lifestyle, ability to adapt and act in a new situation. Ability to choose a communication strategy; ability to work in a team; interpersonal skills. Ability to abstract thinking, analysis and synthesis, the ability to learn and be modernly trained. Definiteness and perseverance in terms of tasks and responsibilities.

-special (professional, subject): Ability to carry out medical and evacuation measures. Ability to determine the tactics of emergency medical care. Emergency care skills. Skills to perform medical manipulations.

3. Basic knowledge, abilities, skills necessary for studying the topic (interdisciplinary integration):

Name of previous disciplines	Acquired skills
<p><b>1. The history of medicine.</b></p> <p><b>2. Civil protection.</b></p> <p><b>3. The basics of law.</b></p> <p><b>4. Human anatomy, normal physiology.</b></p> <p><b>5. General hygiene and ecology.</b></p> <p><b>6. Internal diseases.</b></p>	<p>1. Know the role of domestic scientists in the development and organization of emergency medicine.</p> <p>2. Basic measures to protect the population and territories in case of emergency.</p> <p>3. To be able to use general legal principles to explain the actions and actions of a doctor in the event of an emergency.</p> <p>4. The structure and physiological basis of the functioning of human organs and systems. Determine the severity and location of the lesion.</p> <p>5. To justify the need for optimal interaction between humans and the environment in order to maintain health.</p> <p>6. To be able to assess the general condition of the patient, to examine and sort the victims according to severity.</p>

4. Tasks for independent work in preparation for the lesson and in the lesson.

1. Know the role of domestic scientists in the development and organization of emergency medicine.

2. Basic measures to protect the population and territories in case of emergency.
3. To be able to use general legal principles to explain the actions and actions of a doctor in the event of an emergency.
4. The structure and physiological basis of the functioning of human organs and systems. Determine the severity and location of the lesion.
5. To justify the need for optimal interaction between humans and the environment in order to maintain health.
6. To be able to assess the general condition of the patient, to examine and sort the victims according to severity.

4.1. The list of basic terms, parameters, characteristics that a student must learn in preparation for the lesson:

Term	Definition
<p><b>Medical Sort</b></p> <p><b>Intra-item sorting</b></p> <p><b>Evacuation and transport sorting</b></p> <p><b>Under the hotbed of mass destruction</b></p>	<p>this is the distribution of victims into groups on the basis of the need for homogeneous treatment and evacuation and preventive measures in accordance with medical indications, the amount of medical care provided and the accepted procedure for evacuation.</p> <p>aims to distribute the victims into groups to refer them to the appropriate functional units of this stage of medical evacuation and to establish the priority of their direction to these units.</p> <p>It is carried out in order to distribute the victims into groups in accordance with the evacuation purpose, priority, ways and means of their subsequent evacuation, as well as the need for medical support.</p> <p>understand the territory with people, animals, military equipment, vehicles and various property that have been directly affected by WMD, which leads to simultaneous massive losses of troops (forces).</p>

#### 4.2. Theoretical questions to the lesson:

1. Medical sort in combat.
2. Definition, brief description.
3. The main objectives, principles and organization of medical sorting.
4. Medical evacuation, the concept, purpose and procedure.
5. Vehicles to evacuate the wounded and the sick. 6. Peculiarities of organization and conducting of medical-evacuation measures in the conditions of the antiterrorist operation in the East of Ukraine.

#### 4.3. Practical work (tasks) that run in class:

1. Conduct medical triage.
2. The procedure of medical evacuation.
3. Medical vehicles to evacuate the wounded and the sick.

The contents of the topic:

Medical sort.

The definition of its objectives. Organization of medical sorting of the wounded and sick.

An important organizational element of the modern system of LAO is a medical sort. Its foundations developed an outstanding military field surgeon Nikolai Ivanovich Pirogov, who first used it during the Crimean war of 1853-1856. "I first introduced the sorting on the Sevastopol dressing points and destroyed the prevailing chaos there ..." Developed by M. I. Pirogov, the principles of medical sorting was further developed in the works of prominent local surgeons and fully justified itself in practice in the years of the great Patriotic war. The value of the medical sort especially the increase in the stages of medical evacuation in terms of the use of weapons of mass destruction.

Medical sort - the distribution of victims into groups on the basis of homogeneous needs medical evacuation, and prophylactic measures in accordance with medical indications, the volume of medical care provided and accepted procedures for evacuation. Sorting of victims is carried out on each of EME and implemented in all functional units. The contents of the sorting depends on the tasks assigned to certain functional units and EME in General, and the military and medical situation.

The objective of medical triage is to ensure that affected timely implementation of preventive measures and further evacuation.

The objective of medical triage is to determine the nature of the lesion, to determine the sequence, location (functional unit) providing the injured medical help (treatment) to determine the order of evacuation: evacuate to where, in what place, on what transport and in what position.

Medical sorting of EME, there are the following main groups affected:

- pose a danger to others (infectious, patients affected by toxic substances, bacterial agents, those that have contamination of skin and clothing by radioactive

substances above acceptable norms that are in sharp psychomotor excitation, etc.), and therefore subject to special treatment or isolation;

- in need of medical assistance at this stage of medical evacuation;
- awaiting for further evacuation without providing them with medical care;
- received lesions incompatible with life (agonidae) and require only symptomatic treatment and care;
- to be returned to their units after treatment and rest.

Depending on the tasks solved in the process of medical sorting of victims, there are two types: vnutriportovaya and evacuation transport.

Vnutriportovaya sorting aims to distribute the affected groups to guide them to the concerned functional divisions of this stage of medical evacuation and to set the priorities for their areas in these units.

Evacuation and transport sorting is carried out with the purpose of distribution of the affected groups in accordance with the emergency assignment, the priority, of ways and means, and their subsequent evacuation, as well as the need for medical supervision.

Vnutriportovaya and evacuation-TRANSPORTNYE sort, as a rule, are carried out simultaneously, that is, near the release of flood victims in need of appropriate medical treatment at this stage - determined evacuation destination, the sequence, method and means of evacuation of casualties, not nujdayushixsya medical help at this stage. Triage usually is based on the diagnosis of the perpetrator of the forecast and therefore always carries diagnostic and prognostic in nature. The results of the medical sort, are denoted by sorting the brands, and also registered in the primary medical record, medical history.

Medical sorting sorting is advantageously carried out by teams composed of a doctor, two nurses, two receptionists and 1-2 units-techs-porters.

Without medical sort, it is impossible to do in the case when there is a need for medical care multiple, and especially a large number of victims.

Properly organized medical selection contributes not only the successful implementation of medical-evacuation support, but also the most rational use of forces and means of medical service.

Medical evacuation. The definition of the concept, its purpose and function.

Sanitary vehicles used to evacuate the victims.

Medical evacuation is an integral part of Leo and is inextricably linked with the provision of medical assistance to the victims and their treatment. From a medical perspective, evacuation is a necessary measure due to the inability to arrange proper treatment of victims in the immediate vicinity of the battle area.

Medical evacuation - a set of measures to transport the injured from the area of occurrence of sanitary losses at health centres and to hospitals for timely and complete provision of medical care and treatment. In addition, medical evacuation

ensures release of EME, creating conditions to move in accordance with the military and medical situation. The path along which the victims are carried out and transported to the rear is called the medical evacuation route. As a rule, medical evacuation routes correspond to the means of transporting material assets to the troops (forces), which makes it possible to use roads serviced by engineering troops and the road service, as well as general-purpose return flights delivering ammunition, food and other material to the troops technical means.

The set of evacuation routes, the stages of medical evacuation and ambulance vehicles deployed on them, which provide certain troop groups, was called the evacuation line.

The most difficult problem is the evacuation of victims from the battlefield. Here, evacuation is carried out mainly by transporting victims on small-sized off-road vehicles, and sometimes by carrying them out by orderlies as porters.

Further evacuation of victims is carried out by road sanitary transport; it is advanced as close as possible to the places where sanitary losses occurred. Evacuation of casualties from units, medical facilities, met teams and medical institutions can be arranged with the relevant senior officer and carried out by subordinate means of transport. This principle is called the evacuation "the evacuation itself." In some cases, the chief medical officer may carry out the evacuation of victims from subordinate of EME in the rear of his transport, that is "by itself". This method can be used for minor health losses in parts of the second tier, reserve units deployed in the rear lane when nominating parts etc. the Main way is to "evacuate themselves", in which there is a more efficient use of vehicles in accordance with the situation. In addition, you can apply the principles of medical evacuation, namely: "evacuation neighbor", "through evacuation", "evacuation for you."

The evacuation of the wounded on the BCH, if the deployment is carried out by transport BCH, sanitary conveyors, transport allocated by the battalion commander. In Metz brigade evacuation is carried out by sanitary transport met; appropriate transport is used for General purposes, with honey to the APPG victims are delivered to the medical transportation private regiment medical support AK, as well as a dedicated command of General transport. From the stage of qualified medical care (APPG), evacuation of victims being intended to specialized military field hospitals. Evacuation on purpose - the principle of medical evacuation, in which victims are sent from EME that provides KMP, directly into specialized medical institutions, where they can be provided with comprehensive medical care and specialized treatment is provided. Evacuation is carried out regular sanitary transport medical services, transport of General purpose. The latter is used primarily for the evacuation of walking wounded and

legkobetonyh. It requires additional equipment (equipment with special devices for the installation of a stretcher, means of protection from dust, heat, cold, etc.). Makemesmile some vehicles are shown in table 1.

Peculiarities of organization and conducting of medical-evacuation measures during liquidation of consequences of application by the enemy of weapons of mass destruction.

The above provisions on the organization of LAO fully retain their value if their conduct in the application of enemy weapons of mass destruction (WMD). However, in the area where the enemy uses these weapons, such difficult conditions are created, several different forms and methods of work of the medical service to provide medical assistance to the victims and their evacuation are needed. The conditions of the medical service during the use of WMD by the enemy are determined primarily by the specifics of the sanitary losses that the troops bear from these weapons. The nature of nuclear, chemical and biological weapons, as well as the enemy's desire to unexpectedly use these types of weapons, cause the simultaneous occurrence of massive sanitary losses. In this case, the affected will be, as a rule, in a relatively limited territory, that is, in the lesion focus.

Under the hearth of mass destruction understand the territory with humans, animals, military equipment, vehicles and various property exposed under the direct influence of WMD that cause mass casualties of personnel of troops (forces). Consequently, the application of enemy weapons of mass destruction medical service must be accomplished in a short time a large complex of medical-evacuation measures, some of which is produced directly in the hearth of mass destruction.

An important condition for the activities of the medical service when using weapons of mass destruction is the difficulty of determining in advance the place, time and extent of its use by the enemy. In this connection it is necessary to timely inform medical services about the occurrence of the centres of mass destruction, and creating a standing reserve of forces and means of medical service, the definition of common usage and maintenance of all forces and means of medical service in constant readiness for the event of the liquidation of consequences of the use of enemy weapons of mass destruction.

It should be borne in mind that the area of the lesion will be contaminated with radioactive, toxic substances and bacteriological means of attack. It interferes in the lesion, causing the necessity of using special means for protection of the affected and of the personnel of the medical service requires the sanitary treatment of the affected, as well as decontamination, decontamination and disinfection of their uniforms at the stages of medical evacuation. An important condition for the



activities of the medical service in the application of enemy weapons of mass destruction is the nature of the combat situation in the first place the presence or absence of the threat of the enemy in the area of the hearth of mass destruction. In the presence of such threats, the main task is the rapid evacuation of victims from the area. The volume of medical aid at the stages of medical evacuation in these conditions is reduced.

In the absence of the threat of exit of enemy troops in the area of the hearth, favorable radiological, chemical and bacteriological situation forces and means of medical service can be approximated directly to the lesion to provide medical assistance to the victims in full.

Medical evacuation support and rescue operations in the lesion are a group of liquidation of consequences of the use by the enemy of weapons of mass destruction, as well as by forces and means of medical service of the affected parts (divisions). The squad for the liquidation of the consequences of the use of enemy weapons of mass destruction, in addition to the medical staff of the injured part (Department) may enter medical units of battalions and units of collection and evacuation medr brigade.PMP for the affected is provided in the form of self-help and mutual assistance, as well as the personnel of units performing rescue operations. Sanitary instructors and paramedics from these units directly manage PMP activities and personally provide them with severe injuries. After providing affected PMPs, they are taken out (taken out) from the outbreak to uninfected areas of the terrain (lightly affected ones go out on their own), where they expect evacuation to the medical team or to the HPAI. The medical units of the units involved in eliminating the consequences of the use of WMD by the enemy are located as close as possible to the lesion.

In the system of medical and evacuation measures carried out by the medical service during the liquidation of the consequences of the use of WMD by the enemy in the conditions of the successful deployment of the offensive, it is important to quickly advance the organization of the forces and means of the medical service, ensuring the provision of PHC (HPAI, reinforcement groups). If there are appropriate opportunities for large foci of massive sanitary losses, it is advisable to nominate a group of military field hospitals.

Depending on the degree of threat of the enemy's exit into the area of the lesion focus, the forces and means allocated to eliminate the consequences of the use of WMD by the enemy are deployed in close proximity to the focus or at some distance from it.

Evacuation of victims from the foci of mass destruction should be carried out as soon as possible in compliance with measures to prevent additional infection of their RS, OV, BO.

For the evacuation of victims from the centers of mass destruction to the following EMEs, both ambulance vehicles and general purpose vehicles are used, and for evacuation from HPAI, aircraft are also used..

Materials for self-control:

1. Name the sequence of stages of medical evacuation from the front to the rear (the classic version):

- a) mobile hospital and territorial base;
- b) medical battalion;
- C) the medical company of the brigade;
- g) military mobile hospital medical teams of the army corps.

2. Name the sequence of stages of medical evacuation from the front to the rear (the classic version):

- a) the medical company of the brigade;
- b) mobile hospital and territorial base;
- C) medical battalion;
- g) military mobile hospital medical teams of the army corps.

3. Name the sequence of stages of medical evacuation from the front to the rear (the classic version):

- a) medical battalion;
- b) military mobile hospital medical teams of the army corps;
- C) the medical company of the brigade;
- g) mobile hospital and territorial base.

4. You need to understand to sort?

- a) triage is the sorting of the wounded and sick on the basis of uniform requirements, evacuation and prophylactic measures in accordance with medical indications, medical care and received the evacuation order;
- b) triage is the sorting of the wounded and sick on the grounds of the severity of injury in accordance with medical indications, medical care and accepted procedures for evacuation;
- C) triage is the sorting of the wounded and sick on the grounds of the localization of the injury, subject to medical indications and medical care;

d) triage is the sorting of the wounded and sick in the duration of exposure to the damaging factor.

5. What is medical evacuation?

a) medical evacuation is an organized collection of wounded, sick and injured, their transportation from the scene of hostilities, the hearth of mass destruction on the stages of medical evacuation, where they will be presented to the medical care and treatment;

b) medical evacuation is the organized removal of the wounded from the battlefield to military hospitals, bypassing the stages of medical evacuation;

C) medical evacuation is an organized collection of wounded, sick struck in places where they will be held quality treatment;

g) medical evacuation is an organized collection of wounded, sick and injured, with subsequent transportation of them to the rehabilitation center where they will be sent to help the army;

d) medical evacuation is the organized provision of medical care on the battlefield in centers of mass destruction, the wounded and sick and their subsequent

Basic references

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Guidelines prepared by  
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direction to the rear.

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