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[1]DM to STI 000G(B).21L

TACTICAL PRE-HOSPITAL CARE

(INDIVIDUAL TRAINING COURSE)

(BY THE BASIC PROGRAM GENERAL MILITARY TRAINING (FOR TRAINING OF MOBILIZATION RESOURCES, VERSION 5, TRAINING TERM 1.5 MONTHS,

with amendments and additions (Order of the General Staff of the Armed Forces of Ukraine No. 41223/S dated 05.04.2025)

Order of the Commander-in-Chief of the Armed Forces of Ukraine No. 53 dated April 8, 2025

DISTRIBUTION RESTRICTIONS:

For distribution in the Armed Forces of Ukraine and other components of the State Defense Forces. Copies are made with the permission of the developer of the training standard.

The second edition, which replaces the edition STI 000G(B).21L, was approved and put into effect by order of the Head of the Center for Operational Standards and Training Methods of the Armed Forces of Ukraine dated February 24, 2025 No. 13.

COMMAND OF THE MEDICAL FORCES OF THE ARMED FORCES OF UKRAINE IN JOINT WITH THE CENTER FOR OPERATIONAL STANDARDS AND TRAINING METHODS OF THE ARMED FORCES OF UKRAINE

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Reference material to the commanders (to class leaders, For instructor-components of the State Defense Forces. teaching staff) training standard. NC (CPP, ONS, schools etc.) and military Training Methods of the parts The Armed Forces of Ukraine and the ICSU to prepare for conducting classes with tactical prehospital assistance

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LIST OF ABBREVIATIONS AND SYMBOLS

Abbreviations and conditionals marking	Full name of the phrase and shortening the concept
1	2
AMZI	Medical first aid kit, military, individual
DM	Reference materials
PPE	Personal protective equipment
of the Armed Forces of	Armed Forces of Ukraine
Ukraine NTZ	Educational and training aids
OC	Main training objectives (the training material of the modules necessary for the military personnel to master is determined)
OMV	Weapons and military equipment
PV	Practical training (performance of practical exercises by cadets)
PC	Intermediate training goals (the training material on the topics necessary for military personnel to master is determined)
RCBz	Radiation, chemical, bacteriological protection
STP	Training standard
STI	Individual training standard
SZ	Tasks for independent study
SR	Independent work

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KEY TERMS AND DEFINITIONS

Tactical medicine – the provision of tactical pre-hospital care is aimed primarily at eliminating preventable causes of death, according to principles that take into account the threat in tactical conditions.

Tactical conditions – conditions for conducting combat operations and training for the purpose of components of the security forces and defense forces.

Tactical pre-hospital care – emergency actions and organizational measures, including the performance of medical manipulations (interventions) and the use of medicines, aimed at saving and preserving human life in an emergency situation and minimizing the consequences of the impact of such an emergency health conditions carried out by members of the defense and security forces who have received appropriate training or are appropriately qualified;

Medical intervention – the application of diagnostic methods, prevention or treatment related to the impact on the human body; qualified **Tactical Medicine**

Instructor – a military serviceman who trains other military personnel in the subject of tactical pre-hospital care.

The acronym of the algorithm MARCH PAWS is the English abbreviation of the algorithm providing assistance to the victim: M – Massive bleeding, A – Airway, R – Respiration, C – Circulation, H – Hypothermia/head injuries, P – Pain, (Antibiotics), W – Wounds, S – Splinting;

The acronym of the AVPU scale is the English abbreviation of the scale for determining the level of consciousness: A – Alert (conscious), V – Verbal (responds to voice), P – Pain (responds to pain), U – Unconscious (unconscious);

The MIST report is an oral report used to convey information about the casualty to subsequent stages of evacuation. M – mechanism of injury/trauma; I – information about the injury; C – symptoms; T – therapy (amount of care provided).

Exercise is a purposeful and systematic organized performance of mental and practical actions (techniques) for the acquisition of knowledge, mastery, formation and improvement of practical skills and abilities.

A group exercise is a form of training that is a practical lesson in managing a unit as part of a training group, where all those who are training act in the role of one, and sometimes several, officials.

Debriefing is an interactive process of discussing and analyzing the experience gained during training, with the aim of consolidating knowledge and improving future activities.

Action(s) – doing something, influencing something.

Discussion is a method that allows you to present different points of view and justify your position, as well as the opportunity to more convincingly affirm the main theoretical issues in your mind.

A task (subtask) is a clearly defined action(s) that is/are assessed and performed by a military command body, a military unit (headquarters,

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unit, military temporarily created military formation), personnel.

A soldier's knowledge is a set of perceived information, concepts, processes, procedures learned during military training.

The individual capability of a serviceman is the level of his theoretical knowledge, practical skills and abilities, psychological and physical qualities that a serviceman must possess to perform functional duties in accordance with the position held.

A case is a form of instruction that involves using specific cases (situations, stories) for joint analysis, discussion, and development of solutions by cadets to resolve the specified situation.

Adjustment – changing educational goals, methods, forms and methods of teaching according to the results obtained.

Military skills are the ability of a military person to automatically perform certain actions. The practical application of knowledge, skills and abilities during the training process ensures their transformation into professional proficiency.

The training material and technical base is a set of material and technical means and specially equipped training facilities that are designed to ensure the training of military personnel and the coordination of tactical-level units.

A standard is a time, quantitative and qualitative indicator of the performance by individual servicemen or units of assigned tasks, techniques and actions related to the use of weapons and military equipment during combat training.

The subject of study is a system of concepts about phenomena, patterns, laws, and theories of any relevant field of activity with the determination of the required level of formation of a certain set of knowledge, skills, and abilities in those who study.

Reception is a separate action, movement.

Ability is a property that allows you to perform certain actions for achieving a specific goal taking into account defined resources.

Training standard – a regulatory document (unified process) that defines the sequence of achievement by military command bodies (headquarters, units, ships, servicemen) of operational (combat, special), individual military capabilities to perform perform specific tasks, which defines the criteria for their evaluation. Training standards are divided into standards of individual (basic combined-arms, professional) training and collective training and are aimed at achieving compatibility in the training of units of the Armed Forces of Ukraine and NATO member states.

Training is the meaningful multiple repetition (execution) of already learned exercises (techniques, actions) for their consolidation (improvement).

The skill of a military serviceman is the ability of military personnel to properly perform certain actions in practice, acquired on the basis of tasks received in the military sphere. Systematic and purposeful training of those who are trained by performing certain actions that ensure the transformation of knowledge and abilities into skills.

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"Health so outweighs all the blessings of life that a truly healthy beggar is happier than a sick king."

(Arthur SCHOPENGAUER)

1. Basics of providing assistance in conditions of military (combat) operations

1.1 The concept of tactical pre-hospital care in conditions of military (combat) operations.

Tactical pre-hospital care – emergency actions and organizational measures, including the performance of medical manipulations (interventions) and the use of medicines, aimed at saving and preserving a person's life in an emergency situation and minimizing the consequences of the impact of such a situation on his health, carried out by persons of the defense and security forces who have undergone appropriate training or have the appropriate qualifications.

Early initiation of tactical pre-hospital care is a factor that significantly improves the chances of survival and restoration of normal functioning of the body in the injured person. Therefore, the first minutes after injury are the most important, during which the provision of qualified tactical pre-hospital care should begin.

Every serviceman of any modern army, in addition to mastering weapons, physical and tactical training, perfectly masters the skills of providing tactical pre-hospital care. A serviceman who does not have knowledge of tactical pre-hospital care is dangerous to himself and his comrades.

The tactical pre-hospital care section is designed to teach basic skills in providing self-help and mutual assistance in conditions of military (combat) operations. Self-help is the scope of
tactical pre-hospital care that
the serviceman provides for himself.

Mutual aid is the amount of tactical pre-hospital care provided by other service members to a casualty using resources from the casualty's individual medical kit or group medical kits.

1.2. Major preventable causes of battlefield mortality

Providing tactical pre-hospital care on the battlefield is the main key to saving the life of the injured. Analysis of the causes of death of servicemen during combat operations indicates that a significant number of them could be saved with timely and high-quality provision of tactical pre-hospital care. About 90% of deaths in combat conditions occur before the injured reach a health care facility. Most injuries are incompatible with life (extensive trauma to the torso, severe head trauma, etc.). However, some conditions, such as massive bleeding from a wound on the arm or

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leg and upper airway obstruction can be eliminated on the battlefield. With proper self- and mutual aid measures, battlefield deaths can be significantly reduced.

The correct actions of the first responder are crucial. Improving the care of the injured leads to a significant reduction in mortality rates in the subsequent stages of evacuation. In cases where a serviceman is injured while performing combat
missions, the time for providing tactical pre-hospital care is limited. Therefore, it is extremely necessary to react correctly, detect and provide appropriate care in order to avoid consequences that lead to the death of personnel:

In case of massive bleeding, the victim can die within 3 minutes, the cause of death is the rapid loss of a significant amount of blood.

In case of impaired upper airway patency due to: obstruction by foreign bodies, tongue root retraction, loss of consciousness (head injury, shock) – in the prone position, the victim dies in 5 minutes.

With a penetrating chest wound, death occurs within 30 minutes to 1 hour, the cause of death is cerebral hypoxia due to pneumothorax.

Also, the most common causes of death of victims include:
hemorrhagic shock (a condition associated with blood loss) and hypothermia.

1.3. Stages of tactical pre-hospital care in conditions of military (combat) operations

Modern views on the provision of tactical prehospital care have formed into a separate field of knowledge – "tactical medicine", which involves a clear division of the scope of tactical prehospital care depending on the stage of its provision.

The main goals of tactical prehospital care include:
performance of a combat mission (completion of a combat operation);
own safety;
prevention of additional injuries and trauma to the victim;
providing a certain amount of assistance to the victim.

In order to clearly delineate the possibilities and limitations of the scope of assistance to victims, the following stages are conditionally distinguished:

Direct threat zone (stage of Assistance under fire) is a conditional zone where military (combat) actions are being conducted and there is an immediate threat to the life and health of a serviceman due to the direct impact of available enemy weapons, or when the action of external factors is more threatening to the rescuer and the victim than the injuries received. It is characterized by a significant limitation of the scope of tactical pre-hospital care due to

the available enemy fire.

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The indirect threat zone (stage of Assistance in tactical cover) is a conditional zone where military (combat) actions are conducted with available adapted or unadapted cover, which creates some protection from the direct impact of available enemy weapons and allows avoiding additional injuries/traumas. It is characterized by the absence of direct fire impact from the enemy.

Safe zone (Evacuation stage) is a conditional zone that is considered safe and from which the injured servicemen are evacuated to the next stages of evacuation. It is characterized by a sufficient distance from direct enemy fire.

General sequence of actions and scope of providing tactical pre-hospital care in conditions of military (combat) operations:

In the area of direct threat (Help under fire stage):

As part of self-help in a direct threat zone, the following actions should be taken:
If possible, continue the combat mission.
1. 2. Report to the immediate commander about the damage (injury) received, request assistance - fire support (cover) and, if necessary, assistance from other military personnel, and follow the instructions of the immediate commander.

3. Stop massive external bleeding.
4. Move to tactical cover (adapted or unsuited) and/or protect yourself from further injury.
As part of mutual aid during the Aid Under Fire phase: 1. First of all, you must ensure your own safety. 2.
If possible, continue the combat mission with the aim of establishing fire advantage to avoid additional casualties and injuries to existing casualties. 3. Use the “3D” rule (report, assist (cover), permit).

4. Determine priorities for providing assistance:
extracting/moving victims from burning vehicles or buildings;

stopping massive external bleeding under favorable tactical conditions;

if possible, order the victim to move to tactical shelter (adapted or unadapted) and protect themselves from additional injuries/trauma and provide self-help;

if the victim is unconscious or conscious but unable to move – a plan should be developed and implemented to rescue the victim (if tactically feasible);

Determine the level of risk to those providing assistance, consider your current preferences, and ensure that all personnel involved understand the plan for moving the casualty.

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In the indirect threat zone (Tactical Cover Assistance stage):

1. Provide security measures, camouflage and protection of the territory.

2. Assess the victim's state of consciousness, disarm him and remove his means of communication, if this has not been done previously. If the victim is conscious, maintain constant contact with him.

3. Determine the priority of providing assistance if there are several victims.

4. Examine and provide assistance to the victim according to the algorithm MARCH.

IMPORTANT! *When providing assistance to the victim, use appropriate personal protective equipment.*

In the safe zone (Evacuation stage):

1. Prepare the victim for evacuation, periodically reassess his condition according to the MARCH PAWS algorithm, and pay special attention to controlling bleeding and breathing.

2. Provide psychological support and communicate with the victim.

3. If possible, communicate with medical personnel and transmit information about the victim using the MIST report.

4. Fill out the “Victim Card”.

1.4. Military medical individual first aid kit (AMZI)

1.4.1. Purpose and rules for using AMZI

The military individual medical first aid kit (AMI) is intended to provide assistance to victims in combat conditions, both in a self- and mutual aid, and is used by military personnel for their intended purpose during combat missions or in emergency situations when injured or wounded (Figure 1.1).

Rules for using the AMZI (hereinafter referred to as the first-aid kit): The first-aid kit is intended for personal use by a serviceman or to help a fellow human being.

When providing mutual aid, the victim's first aid kit is used first.

You need to know the contents of a first aid kit, as well as be able to use it correctly. all its components.

It is prohibited to use the facilities available at AMZI unnecessarily or incorrectly.

It is necessary to check the condition of the first aid kit regularly, especially before going out. task.

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1.4.2. Composition of AMZI and purpose of each AMZI agent

The composition of the AMZI was approved by the order of the Ministry of Defense of Ukraine dated April 24, 2024 No. 506 “On approval of the Lists of medicines and medical devices provided to the personnel of the security forces and defense forces for the provision of tactical pre-hospital care”.

The AMZI includes the following medicines, materials and equipment (Table 1):

Composition of the combined-arms individual medical first aid kit (AMZI)

I. Medicines

No. of the company	Name	Unit of measurement	Number
1	Paracetamol, solid oral form 2 Meloxicam, solid oral	mg	1000
form 3	Moxifloxacin, solid oral form	mg	15
	or Levofloxacin, solid oral form	mg	400 or 500

II. Medical products

No. company	Name of the company/	Unit of measurement	Number
1	2	3	4
4	Mechanical tourniquet for stopping bleeding type	pcs.	2
5	Tampon bandage with hemostatic chemical substance, length from 1.5 m and width from 7 cm	pcs.	2
6	Pressed gauze bandage, width from 10 cm, from 3.5 m long	pcs.	2
7	Elastic bandage with absorbent and compression elements, width from 14 cm	pcs.	1
8	Set of occlusive dressings (stickers) on gel basis	pair	1
9	Thermal blanket on a polyethylene base, width from 160 cm, lengths from 210 cm 10	pcs.	1
Protective hard eye shield 11 Medical examination		pcs.	1
nitrile gloves, non-sterile (size M and L) 12 Adhesive plaster on a fabric base,	length 3-5 m,	pair	2
	3-5 cm wide	pcs.	1
13	Scissors for cutting clothes and shoes (atraumatic) from 18 cm long	pcs.	1

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III. Other

No. of the company	Name	Unit of measurement	Number
1	2	3	4
14	Waterproof marker for drawing information in blue or black	pcs.	1
15	Casualty card (standard model)	pcs.	1
16	Medical storage bag	pcs.	1

Figure 1.1 Military medical kit, individual

Depending on the specifics of the task being performed, the level of training of the serviceman, and the likelihood of potential damage from radiological, chemical, or biological weapons, the first aid kit may be supplemented with additional medications and medical devices.

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Mechanical tourniquet-type hemostatic device A mechanical tourniquet-type hemostatic device (Figure 1.2) must be in a soldier's first aid kit. It is also recommended to carry a second tourniquet externally – on equipment, in a quick access location – in the same place designated for all soldiers of the unit. It is allowed to carry a tourniquet in a separate pouch.

IMPORTANT! *If necessary, the tourniquet should be easily separated from the equipment. It is NOT recommended to wear the tourniquet in the lower pockets (below the knee) of tactical pants.*

Figure 1.2 – Mechanical turnstile of the rotary type

Symbols: 1 – buckle (to hold the turnstile sling after it is wrapping around the limb), 2 – turnbuckle (used to tighten the tourniquet, 3 – C-shaped clamp (used to fix the turnbuckle), 4 – fixation tape (for final fastening of the belt and the turnstile handle, for recording the time on it).

Elastic bandage with absorbent and compression elements.

A first aid bandage with a wound pressure applicator (Figure 1.3), also called an "Israeli bandage," is a modern dressing package that, by creating constant pressure on the wound, stops most minor bleeding.

Figure 1.3 – Elastic bandage with absorbent and compression elements

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Tampon hemostatic bandage with chemical substance hemostatic.

A hemostatic (hemostatic) agent (Figure 1.4) in the form of a hemostatic bandage with a chemical component. This bandage is used to pack bleeding wounds located in the following areas: the base of the neck, armpits, groin (nodal areas of the body), as well as the perineum and buttocks.

Figure 1.4 – Hemostatic tampon bandages with a chemical substance hemostatic.

Means for preventing hypothermia, providing assistance in case of eye injury and other means: Thermal blanket

on a polyethylene base (Figure 1.5).

Figure 1.5 – Thermo-cooking mat

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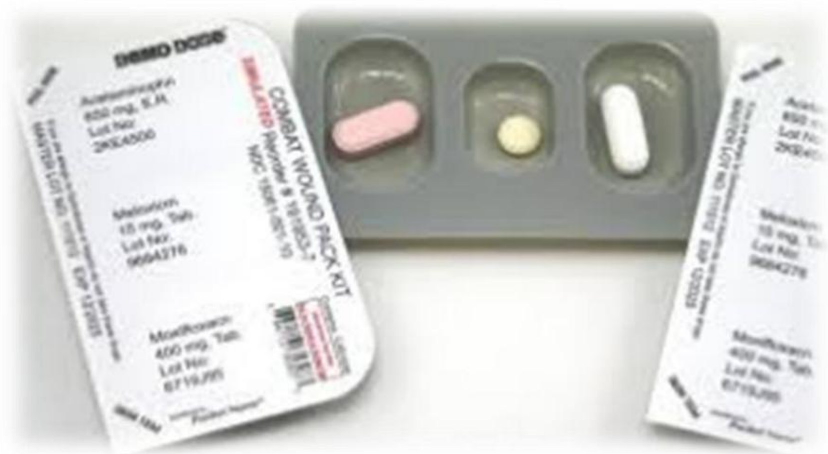

Figure 1.6 – Medication kit

Figure 1.7 – Occlusive thoracic flap with valve

Figure 1.8 – Protective hard eye shield

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Figure 1.9 – Sterile gauze bandage

Figure 1.10 – Polymer-based adhesive plaster in a roll

Figure 1.11 – Waterproof marker

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Figure 1.12 – Scissors for cutting clothes and shoes (atraumatic)

Figure 1.13 – Non-sterile nitrile examination gloves

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Міністерство оборони України **КАРТКА ПОСТРАЖДАЛОГО** Форма № 002/о Наказ МОУ __.__2025 №__

1 Загальна інформація

Дата події ___.___ ___рік Час події ___:___

Евакуаційна категорія: ☐Термінова(I) ☐Пріоритетна(II) ☐Звичайна(III)

ПІБ

ДН ___.___ ___рік Стать: ☐Ч ☐Ж ID

В/Ч ___ В/звання ___ Алергія ___

2 Механізм

☐Вогнепальна ☐Вибухова ☐Тупа ☐Відкрита ☐Тривале стиснення

☐Теплова ☐Холодова ☐ХБРЯ

Тип: ☐Проникна ☐Непроникна

☐Інше:

3 Травма

Турнікет права рука
Назва
Накладено __:__
Знято __:__
Переміщення __:__
Конверсія __:__

Турнікет ліва рука
Назва
Накладено __:__
Знято __:__
Переміщення __:__
Конверсія __:__

Турнікет права нога
Назва
Накладено __:__
Знято __:__
Переміщення __:__
Конверсія __:__

Турнікет ліва нога
Назва
Накладено __:__
Знято __:__
Переміщення __:__
Конверсія __:__

4 Життєві показники

Час	:	:	:	:
Частота дихання				
SpO_2				
Пульс				

Міністерство оборони України **КАРТКА ПОСТРАЖДАЛОГО**

5 Надана допомога

M: ☐Кінцівки TQ ☐Вузловий TQ ☐Абдомінальний TQ
☐Тампонування ☐Гемостатичний бинт
☐Тиснуча пов'язка ☐Інше

A: ☐Прохідні ☐O_2 ___л/хв ☐НФП ☐НГП ☐Кріко

R: ☐Дихальний мішок Декомпресія: ☐П ☐Л
Оклюзійна наліпка: ☐П ☐Л ☐Вентильована ☐Невентильована

C: Судинний доступ: ☐В/В ☐В/К

Інфузійна терапія

	Назва	Об'єм	Шлях введення	Час
Розчин				:
				:
Кров/компоненти				:
				:
Суха плазма				:

Лікарські засоби

	Назва	Доза	Шлях введення	Час
Анальгетик (наприклад: фентаніл, парацетамол)				:
				:
				:
Антибіотик (наприклад: моксифлоксацин)				:
				:
				:
Інші (наприклад: транексамова кислота)				:
				:

H: Профілактика гіпотермії: ☐А ☐П Засіб
☐Набір ЛЗ Щиток на око: ☐Л ☐П Іммобілізація

6 Додаткова інформація

Нотатки:

ПІБ ___ В/ч ___

Дата ___.___ ___рік Підпис ___

Figure 1.14 – Victim card f002/o
(refers to accounting documentation)

2. Providing assistance to victims in the area of direct threat (stage of Assistance under fire).

Assistance to the injured person should not interfere with the performance of the combat mission. Tactical pre-hospital assistance is provided in the form of self-
and mutual aid.

As part of self-help in a direct threat zone, the following actions should be taken:

If possible, continue the combat mission;

Report the injury (wound) to the immediate commander, request assistance - fire support (cover) and assistance from other servicemen, and if possible, continue to perform the combat mission, and then follow the instructions of the immediate commander;

Within the framework of self-help, if there are signs of external massive bleeding, use a mechanical means to stop bleeding (tourniquet), if the site of the injury allows for its use (record the time of its application -
if the tactical situation allows). If it is impossible to use a tourniquet due to the anatomical location of the wound, apply direct pressure to the wound and/or use an improvised pressure element on the wound area or on the connecting

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the area of the body above the wound (groin and inguinal areas) until help arrives or until it is possible to move to tactical cover;

Move to tactical cover (adapted or unadapted) and
protect yourself from further injuries.

IMPORTANT! *Assistance in the direct threat zone (assistance under fire stage) is provided by order of the commander, since the main priority at this*
The next stage is the execution of a combat mission.

As part of mutual aid: first of all,
you must ensure your own safety;

The main goal of assistance under fire is to establish fire superiority.
to avoid additional losses and injuries to existing victims;

The above provides an opportunity to identify priorities for providing assistance. These priorities include:

extracting victims from burning vehicles or buildings.

stopping massive bleeding using tourniquets for the extremities (for
favorable tactical situation).

moving the victim to shelter, in a favorable tactical situation.

if the victim is conscious but unable to move, and the tactical situation opens a window of opportunity, a plan should be developed and executed to rescue the victim (if tactically possible);

determine the degree of risk for rescuers, consider your advantages at this time
moment and ensure that all personnel understand the relocation plan.

use the "3D" rule (three Ds: report, assistance (cover), permission): inform the immediate commander (or senior in rank) about the presence and number of casualties; request assistance - fire support (cover) and assistance from other servicemen or junior medical personnel. If the casualty is at a distance, begin a set of actions to provide tactical pre-hospital care only after permission from the commander;

IMPORTANT! *Do not expose rescuers to danger if it can be avoided!!!*

If possible, order the casualty to move to tactical shelter (adapted or unadapted) and protect themselves from further injury/trauma and provide self-help;

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If shelter is unavailable or the injured service member cannot move to it, proceed according to your unit's standard operating procedures.

Personal safety. Lower your silhouette, find cover. Before moving
to tactical cover, it is necessary to assess the possibility and safety, taking into account the victim's movement path, his body weight, the threat of external factors, including enemy fire;
In a favorable tactical situation, move or drag the victim to tactical cover to protect him from further injury. When providing assistance, take care of your own safety.

If necessary, use covert movement, namely: terrain folds, vegetation elements, urban development, armor cover, smoke
etc.

IMPORTANT! *Act with your own safety in mind to prevent further losses in your unit.*

While providing assistance, we are in the victim's profile.
"to cover up for the victims"
It is important to control the victim's weapons and also to remove the means communication during assistance and movement to shelter.
When providing assistance to a victim, we use their first aid kit.
A bulletproof vest and helmet should always be worn by the victim.
When carrying the victim to a safe place, we go in ourselves first,
then we move the victim.
“If you didn’t see it fall, don’t pick it up.” Don’t pick up things about which you don’t have complete information.
At the stage of providing assistance in the area of direct threat (stage of assistance under fire), stop external massive bleeding using a mechanical means for stopping bleeding (tourniquet) over the uniform (clothing) clearly above the bleeding site, if the site of the wound requires its application, and record the time of its application (by any available method). If it is difficult to determine the specific site of the lesion, apply the tourniquet as high and tight as possible. If it is impossible to use a tourniquet due to the anatomical location of the wound -
Apply direct pressure to the wound and/or use an improvised pressure element on the wound area or on the connecting area of the body above the wound (groin, inguinal area) until help arrives or until it is possible to move to tactical cover.

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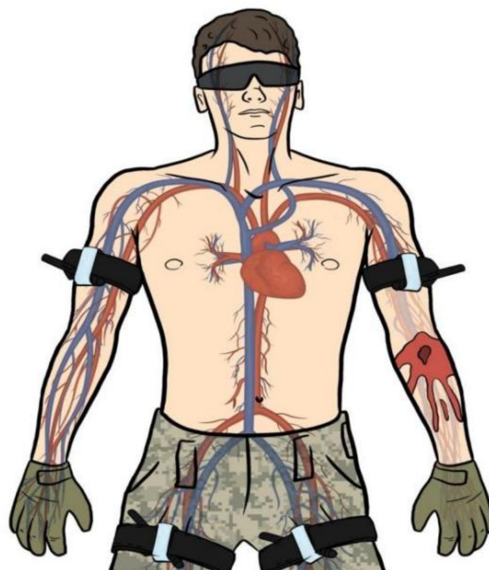

Figure 1.16 – High and tight tourniquet application locations during the aid-under-fire phase

Recommendations for providing Aid under fire:

return fire and take cover;

order or expect the victim to continue performing combat mission, if permissible;

use the “3D” rule (three Ds);

order the casualty to move to cover and provide self-help if possible, or, if the tactical situation permits, with the commander's permission, move or drag the casualty to cover;

try to avoid additional injuries to the victim and injuries;

In case of a burn: remove the victim from the burning vehicle or building and move them to an area of indirect danger. Then do everything possible to stop the burn on the victim.

Stop massive external bleeding, if the tactical situation permits, by doing the following:

instruct the victim to stop the bleeding on their own, if possible perhaps;

applying a mechanical tourniquet-type hemostatic device to the extremities to stop bleeding in areas that are anatomically accessible for their use,

Apply a limb tourniquet over clothing 2 to 3 inches above the wound. If the location of life-threatening bleeding is not obvious, place the tourniquet “high and tight” on the injured limb and move the casualty to cover.

Ensuring airway patency using available methods.

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IMPORTANT! *All other interventions are best postponed until the provision stage assistance in the indirect threat zone (Tactical Shelter Assistance stage).*

2.1. Basic safety rules when working at the Fire Aid stage

In the area of direct threat (Help under fire stage):

As part of self-help in a direct threat zone, the following actions should be taken:

If possible, continue the combat mission.

Report the injury/trauma to the immediate commander, request assistance – fire support (cover) and, if necessary, assistance from other military personnel, and follow the instructions of the immediate commander.

Stop massive external bleeding.

Move to tactical cover (adapted or unadapted) and/or protect yourself from further injury;

Within the framework of mutual aid at the stage of Assistance under fire:

First of all, you must ensure your own safety. If possible, continue the combat mission in order to establish fire advantage to avoid additional losses and injuries to existing casualties. Use the "3D" rule (report, assistance (cover), permission).

Determine priorities for providing assistance to victims

Extracting/moving victims from burning vehicles or buildings.

Stopping massive external bleeding under favorable tactical conditions.

If possible, order the victim to move to tactical shelter (adapted or unadapted) and protect themselves from additional injuries/trauma and provide self-help.

If the victim is unconscious or conscious but unable to move, a plan should be developed and implemented to rescue the victim (if tactically feasible).

Determine the level of risk to those providing assistance, consider your current preferences, and ensure that all personnel involved understand the plan for moving the casualty.

Basic safety rules when providing assistance to a victim under by fire:

Personal safety is priority #1. The casualty should help themselves if they can. Minimize time under fire – evacuation is more important than comprehensive medical care. help. Use smoke, cover, and fire support.

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Transfer/move the casualty to the next stage as soon as possible providing assistance.

These rules can save lives – both yours and those of your fellow human beings.

2.2. Action planning and safety rules when working in the direct zone threats (Help under fire stage)

Accomplishing a combat mission and providing assistance to a casualty may conflict with each other. Unplanned actions to rescue a casualty may be critical to completing the combat mission and cause additional losses among the unit's personnel.

A very important component is well-established communication between the unit's fighters and with the immediate commander, who has a more detailed understanding of the situation and can rationally make decisions about the unit's further actions.

IMPORTANT! *Even if the victim is your close friend and you want to provide assistance, remember that impulsive actions can lead to a situation where, while providing assistance, you yourself will be injured and assistance will have to be provided by two people. Therefore, assistance must be provided on the order of the commander, who will assess the situation and organize cover for the rescuer.*

Action plan for providing assistance and removing the victim (in case of impossibility of self-help and independent exit of the victim from the zone of direct enemy fire).

Figure 2.1 – Distribution of tasks: who covers, order of advancement, who provides assistance.

Before advancing, try to establish contact with the victim, determine his condition, and give the command to apply a tourniquet (if necessary) yourself and move to cover (if the situation allows) or open fire on the enemy.

If the casualty is unresponsive or requires assistance from another person, use the “3D” rule (three Ds: report, assistance (cover), permission): inform the immediate commander (or senior in rank) about the presence of casualties and their number; request assistance – fire support

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(cover) and assistance from other servicemen or junior medical personnel. If the casualty is at a distance, begin a set of actions to provide tactical pre-hospital care only after permission from the commander

Obtain information on possible forces and means that can be used, an action plan and permission to rescue the victim. Communicate with the victim and inform that the rescuer (unit fighters) are moving towards him (the victim may be in a state of stress and open fire on the unit fighters) and order the victim to put down his weapon. In case of altered consciousness or inability to establish voice contact with the victim in advance (but minimal movement of the victim can be visually assessed), when approaching (crawling) it is necessary to disarm the victim (if the victim is unconscious).

Visually inspect for bleeding and apply a tourniquet if blood is found on items or clothing (under fire - the tourniquet is applied as high as possible on the injured limb over clothing). The tourniquet is not applied over the joint area, as well as over filled pockets of tactical clothing, over a holster, pouch, etc.

REMEMBER! *If the victim does not answer the questions, it should be determined whether it is advisable to help this serviceman at all. Priority is given to conscious victims. Unconscious victims may have injuries incompatible with life, so the risk to the life and health of the servicemen who will provide assistance may be unjustified.*

2.3. Signs of massive bleeding.

IMPORTANT! *The main causes of death of 80-90% of victims were hemorrhagic shock (massive blood loss) and hypovolemic shock (critical loss of body fluid), which could have been avoided.*

Massive external bleeding is an emergency condition that is accompanied by significant loss of a large volume of blood in a short period of time from wounds (including traumatic amputations) regardless of the mechanism of injury.

Signs of massive external bleeding:

1. A rapidly growing pool of blood near the victim
3. Intense blood soaking into the victim's clothing or the bandage in the area Rani
2. Pulsating nature of bleeding and constant blood oozing from the wound
4. Complete or partial traumatic amputation of a limb

IMPORTANT! *Possible places where major vessels are located close together and which require additional attention (regarding the detection of massive bleeding): neck, armpits, groin, genitals, inner side of the limbs, popliteal fossa, ankle area (Achilles).*

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Figure 2.2: Signs of massive bleeding

2.4 Mechanical tourniquet type hemostatic device

A mechanical tourniquet (hereinafter referred to as a tourniquet) is the temporary method of first choice for stopping life-threatening massive bleeding during the First Aid phase. A tourniquet stops blood flow in the limb
below the application site - it is the best way to temporarily stop massive bleeding.

If the casualty is bleeding heavily from a limb during the Aid Under Fire phase, apply a tourniquet immediately. Forget about direct pressure on the wound, tight packing or anything else. Apply a tourniquet without delay if there are signs of massive bleeding from the limb.

In the area under fire, the tourniquet is applied as high and tight as possible and should be immediately reassessed (if the situation allows) at the next stages of providing care (assess whether a tourniquet is needed at all and replace it with other methods of bleeding control if there are no contraindications to this).

IMPORTANT! *A tourniquet is a temporary (forced) method of stopping bleeding from the extremities and should be immediately re-evaluated at the next stages of providing assistance. An under-evaluated tourniquet greatly increases the chance of leaving you or a fellow human being, in the event of injury, without a limb that could have been save*

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The victim and rescuer are at significant risk when applying a tourniquet. The risk of additional injury to the victim and rescuer must be weighed against the victim's existing bleeding. Apply the tourniquet over clothing without removing anything, but make sure that the victim's clothing pockets are empty for effective tourniquet application.

Make sure it is exactly above the bleeding point! If you are not sure where the main bleeding point is, as may be the case when performing night duties or in the case of multiple injuries, apply the tourniquet high and tight, as high up on the arm or leg as possible. Tighten the tourniquet until the bleeding stops.

Military personnel who apply a tourniquet for the first time often allow
There are many mistakes. Unfortunately, these lessons they have learned are written in blood.

Figure 2.3 – Example of an ineffectively applied turnstile, namely
The first tension of the turnstile was poorly done.

The turnstile should be located in a quick access area, in the same place for all soldiers in the unit.

The tourniquet should not be exposed to the environment for a long time. Carry the tourniquet in a special pouch. Otherwise, the tourniquet should be replaced regularly.

In the case of mutual aid, the victim's tourniquet should be used.
It is not recommended to provide assistance with your own tourniquet.

It is necessary to tighten the turnstile sling tightly before tightening the handle.

Yes, effective overlay is painful, and does not necessarily indicate an error
when applied, and especially does not mean that you need to remove it!

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IMPORTANT! *Do not loosen a tourniquet to restore blood flow to the injured limb. Doing so could kill the victim. The best method to restore blood flow to the injured limb is to replace it with other methods of bleeding control.*

Quickly apply one or more tourniquets (high and tight) to an arm or leg to stop life-threatening critical bleeding. This should be done within 1 minute. If the victim is conscious, you can instruct them to administer first aid and apply a tourniquet.

When providing self-help to a victim with bleeding from the forearm/shoulder, the ability to apply a tourniquet with one hand may be necessary. Tourniquets are typically designed as a folded loop, which is convenient for quick one-handed application.

If the first tourniquet is not enough to stop the bleeding, apply another tourniquet immediately above the first one. Do not apply the tourniquet to the knee or elbow, or to a holster or trouser (coat) pocket that contains objects.

After each tourniquet application, observe the casualty closely to ensure that the tourniquet remains tight and bleeding remains controlled.

REMEMBER! *When performing a combat mission, avoid carrying objects in the side pockets (on the sleeves) of the tunic (fleece, jacket, etc.) and upper pockets of the trousers. If necessary, apply a tourniquet, this saves valuable time and allows you to apply the tourniquet effectively.*

Sequence of applying a tourniquet to the arm, self-help:

Check the pockets on the injured limb for objects that may interfere with effective tourniquet application (remove Velcro patches if they interfere with tourniquet application);

pull the tourniquet out of the pouch or AMZI;

unfold the turnstile so that a loop is formed;

Apply the tourniquet so that the injured limb is inside the tourniquet loop and make sure that the tourniquet strap (sling) is not twisted on the limb;

place the tourniquet as high as possible on the injured limb;

tighten the turnstile strap as much as possible without leaving any slack - fingers should not pass between the tourniquet strap and the limb;

secure the Velcro strap around the limb to the C-shaped retainer;

tighten the tourniquet until the bleeding stops;

fix the handle using the C-shaped clamp;

pass the free end of the tape between the clamp brackets;

secure the turnstile handle and strap under the securing tape;

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- write the time on the tape, or remember the time the turnstile was applied, so make a record of the next phase of assistance.

The tourniquet can be applied to the lower limbs by yourself with two hands. It is also possible for a rescuer to apply it to any limb (if it is impossible to apply it independently). **The sequence of applying the tourniquet to the leg, self-help:**

check the pockets on the injured limb for objects that may interfere with effective tourniquet application;

remove the tourniquet from the pouch or from the AMZI;

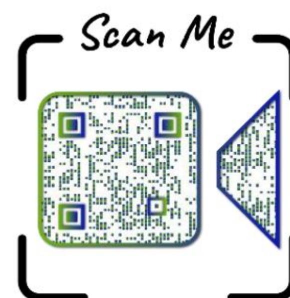
fully expand it;

wrap the tourniquet around the injured limb, placing it as high as possible on the limb;

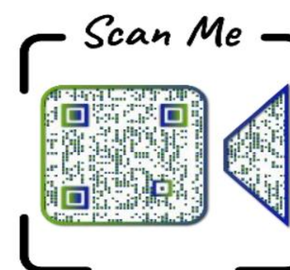
insert the end of the strap into the buckle hole and tighten the tourniquet strap tightly, leaving no gaps – the tips of three fingers should not pass between the tourniquet strap and the limb;

secure the Velcro strap around the limb to the C-shaped clamp;

Turn the turnstile knob until it stops. the bleeding will stop.



Video material 2.1: Sequence of applying a tourniquet to an arm and leg, self-help



Video material 2.2: Sequence of applying a tourniquet to an arm and leg, self-help

The rescuer communicates with the victim with a direct instruction: “Put a tourniquet on yourself!”

If the victim is unable to apply a tourniquet on their own, the rescuer reports the situation to the unit commander. Only after the commander gives permission to provide assistance can the rescuer advance to the victim.

Figure 2.4 – Approaching the casualty with a reduced profile

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Sequence of applying a tourniquet, mutual aid:

Having approached the victim, the rescuer positions himself and the victim so as to hide his profile behind the victim's armor, relative to the direction of enemy fire (forming the letter "T");

takes out the victim's tourniquet;

conducts a quick examination of the victim for massive bleeding;

turns it over so that it is more convenient to provide assistance and hide behind its armor;

pulls the injured limb as close to him as possible;

checks the victim's pockets for foreign objects;

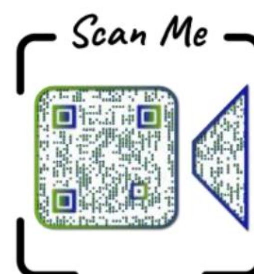
opens the turnstile and applies it as high and tight as possible;

the rescuer records the time of applying the tourniquet and/or remembers the time of its application imposition;

the rescuer requests permission from the unit commander to move the victim to shelter;

if permission is received from the commander, the victim is moved to shelter;

The rescuer places the victim in a stable lateral position. position in the event that the possibility of moving to shelter is postponed and there is a danger that the victim will lose consciousness.



Video material 2.3: Mutual aid to a victim under enemy fire

2.5 Alternative methods for temporarily stopping bleeding

IMPORTANT! *Alternative methods of temporarily stopping bleeding are used in a critical situation when it is impossible to apply a tourniquet with AMZI due to its absence or due to the anatomical location of the wound.*

1. Direct pressure on the wound

If necessary, direct pressure is an available method. This can be done using sterile gauze, cloth, or any other material available, if available. The pressure should be applied as quickly as possible and should not be reduced until help arrives.

2. Indirect pressure on the connecting (nodal) areas of the body

In case of bleeding from the lower limb, temporary stopping of bleeding can be achieved by applying an additional pressure element to the inguinal fold, bending the limb at the hip joint, and then fixing it with the weight of the victim's body until help arrives.

In case of bleeding from the upper limb, temporary stopping of bleeding can be done performed by pressing the brachial artery against the humerus or

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use an additional pressure element in the armpit area and fix it with the victim's body until help arrives.

3. Using a makeshift turnstile

To temporarily stop bleeding and wait until it is possible to apply a tourniquet with AMZI, an improvised tourniquet should meet the following requirements: criteria:

Strong and inelastic material (width not less than 4 cm)

Strong twist (lever) to create sufficient pressure (plastic, wood break) Reliable fixation

after tightening Alternative methods

of stopping bleeding are necessary in cases where standard (worksheet) means are not available. The main thing is to act quickly and effectively, using available resources, to minimize blood loss and save the victim's life.

IMPORTANT! *The use of alternative methods to temporarily stop bleeding is a forced measure and should be replaced by others by staff means at the first opportunity.*

2.6 Turning an unconscious victim to the side position

When moving the victim from the area of direct threat (the stage of Assistance under fire) is impossible or it is necessary to continue the combat mission - all attempts to save him may be leveled by the soldier's position Prone (lying on your back facing the sky). Airway obstruction is the second most preventable cause of death on the battlefield after massive bleeding.

If the victim is conscious and talking to you, this means that his airway is clear.

If the victim is unconscious or at risk of losing consciousness, their airway may show signs of obstruction.
i.e.: no breathing, wheezing, gurgling, sounds similar to snoring or barely noticeable breathing. Blockage of the airways can occur due to the presence of: foreign bodies, broken teeth, vomiting, as well as burns or swelling of the tissues.

Also, in an unconscious victim, due to loss of muscle tone, the root of the tongue should be suspected to have fallen in - this can lead to it blocking the airway by covering the tracheal lumen.

To ensure airway patency in an unconscious victim or one who is at risk of losing consciousness, it is worth applying the method of turning the victim into a side position.

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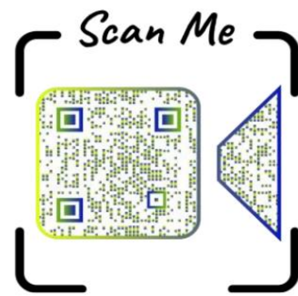
In the side position, the risk of choking on vomit or blood is significantly lower than in the prone position (lying on the back and facing the sky).

If necessary and in the absence of massive bleeding, taking into account the tactical situation, the victim can be left in a side position, as this will allow him to wait for the next evacuation.



Video materials 2.4: Stable lateral position

2.7 Methods of moving a casualty to shelter alone or in as part of a group with the use of additional equipment and without

Moving the casualty to the indirect threat zone (the Tactical Shelter Assistance stage) is an important component of the system of measures for providing tactical pre-hospital care on the battlefield. One of the key aspects of providing assistance to casualty in tactical conditions is preventing the appearance of new casualties. The casualty is moved in accordance with the rescue plan with full compliance with the commands.

Developing a plan to rescue the victim during the Fire Assistance phase should come first, even when the victim is in dire need of assistance help.

After receiving permission from the commander to move the victims from the shelling zone to the tactical shelter zone, it is necessary to determine number of rescuers and number of fighters from the fire cover group. Plan the routes of approach and departure in advance, determine the most dangerous directions. Plan and distribute among the evacuation group places in the shelling zone that can be used as temporary protection when the tactical situation changes. Check personal weapons, personal protective equipment and necessary additional equipment of all members of the evacuation group. Remind all fighters of the evacuation group of the methods of maintaining communication and the procedure for working in the area of damage (direct threat). You

should try to establish voice contact with the victim in order to:

identify yourself as a sibling;

to psychologically support and reassure him;

clarify whether there are injuries (blood);

give instructions to provide self-help (stop external massive bleeding using available methods);

direct him to move independently to tactical cover.

In the event that the victim is helpless and an evacuation team has come to his aid, voice communication with him is maintained constantly.

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up to the moment of contact. Such actions are aimed at reducing the risk of combat injury for all fighters during the transfer of the casualty.

IMPORTANT! *All planning for casualty movement is conducted according to your unit's standard operating procedures.*

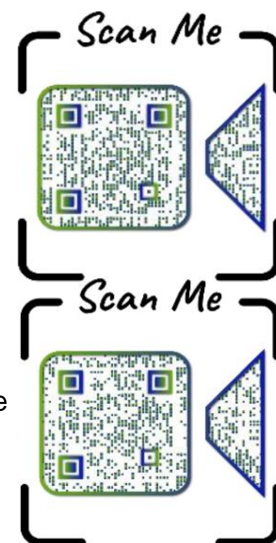
Carrying and dragging the victim will allow rescuers to do this as quickly as possible, without causing further harm to the victim (if possible). It should be noted that at this stage of providing assistance, tactical conditions do not allow for a focus on measures to prevent spinal injuries during the transfer of the victim.

Depending on the level of consciousness of the casualty, the threat from the enemy, the terrain conditions, or other considerations, a variety of casualty transfer options can be used. Each has both advantages and potential disadvantages.

REMEMBER! *The choice of movement method will depend on the tactical conditions, the degree of threat to the rescuers, the number of rescuers and the coordination of their actions.*

Dragging the victim using equipment or with hands

Although this sequence of actions allows you to move the victim to shelter or a safe place, it is not suitable for longer distances and increases the chance of causing additional damage to the victim's health. This method can be used if enemy fire does not allow transporting the victim in another way. During transportation, both the rescuer and the victim may suffer additional injuries. Always remember the danger.



Video materials 2.5, 2.6: Methods of dragging by the armor protection, one-person and two-person. Dragging the victim by one person with two hands from by grabbing by the armpits.

Hold the casualty by their equipment or by their arms. If you choose to drag the casualty by their body armor, grab the body armor straps as close to the front plate as possible to avoid strangulation (the body armor plate is above the lower part of the casualty's face and does not compress the neck).

Kneel behind the head of the victim who is lying on his back. Sit the victim down, hiding behind him. Pass your left hand under the victim's left armpit. Grasp the victim's left forearm in the upper third (near the elbow joint) with your left hand. The right

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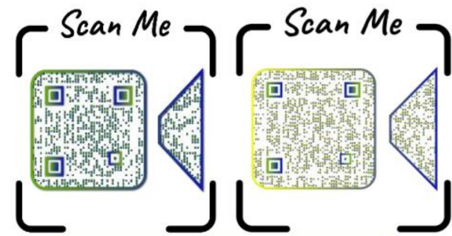
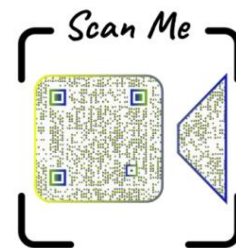
Pass your hand under the victim's right armpit. With your right hand, grab the victim's left forearm in the lower third (the area of the wrist joint, or the place where the watch is worn) from above. Stand up with the victim on half-bent legs. The victim's feet touch the ground only with their heels.

Evacuate the victim by moving his back forward. If the left arm is injured, the right arm is grabbed in mirror image.



Video materials 2.5, 2.6:
Methods of dragging by armor protection alone and in pairs
Dragging the victim with one person using two hands from by grabbing by the armpits.

This technique can be used to move victims. For the convenience of rescuers, you can use grabbing the victim by the belt or pants. This method of carrying the victim may involve turning and moving in the opposite direction, so communication between rescuers is important, which must be carried out in advance (before the rescuers leave the shelter). When preparing to move the victim, one of the rescuers steps forward and, in the conditions of a tactical situation, covers the victim and the other rescuer with fire from a personal weapon.



Video materials 2.9:
Two-person tug-of-war method

2.8 Basic principles of extricating a victim from a vehicle vehicle (combat vehicle, car, etc.)

To provide first aid to a victim in an armored vehicle (tank, infantry fighting vehicle, armored personnel carrier), he must be removed from there. The small size of the fighting compartments, the need to change the position of devices and mechanisms, and the difficulty of approaching the victims sharply complicate the provision of medical assistance inside the vehicle. Therefore, it is provided there by the crew or medical workers only in cases that cannot be delayed (life-threatening blood loss, asphyxiation, clothing ignition).

Methods of extracting casualties depend on the design features of the equipment, the degree of its damage, the conditions of the combat situation and the condition of the casualty. For the boarding of crew members and landing forces, their exit, as well as for the extraction of casualties, combat vehicles have appropriate hatches and doors.

The tank has four such hatches. The hatches of the tank commander and gunner are located on top of the turret (the first one is on the right, the second one is on the left) and can be opened both from the inside and outside; the driver's hatch is located in the middle part of the vehicle's hull (in front of the turret); the emergency exit hatch is behind

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driver's seat in the bottom of the hull. Both of them open only from the inside. The infantry fighting vehicle has three hatches

for the crew (commander, driver and gunner-operator), four landing hatches and aft doors. The driver's hatch, as in a tank, is located in the front of the hull (in front of the turret), the commander's hatch is located behind it, the gunner's hatch is

in the turret. The gunner-operator can also be approached through the right troop compartment. The troop compartment hatches are mounted behind the turret, in the rear of the vehicle. The rear of the BMP ends with two aft doors.
The driver's hatch of the BMP opens only from inside the vehicle, other hatches and the stern door - both from the inside and outside.

The BTR-80 armored personnel carrier is equipped with hatches for the commander and driver (in front of the turret, parallel to each other), as well as side hatches. The first two open from the outside. In order to enter the combat vehicle or help extract a victim from it, the person providing assistance must give the crew a pre-set signal. Such a signal can be tapping an iron object (for example, a small sapper shovel) on the vehicle body or a command transmitted via communication. Having established interaction, the person providing assistance with the help of the crew (paratroopers) opens (with a special key) the designated hatch of the vehicle and enters it. To make this easier, you need to take off your medical bag and lower it into the hatch; if the situation allows, you can do the same with a gas mask. It is more convenient to climb into the vehicle and work in it without outerwear.

3. Providing assistance to victims in the indirect threat zone (stage Tactical cover assistance)

3.1 Basic safety rules when working at the Tactical Shelter Assistance stage

IMPORTANT! *At this stage, tactical pre-hospital care is provided in tactical shelter, that is, in an existing adapted or unadapted shelter, which creates some protection from the direct impact of available enemy weapons and allows you to avoid additional injuries/ traumas.*

This stage of assistance differs from the previous one in that assistance is provided to victims when there is no immediate threat to the life of the person providing assistance. Therefore, threats must be eliminated and the place of assistance must be relatively safe.

When organizing protection, the commander specifies the procedure for conducting surveillance of the area, appoints an observer, indicates his location and tasks, and also establishes the procedure for personnel in the event of a sudden enemy attack. In the defense of the collection point for casualties and when deployed on

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In addition, the commander determines the required number of firepower and patrol units on duty, their locations and tasks.

To assist in tactical cover, certain steps should be taken: standard operating procedures:

Provide camouflage and perimeter security:

- the unit must always control the tactical situation to protect against additional losses;
- those providing assistance must be prepared to move quickly victims if necessary.

Disarm the victims and control their means of communication:

- if this was not done in the previous stages, and to control their means of communication:
- Disarming victims is necessary for the safety of those providing assistance and the victims themselves;
- control of communication means is necessary for the safety of the entire unit;
- Weapons and communication devices should not be accessible to victims who are in a state of shock, under the influence of mind-altering drugs, or in the event of a head injury.

Conduct triage of victims as needed:

- First of all, assistance should be provided to victims with massive injuries. bleeding.

Ensure the biological safety of those providing assistance – use gloves to avoid transmission of infectious diseases when in contact with the victim's blood.

Communication plays an important role:

- communicate with the victim, reassure him, encourage him, explain each action to provide assistance;
- communicate with medics and other rescuers regarding the victim's condition, movement, and the extent of assistance provided;
- inform the command about the presence of casualties in the unit and about the need for their evacuation.

3.2 Priority of assistance in the presence of multiple victims

When moving victims between stages of tactical pre-hospital care, the triage principle is used to prioritize the care of victims according to their injuries/injuries.

The very first triage is called “screening”, which occurs at the first contact of the casualty with the rescuer during the Assist in Tactical Shelter phase. The purpose of this triage is to identify the casualties who require immediate assistance and will subsequently be prioritized for evacuation. This is determined by examining the casualties according to the MARCH algorithm, namely,

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considering the first two letters "M" (massive bleeding) and "A" (patency airways) distinguish urgent and delayed victims. During the "screening" two additional categories are distinguished: "Hopeless" (or deceased) and separately mildly injured (who can help when working with other wounded).

According to the need for assistance, four types of victims are distinguished: categories:

- Urgent – "red" (massive, life-threatening bleeding; neck or pelvic injuries with signs of shock; unstoppable bleeding; threat of limb loss; multiple limb amputations; airway obstruction; tension pneumothorax, etc.);

- Delayed – "yellow" (soft tissue injuries without massive bleeding; facial injuries/ traumas without airway obstruction; trunk injuries without signs of shock; fractures, etc.);
- Light – "green" (relatively uncomplicated injuries: soft tissue injuries, cuts, small bone fractures, minor burns, etc.);
- "Hopeless" or dead – "black" (unstoppable massive bleeding leading to shock; persons without consciousness and signs of life regardless of the mechanism of injury; severe head injuries/injuries).

When victims are found with unexploded ordnance in their bodies, they isolate and provide assistance after they are demined by a sapper group.

Civilians receive aid after helping their military personnel.

Unidentified or undocumented casualties are triaged and treated as if they were our own, but after friendly forces have been identified, and they should be kept under close surveillance.

Prisoners are held in custody and receive treatment last. remaining resources.

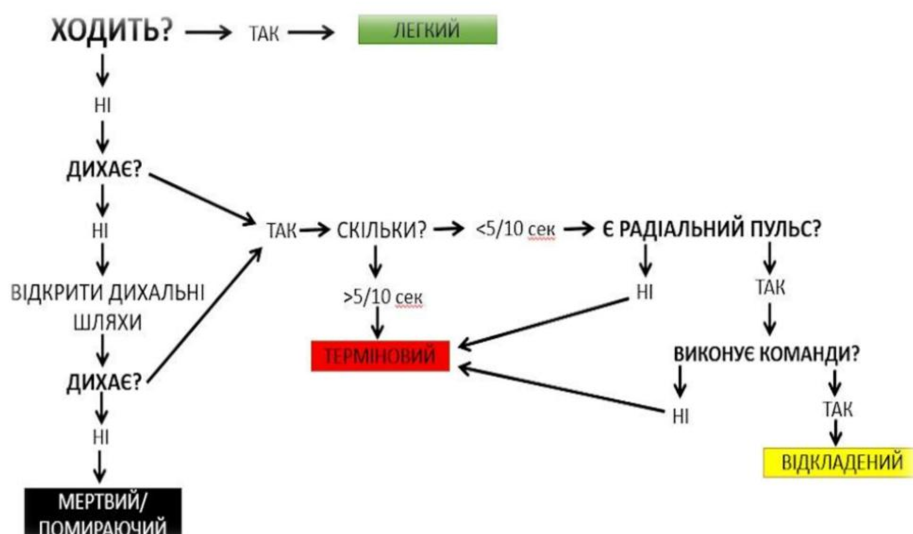

Figure 3.1 – Example of primary sorting

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3.3 Algorithm for conducting a MARCH review

The MARCH algorithm is a clearly defined sequence of actions by priority of execution, aimed at eliminating conditions (complications of wounds or injuries) that directly threaten the victim's life, with subsequent preparation for evacuation.

Complete trauma examination of the victim and provision of further assistance are carried out according to the MARCH algorithm, where:

M (Massive bleeding): detect and stop external massive bleeding (self-help or mutual help); assess the state of consciousness by establishing contact; begin initial examination.

A (Airway): re-assess the state of consciousness through communication with the victim; identify airway obstruction and provide appropriate tactical pre-hospital care; continue the initial examination.

R (Respiration) : Reassess consciousness; identify respiratory distress and provide appropriate care for penetrating or blunt chest trauma (compress and decompress chest as necessary)

C (Circulation) : re-assessment of consciousness; assessment effectiveness of methods for stopping bleeding; assessment of blood circulation/ shock; prevention of the development of shock; conversion or “relocation” of tourniquets, if appropriate; re-examination for other injuries/traumas.

H (Hypothermia / Head injury): re-assessment of the state of consciousness; assistance with eye injuries, burns; assistance with suspected head, neck, pelvis, spine injuries and with existing fractures; re-assessment of the victim's condition according to the MARCH algorithm; prevention of hypothermia (hypothermia); preparation of the victim for evacuation. (including filling out the "Victim Card").

The MARCH sequence is structured around the prioritization of potentially life-threatening injuries/injuries. The order of approach is also outlined in this sequence, starting with massive bleeding. Whenever during the assessment you identify the need for tactical pre-hospital care, pause the assessment to complete the care, then resume the assessment from where you left off. A rapid re-assessment and re-evaluation of the care provided is mandatory if care has been interrupted due to tactical circumstances.

MARCH is not just an acronym for an algorithm, it is a priority of care, with M always being the most important letter. If at any point there is uncontrolled massive bleeding, return to M.

3.4 Examination of the victim for massive bleeding

The first step in providing tactical cover is to identify unrecognized life-threatening massive bleeding and stop it by any means (from all possible sources). If the victim has unstoppable massive bleeding, everything should be done to stop it immediately.

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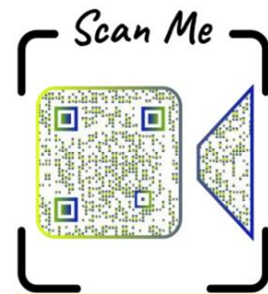
The casualty should be examined for other injuries and bleeding not previously identified. All life-threatening bleeding should be stopped. The examination should begin with the extremities, particularly the limb that shows signs of massive bleeding or that already has a tourniquet. The casualty's clothing and shoes should be cut or removed to directly see the injury, and then steps should be taken to stop the bleeding. The extremities should be examined completely (including the shoes).

The nodal areas (base of the neck, armpits, groin, perineum, buttocks) should also be examined for possible injuries.



Video material 3.1:

Examination of the victim for the presence of massive bleeding

3.5 Method of temporary stopping of bleeding using direct and indirect pressure

1. Direct pressure on the wound

Prior to intervention (particularly tourniquet application), initial direct pressure on the bleeding site (wound) may be applied as a temporary method of stopping bleeding (Figure 3.2).

Direct pressure is direct pressure on the bleeding site, used when necessary as a temporary means of stopping bleeding until a tourniquet or bandage can be applied, or if previously used means of stopping bleeding have ceased to be effective and new means of stopping bleeding are initiated.

Use a sterile gauze pad, cloth, or any other material available to do this. Apply pressure as quickly as possible and do not reduce it until help arrives.

Figure 3.2 – Initial direct pressure on the wound

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2. Indirect pressure on the connecting (nodal) areas of the body

In case of bleeding from the lower limb, temporary stopping of bleeding can be achieved by applying an additional pressure element to the inguinal fold, bending the limb at the hip joint, and then fixing it with the weight of the victim's body until help arrives.

In case of bleeding from the upper limb, temporary stopping of bleeding can be achieved by pressing the brachial artery against the humerus or by using an additional pressure element in the armpit area and fixing it with the victim's body until help arrives.

In AMZI, there are four tools that can be used to stop bleeding:

1. Turnstile.
2. Tampon bandage hemostatic with chemical substance hemostatic
3. Pressed gauze bandage.
4. Elastic bandage with absorbent and compression elements

3.6 Algorithm for working with the turnstile at the stage of Assistance in tactical shelter

The tourniquet at this stage of providing assistance is applied directly to the victim's skin. (For comparison: at the stage of providing *Assistance under fire* the tourniquet is applied *to* the victim's clothing).

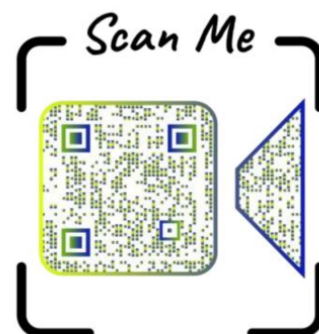
To control massive bleeding from a limb, a tourniquet is applied 5-8 centimeters above the wound. (For comparison: during the stage of providing Aid under fire, a tourniquet is usually applied *as high as possible* on the limb.)

If the bleeding is not stopped by applying the first tourniquet, a second tourniquet should be applied next to the first (Figure 3.3).

After applying the tourniquet, it is imperative to check its effectiveness:

- make sure that the bleeding from the wound has stopped;
- check the pulse below the wound (closer to the hand/foot) on the arm or leg to make sure there is no pulse (Figure 3.4).

Figure 3.3 – Placing a second turnstile next to the first in case of its ineffectiveness.



Video material 3.2: *Checking the effectiveness of the turnstile*

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Figure 3.4 – Checking the distal pulse on the leg after applying a tourniquet

Рисунок 3.5 – Запишіть час накладання турнікету

A tourniquet cuts off the blood supply to the part of the limb below the point of application. This is the best method of stopping bleeding from an arm or leg. If the tourniquet is applied correctly, the victim will feel pain because the tourniquet must apply enough pressure to cut off blood flow to the limb. The effectiveness of tourniquets applied
during the First Aid phase is
fire, must be re-evaluated during the Tactical Cover Assistance phase.
If necessary, during the stage of providing assistance in tactical shelter, the tourniquet is re-applied 5-8 centimeters above the wound. This tourniquet is called "intended" (aimed) because it is applied more accurately.

A tourniquet does not harm the limb for the first two hours. After 2 hours of applying the tourniquet, the limb may be lost.
Over time, the tension of the tourniquet may loosen, so each applied tourniquet must be carefully monitored!

3.7 Hemostatic bandages. Stopping bleeding by tamponade with fixation

Depending on the type and location of the wound, the victim may need to have the wound packed and a pressure dressing applied. This involves using hemostatic dressings that contain a special chemical that enhances blood clotting.

A hemostatic bandage can be used to stop bleeding from nodal sites that can be stopped by direct pressure. Nodal sites are located at the junction of the limbs and neck with the trunk, where large blood vessels are located. The blood vessels in nodal sites are larger than those in the limbs, but are still susceptible to external compression by direct pressure (Figure 3.6).

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Figure 3.6 – Example of a wound to the nodal area of the groin area and direct pressure applied to the wound.

Nodal bleeding can also occur from a limb if the wound is located too close to the trunk, making a tourniquet impossible to apply.

A hemostatic bandage must be used in combination with a pressure bandage or other pressure-applying element.

Wounds in the chest, abdomen, and pelvis, as well as the cranial cavity, eyes, and natural openings, should not be packed.

IMPORTANT! *Women's tampons are not used for wound packing. sanitary tampons.*

What wounds can be packed?

These are primarily wounds with bleeding that can be stopped by direct pressure. The wounds themselves are usually located in areas where a limb tourniquet cannot be applied (Figure 3.7), namely:

base of the neck (1);
armpit areas (2);
smell (3);
crotch (4);
buttocks (5).
limb wounds, if time and tactical situation allow

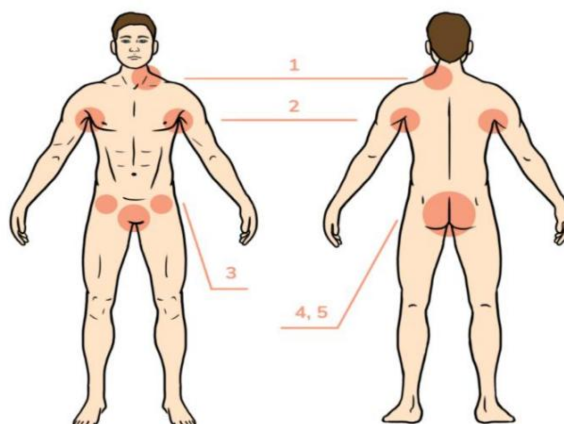


Figure 3.7 – Location of the main nodal zones on the human body

Wound packing procedure:

cut the victim's clothing near the bleeding site;

Identify the exact source of bleeding and apply direct pressure as a temporary means of stopping the bleeding until a hemostatic bandage can be placed on the wound.

insert your index finger into the wound and find the damaged vessel;

press the vessel to the bone;

remove and open the package with the hemostatic bandage;

form a ball with a diameter of 1-2 cm from the material;

insert the ball into the wound and press it against the area of the most pronounced pulsation bleeding;

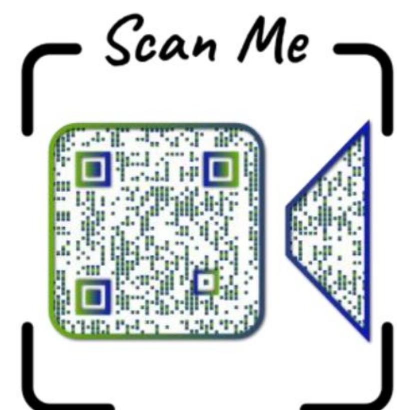
Pack the wound, maintaining constant pressure on the source of bleeding (Figure 3.8);

Make sure the packing material reaches the bottom of the wound and tightly fills all "voids" and wound channels. This is to provide the pressure needed to stop the bleeding. Use additional packing material if necessary.

Figure 3.8 – Wound packing while maintaining direct pressure.

Once the wound cavity is tightly packed with packing material, leave a portion of the material (2.5-5 cm in diameter) directly over the wound and continue to maintain direct pressure on the wound (additional packing material may also be used if necessary).

Direct pressure should be maintained for at least 3 minutes. This is a mandatory requirement even if a hemostatic bandage with an active chemical component is used. If a bandage without an active chemical element is used, maintain pressure for at least 3 minutes (Figure 3.9).



Video material 3.4: *Performing tamponade in the groin area*

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Figure 3.9 – Applying direct pressure after wound packing

Before you release the pressure and apply a pressure bandage, gently lift your hand above the edge of the wound and check if the bleeding has stopped. If so, you can proceed to the next stage - applying a pressure bandage. If the wound continues to bleed, you need to re-pack (or add more) the wound with a new bandage, filling all the previously missed spaces. You should carefully observe the wound to determine if it has

The bleeding has finally stopped.

3.8 Applying a pressure bandage (including on the neck, armpit, groin)

Once you are sure that the bleeding has stopped, you should apply a pressure bandage to the wound.

Prepare a sterile dressing pad and place it directly over a hemostatic bandage or open wound (Figure 3.10).

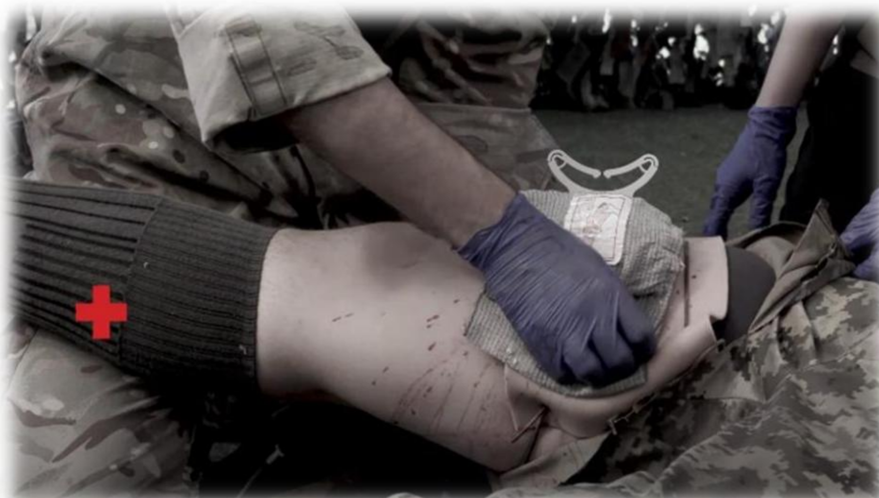

Figure 3.10 – Initial stage of applying a pressure bandage

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Wrap the bandage around the injured limb. If there is a plastic pressure piece, pass the bandage through it (Figure 3.11). Remember to keep pressure on the wound as you apply the bandage.

Figure 3.11 – Using a plastic element for pressure during applying a bandage.

After passing the bandage through the pressure element, reverse the direction of the bandage wrapping (Figure 3.12) to provide additional pressure.

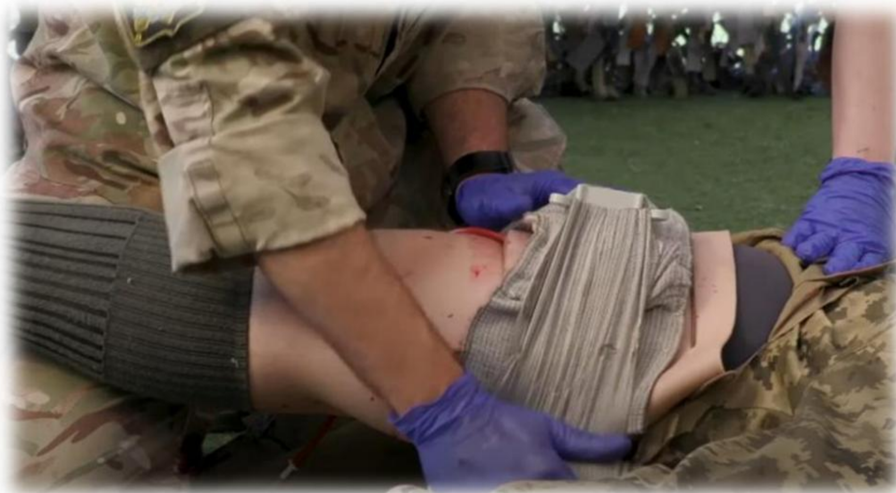

Figure 3.12 – Using a pressure element during dressing application.

Make short pulls on the bandage. Fully stretch and straighten bandage so that it doesn't turn into a makeshift tourniquet.

Try to maintain the position of the hemostatic bandage in the packed wound when applying the dressing.

Continue wrapping the bandage around the limb in the opposite direction from the original. Wrap the bandage tightly around the pressure element.

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Figure 3.13 – Completing the application of the pressure bandage

Continue wrapping the bandage around the limb, covering all edges of the hemostatic bandage. Secure the edges of the retainer to one of the wraps of the bandage. (Figure 3.13).

The bandage is not applied correctly:

if the skin below the pressure bandage becomes cold to the touch or turns blue; if the victim complains of numbness in the limb;

if the pulse below the applied bandage is no longer felt (provided when it was present before the dressing) (Figure 3.14).

Figure 3.14 – Checking the pulse distally (below) the bandage

If blood circulation in the limb is significantly reduced or stopped, loosen and reapply the bandage. If the victim has lost a lot of blood and is in a state of shock, do not perform this manipulation yourself, immediately notify the doctors and wait for their help or the evacuation team.

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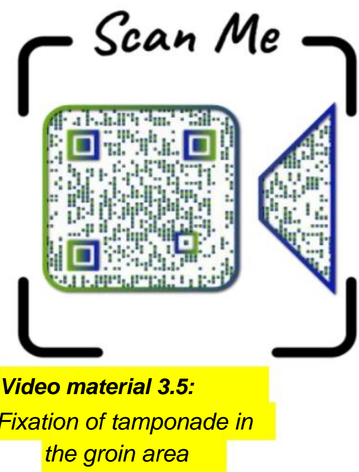
The condition of the hemostatic bandage and the wound itself must be assessed EVERY TIME the casualty is moved.

IMPORTANT! *All applied tourniquets, tamponades and bandages must be constantly re-evaluated!*



Video material 3.5: *Fixation of tamponade in the groin area*

3.9 Assessing and maintaining airway patency in victims

In consciousness

Unfasten the victim's helmet strap, first inspecting the helmet for splinters or other damage that may indicate skull injury. If possible, remove the victim's helmet. It is necessary to ensure that the victim's airway is clear.

Unconscious

If the victim is unconscious and lying on his back, it is necessary to check whether he is breathing:

lean your ear towards his nose and your cheek towards his mouth;

Watch the movements of the victim's chest and abdomen with your eyes;

Look for chest movement, listen for air escaping during exhalation, and feel the air flow on your cheek ("hear-see-feel") (Figure 3.15).

If the casualty is unconscious but breathing, place them in the recovery position (see below), except if there is a suspicion of neck, pelvic or spinal injury.

If the victim is unconscious and not breathing, check the airway, remove any foreign bodies from the airway, and perform a jaw thrust maneuver if necessary. To do this, stand next to the victim's head. The victim should be lying on a hard, flat surface in the supine position, if possible.

Signs of airway obstruction:

severe facial injury;

the presence of blood or foreign bodies in the respiratory tract;

the victim, while conscious, shows that he cannot breathe;

The victim makes sounds like wheezing, snoring, or gurgling.

If the victim is conscious and talking to you, it means that their airway is clear.

However, the victim may have difficulty breathing!

Victims with significant facial injuries can often clear their airways by sitting up and leaning forward.

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In this case, help the conscious victim to take any comfortable body position that allows him to breathe easily and freely, for example, sitting.

The oropharynx is checked for blood.

3.10 Techniques for manual airway patency

To manually restore airway patency, perform the following steps:

The rescuer is placed behind the victim's head.

Open the victim's mouth and examine him. The mouth should be opened by applying gentle pressure with the thumbs on the victim's lower jaw (Figure 3.16).

Figure 3.16 – Head extension and chin thrust victim

If you see a foreign body in the victim's airway, you can try to remove it. Do not put your fingers into the victim's mouth in an attempt to remove a foreign body that you cannot see, as this may cause airway obstruction! Do not perform finger cleaning of the victim's mouth blindly! If the victim is not breathing after the airway is cleared, or if the airway

is not blocked by a foreign body, swelling or burns, but there is no breathing, you should suspect tongue thrust in the victim:

The tongue of an unconscious victim may lose muscle tone;

This can cause it to block the airway; by getting into the back of the mouth and covering the opening of the trachea;

In such cases, the victim may make sounds similar to snoring, wheezing, or gurgling.

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If the root of the tongue is retracted, the victim's head should be straightened (if there is no suspicion of a neck injury) and a chin-thrust maneuver should be performed to restore airway patency.

To extend the victim's head and bring out their chin you need to act as follows:

Kneel behind the victim's head and lower your elbows to the ground;

Place your forearms along the victim's head;

place four of your fingers under the angle of the casualty's jaw so that they are below the ears, place your thumbs on the casualty's chin;

Slightly straighten the victim's head, then, using your index fingers, lift the lower jaw up, while simultaneously using your thumbs to pull the chin forward and down;

If the victim's lips are still closed, press the lower lip downwards and open the victim's mouth to allow air to pass freely;

IMPORTANT! *If you suspect a neck or cervical spine injury, perform only a mandibular thrust, holding the victim's head with your forearms to prevent it from turning sideways. Neck or cervical spine injury should be suspected in cases of obvious trauma to this area, as well as in blast injuries and road accidents.*

3.11 "Hear-See-Feel" Methodology for Checking and Assessing Breathing Efficiency

Assess for breathing using the "hear-see-feel" technique: Counting the rate and depth

of breathing is essential to detect signs of respiratory failure in the victim in a timely manner. **Use the "hear-see-feel" technique (Figure 3.15):**

lean your ear towards the victim's nose and mouth;

with your eyes, follow the movement of the victim's chest and abdomen; for better visual control, you can also place your palm on the border between the victim's chest and abdomen;

Look to see if the chest moves, listen to see if air escapes when exhale, feel the flow of air on your cheek;

count the number of respiratory movements (counting is done by exhalations) for 10 seconds;

To find the number of respiratory movements per minute, multiply the result obtained is 6 (if the count was carried out within 10 seconds);

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The normal respiratory rate for a person is 12 to 20 breaths per minute. If the victim you are assisting is breathing more or less than these rates, you may suspect that the victim is in respiratory failure.

Figure 3.15 – Breathing assessment using the "hear-see-feel" method

3.12 Transferring the casualty to a stable lateral position

All unconscious victims who are not in shock and who do not have suspected neck, pelvic or spinal injuries should be placed **in stable lateral recumbency .**
position:

1. Carefully lay the victim on his back without causing any additional damage.

2. Place the victim's hand closest to you at a right angle to the body, bent at the elbow, palm up.

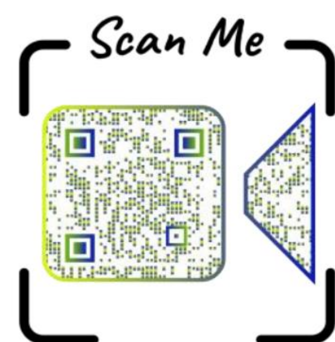
3. Take the victim's other hand and place the back of the hand against the opposite cheek. (Figure 3.17)

4. Hold the casualty's elbow with one hand and pull it up with the other. his knee up to bend his leg and place his foot on the floor.

5. With two levers (knee and elbow) carefully pull them towards you so that the victim turns on his side facing you. (Figure 3.18)

6. Move the casualty's bent leg forward so that it rests on the floor, thereby adding stabilization to the side position.

7. Check whether the victim's head has tilted back, if this has happened - carefully lift and tilt the victim's head forward, fixing its position and check that the victim breathes freely in this position.



Video material 3.5:
Transfer of the victim in a stable lateral position.

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Figure 3.17 – Preparing to transfer a victim to a stable lateral position

Figure 3.18 – Raising the victim's knee up

3.13 Features of nasopharyngeal airway placement

A nasopharyngeal airway is used:

1. if the victim is unconscious;
2. conscious, but at risk of airway obstruction and/or loss of consciousness consciousness;
3. if his breathing rate is less than two times in 10 seconds;
4. if the victim makes sounds such as wheezing, snoring or gurgling

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IMPORTANT! A nasopharyngeal airway ***should not*** *be used if the victim has a damaged palate and cheekbones or a severe injury.*
nose.

You should not *use a nasopharyngeal airway:*

if there is discharge of blood and/ or cerebrospinal fluid (clear fluid) from the nasal cavity and/ or ears;

if there are the following hemorrhages: bruises behind the ears; bruises around the eyes (symptom of "raccoon eyes" or "glasses"); These symptoms may indicate a fracture of the base of the skull.

Before inserting the airway, make sure the victim is lying on their back, face up.

Determine the appropriate tube size. To select the appropriate nasopharyngeal airway size, measure the distance from the tip of the nose to the earlobe of the victim.

Lubricate the air duct with gel (lubricant) or water.

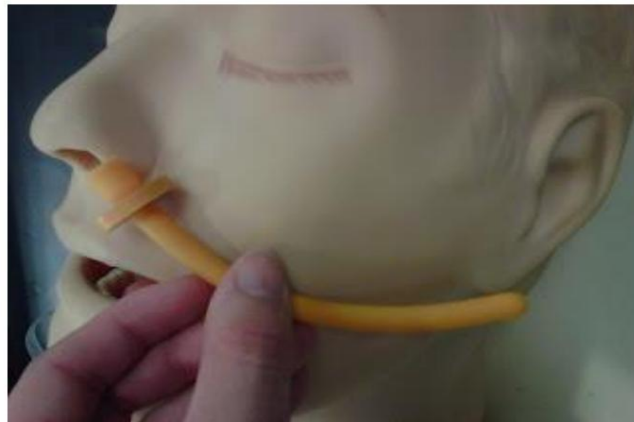

Figure 3.19 – Determining the appropriate tube size

Nasopharyngeal airway insertion technique:

1. open the victim's nostril by forming a "pig's-eye"; 2. 3.

usually the right nostril is used for the first attempt;

insert the tip of the air tube into the nostril with the beveled angle against the nasal septum (the partition in the nose that separates the nostrils), so the bevel (pointed end) will be adjacent to the nostril;

4. position the air duct axis perpendicular to the face, then insert the air duct into the nose with the concave side towards the hard palate;

5. Carefully guide the airway under the inferior turbinate, parallel to the palate along the posterior pharynx with light (10-30 degrees) rotational movements until the flange end is pressed against the patient's nostril;

6. Make sure the airway is inserted correctly by feeling the air exhaled through the external opening of the airway and also check to see if you can see the distal end of the airway behind the patient's tongue.

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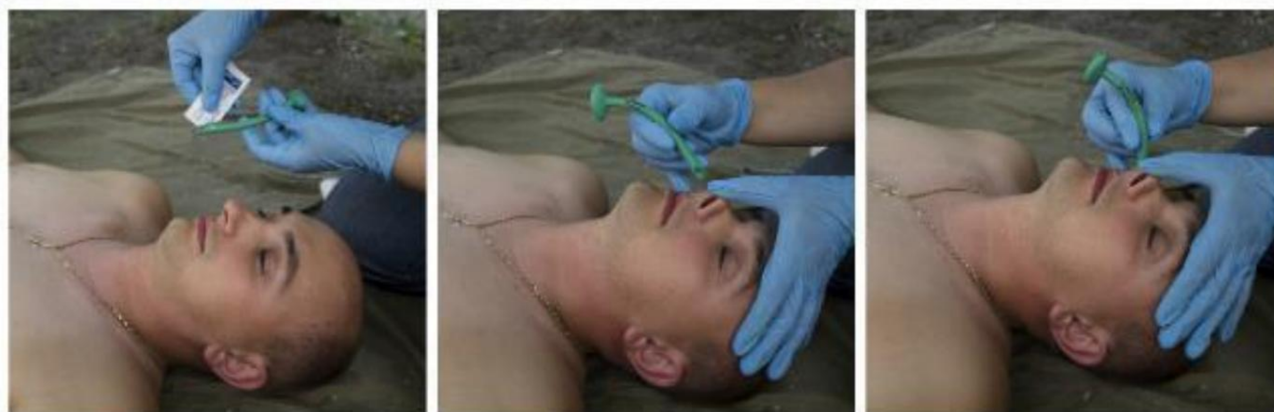
7. secure the air duct with a piece of adhesive tape or bandage;

8. Place the victim in a stable position.

If there is no damage to the right nostril, start placing the nasopharyngeal airway in that nostril. You can only make 2 attempts, if it does not work, make 2 more attempts in the left nostril. If it is impossible to place the nasopharyngeal airway, the attempts should be stopped.



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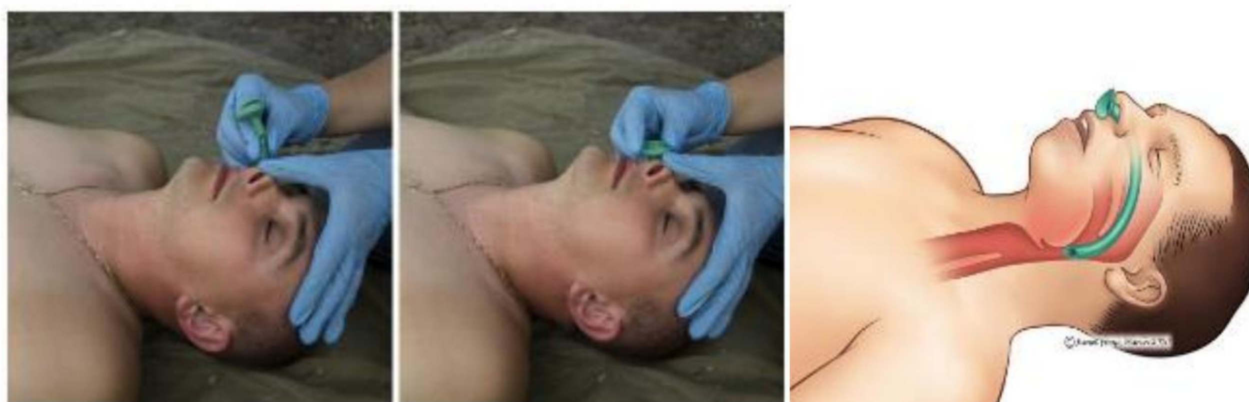

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Figure 3.19A – Nasopharyngeal airway insertion technique

Never force the airway into the victim's nose. If resistance is felt, pull the airway out and try inserting it into the other nostril. If the airway cannot be inserted into either nostril, place the victim in a stable lateral position or provide a constant jaw thrust.

3.14 Signs of respiratory distress and respiratory failure.

In order to detect possible injuries or trauma to the chest, You need to remove the bulletproof vest from the victim, if he is wearing one.

Remove the body armor carefully, protecting the victim's face from possible damage by the front plate of the body armor.

Then, expose the victim's chest by removing or cutting off their clothing. You can do this using atraumatic scissors, which are in the victim's first aid kit.

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Signs of respiratory failure:

difficulty breathing (including the inability of conscious victims to take a deep breath);

the victim's breathing is too weak to be effective (breathing less than 2 times in 10 seconds);

rapid breathing (more than 5 times in 10 seconds).

In addition to chest injuries, signs of respiratory distress can also be caused by smoke or toxic gases. It is critical to notify a medical professional if a victim is experiencing signs of respiratory distress.

3.15 Procedure for examining the chest.

Life-threatening injuries and trauma to the chest can cause signs of respiratory failure.

There are two types of chest injuries that can potentially lead to threat to the victim's life:

penetrating wound, in particular gunshot or shrapnel (Figure 3.20);

closed blunt chest trauma resulting from an explosion, a road accident (the chest hitting the steering wheel), a bullet-proof vest injury (a bullet or shrapnel hitting a bulletproof vest), etc. (Figure 3.20 A). It can manifest itself in the form of any deformation of the chest, as well as in the form of bruises, swelling, contusions on the chest, back and ribs, as well as crepitus (crackling, “bubble bursting”, grinding, which can be heard by ear or felt by touch).

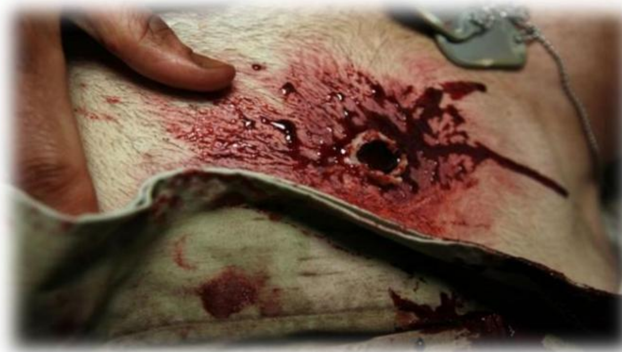

Figure 3.20 – Penetrating chest wound

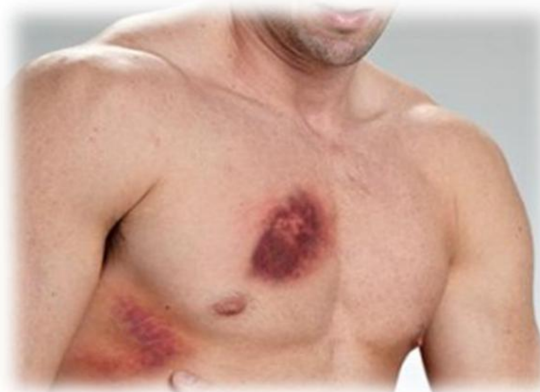

Figure 3.20A – Closed blunt chest trauma

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The search for chest injuries is carried out as follows: the ENTIRE surface of the chest should be exposed (as already mentioned), inspected, palpated (felt with fingers), and checked, including its anterior, posterior, and lateral surfaces, as well as the armpit areas.

IMPORTANT! *Before turning the victim over, it is imperative to check the integrity of his pelvis.*

To do this, press the wings of his pelvis in one quick, sweeping motion in a "one-to-one" direction. If

crepitus is felt (a feeling of bone rubbing against bone, a soft crunch), a pelvic fracture should be suspected. In this case, senior medical personnel should be called immediately.

Relatively small injuries may occur on the chest, so the examination should use "stretching" movements (Figure 3.21). It is necessary to stretch and examine all folds of the victim's skin, including, in women, the areas under the mammary glands.

Figure 3.21 – "Stretching movements" used for for chest examination

Don't forget to check the areas under the

armpits! If you find a penetrating wound(s) to the chest, press them firmly with your gloved hand, call a doctor, and if he/she is not available, start providing first aid!

Do not attempt to pack this wound with hemostatic or other dressing material. Your goal is to locate the wound, recognize signs of respiratory distress in the victim, if any, and cover it with an airtight dressing.

3.16 Providing assistance to a victim with pneumothorax and other chest injuries.

In open pneumothorax, the pleural cavity communicates with the external environment, so a pressure equal to atmospheric pressure is created in it.

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That is, during inhalation, additional air enters the pleural cavity, and during exhalation, the same amount leaves. With an open pneumothorax, there is no accumulation of air in the pleural cavity. However, the lung collapses, since the most important condition for the expansion of the lung is negative pressure in the pleural cavity. The collapsed lung is turned off from breathing, gas exchange does not occur in it, the blood is not enriched with oxygen. It may be accompanied by hemothorax - blood in the pleural cavity.

If there is a hole in the chest wall, it is necessary to transfer open pneumothorax into a closed one by applying an occlusive dressing.

Ask the victim to take a deep breath. If there is no foreign object in the wound, press your palm against the wound and close off the air supply. If the wound is through, close the entrance and exit openings.

Cover the wound with an airtight bandage, for example, a piece of plastic bag or plastic wrap. If this is not at hand, take a piece of cloth or something from clothing and grease the surface of the fabric with Vaseline. Secure the bandage with adhesive tape, around the entire perimeter on a deep exhale. (raise higher) Occlusive self-adhesive film is a means for providing tactical pre-hospital care for penetrating chest wounds. They are used

to prevent the development of open pneumothorax. They are divided into those that are a film with an applied adhesive layer and those that also have a valve.

Technique for applying a special occlusal sticker:

open the package with the occlusive dressing;

wipe the skin around the wound with a napkin from the kit or the victim's clothing;

peel off the film from the occlusive sticker;

Place the occlusive dressing over the wound while exhaling, with the sticky side facing the body so that the wound is centered on the dressing.

Repeat the application of the second occlusive dressing for the exit opening (if applicable). If the occlusive dressing has a flap, position the flap in the projection of the wound opening.

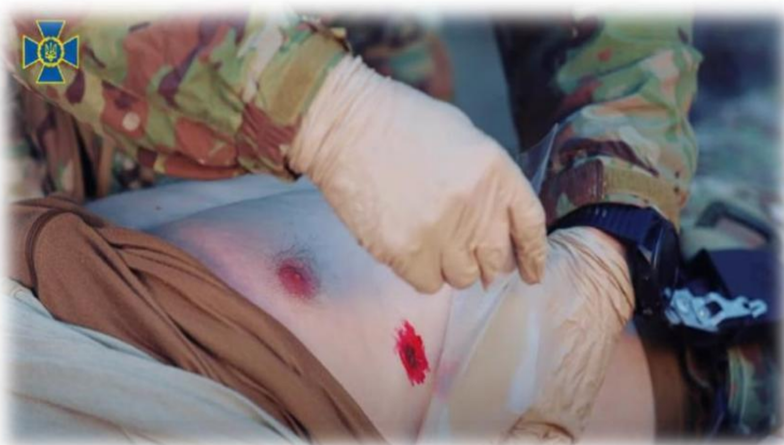
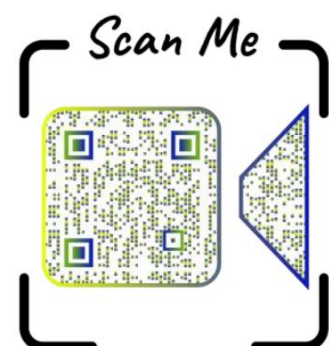


Figure 3.23 – Application of a ventilated occlusion sticker



Video material 3.6:
Application of occlusal sticker

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If the victim's condition worsens after applying an occlusive dressing, it is necessary to:

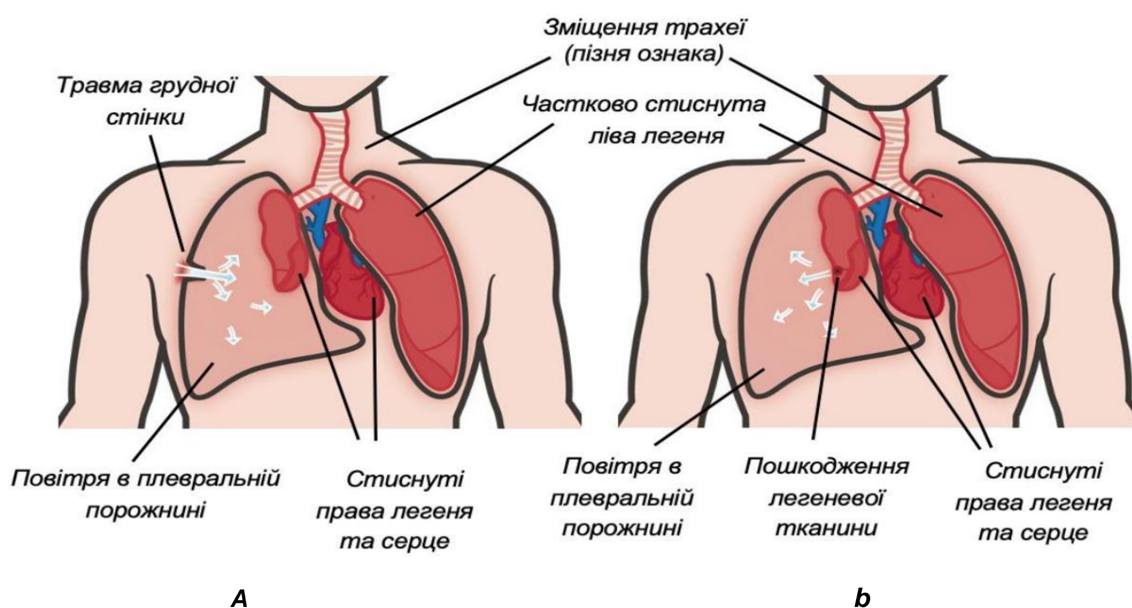
unstick the edge of the occlusive dressing and restore the condition of the open wound opening, in this way we release the air that has collected under the occlusive dressing, the technique is called ("burping"). If this does not help, then in the future the victim will need a doctor for specialized help.

Tension pneumothorax.

It is a very common and preventable cause of death on the battlefield. It can occur from open wounds to the chest, and less commonly from wounds to the abdomen, shoulder, or neck. Blunt, closed chest trauma, such as that which can occur in a car accident or a bullet injury, can also cause a pneumothorax, as air enters the chest through a break in the lung itself.

Tension pneumothorax is a complication that can lead to death. More and more air enters through the wound opening and accumulates in the space between the lung and the chest wall. Each breath adds more air to the space outside the lung. The pressure builds up and compresses both the lung and the heart, along with the blood vessels leading to the heart.

The pressure of air accumulating in the chest can cause the trachea, heart, and lungs to shift in the opposite direction and cause compression of the structures located there. This leads to respiratory failure, shock, and ultimately, traumatic cardiac arrest. And this can kill. (Figure 3.22 a, b)



Symbols:

***a** – open; **b** – closed.*

Figure 3.22 – Tension pneumothorax

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Suspect tension pneumothorax in the event of significant trunk trauma or primary blast injury and in the presence of one or more signs of tension pneumothorax:

agitation (panic state, state of anxiety);
asymmetry of the chest (movement of the chest on the side of the uninjured lung);

severe or progressive respiratory disorders;
severe or progressive tachypnea (rapid, rapid breathing);
swelling of the neck veins;
displacement of the trachea to the opposite side of the damaged lung (usually occurs at a late stage).

3.17 Evaluate the effectiveness of methods for stopping bleeding

At this stage, your task is to make sure that external massive bleeding controlled and no additional injuries not previously detected.

The effectiveness of previously taken measures to stop massive bleeding should be constantly monitored to be sure that they are working.

Check:

tourniquets are applied (do not forget to check not only for the absence of bleeding, but also for the absence of a pulse on the affected limb);

packed wounds with hemostatic or gauze bandages and pressure bandages (a pulse must be present on the affected limb);

any other methods of stopping bleeding.

A secondary examination should then be performed, which involves a head-to-toe examination. This is a thorough examination, the purpose of which is to detect all injuries, so the victim should be exposed as much as possible. The procedure for the secondary examination:

The head is examined for bleeding and injuries.

IMPORTANT: *Any active bleeding must be stopped before continuing the examination.*

The abdomen is examined and palpated for tenderness, tenderness during palpation, and the presence of hemorrhages into the skin, which are signs of internal bleeding.

The pelvis is palpated to check for integrity. Crepitus or disruption of integrity may be signs of a pelvic fracture, which can cause life-threatening bleeding into the retroperitoneal space.

A fracture or fracture of a long bone can be identified by localized pain on palpation and the presence of bone crepitation at the fracture site. Fractures and fractures of a long bone require immobilization by splinting to prevent further trauma and blood loss.

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3.18 Assessing peripheral arterial pulse

Pulse is the oscillatory movement of the arterial wall, which occurs as a result of heart contractions and the elasticity of the vascular walls.

Assessing the pulse is one of the most important available methods for determining the condition of the victim, and the pulse is also an indicator of the effective provision of pre-hospital care in dynamics.

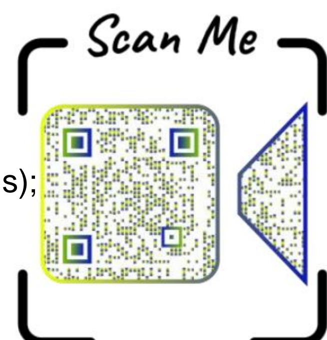
It is important to focus on the peripheral pulse to assess tissue perfusion (a proxy for blood pressure). To check the pulse on the radial artery, place two or three of your fingers where your thumb attaches to the casualty's wrist (Figure 3.24). Do not use your thumb to check the casualty's pulse, as you may confuse your own pulse with the casualty's pulse. When palpating the pulse, you should first pay attention to 2 signs: filling (the pulse may be weak, thready, absent, or of normal filling) and rate (the normal pulse rate is 60-90 per minute).

If the victim does not have a pulse on a peripheral artery, he is likely is in a state of shock and needs medical attention.

Figure 3.24 – Checking the peripheral pulse on the arm

3.19 Determining the level of consciousness of the victim using the AVPU scale

The acronym of the AVPU scale is the English abbreviation of the scale for determining the level of consciousness: A – Alert (conscious), V – Verbal (responds to voice), P – Pain (responds to pain), U – Unconscious (unconscious);



Video material 3.7:
Determining the state of consciousness by AVPU.

The presence of injuries that cause massive bleeding or breathing problems gives reason to expect that the victim's state of consciousness may change.

Assessing the victim's verbal and nonverbal responses will help to notice changes in their state of consciousness.

The initial rapid assessment of the victim's state of consciousness occurs during communication with him by asking him to follow commands and answer questions. From the information obtained during communication, it is possible

to determine the state
consciousness of the victim on the AVPU scale:

the victim is conscious (“A”);

responds to verbal commands appropriately (“V”); responds to

painful stimulation (“P”);

unconscious (“U”).

Formally, assessing the level of consciousness is a relatively simple process that includes the following three main steps:

First, ask in a loud but calm voice:

“Are you okay? What is your name, what happened to you? Where are you?” If the victim " responds coherently, has eye contact with you, this means,
that he has an “A” grade.

If the victim is unresponsive or mumbling, you should repeat in a loud but calm voice, “Are you okay?” to make sure they are not simply distracted, and if the response is unclear, ask the victim to squeeze your finger or move an arm or leg. If they respond to your command, their state of consciousness is “V.”

If the victim does not respond to voice commands, squeeze the first or second finger above the nail of the limbs or rub the breastbone vigorously with the finger bone or, if the victim is wearing an individual body armor, press on the middle of the upper jaw above the lip or pinch the earlobe. If the victim responds in any way to pain stimuli, he is classified as “P”.

And if the victim does not respond to any stimuli, he is considered “U”.

IMPORTANT! *If the victim is not at level “A”, this means that he is confused - and it is necessary to disarm him and take away his means of communication, if this has not been done before.*

3.20 Signs of shock

Hemorrhagic shock is a condition in which the body's tissues are not receiving enough blood, causing them to become starved of oxygen. It can occur for many reasons, but on the battlefield, shock is most often the result of acute blood loss. Hemorrhagic shock is the leading preventable cause of death on the battlefield.

The circulating blood volume (CVV) of an adult is on average
5 liters. *Here's how the human body reacts to losing a certain amount of blood:*

The loss of 500 ml of blood is the amount a person gives as a donor.
This loss is physiological and does not pose a danger to the body;

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loss of 1 liter of blood may manifest only as a slightly accelerated
heart rate (HR);

After a blood loss of 1.5 liters, the victim may experience anxiety, a weak pulse, tachycardia, a decrease in blood pressure, and rapid breathing. However, this will most likely not lead to his death;

with a loss of 2 liters of blood, the victim may have impaired consciousness, weak or absent pulses in the peripheral arteries, tachycardia (rapid heartbeat), low blood pressure, and rapid breathing. This condition will most likely indicate ongoing, unstoppable bleeding and the victim may die from blood loss. This condition is referred to as hemorrhagic shock;

in the presence of massive, ongoing bleeding, the victim loses
2.5 liters of blood, or half of the total blood volume. This amount of blood loss is fatal!

REMEMBER! *Your task is to prevent the fighter from losing so much blood!*

Recognizing hemorrhagic shock

1. The main signs of battlefield shock are depression of consciousness without brain injury and/or weak or absent pulses in the peripheral arteries.
A pulse rate of more than 100-120 per minute indicates the possible presence of shock. The pulse rate on the peripheral arteries is determined for 15 seconds, or for 1 minute (data obtained for 15 seconds, multiplied by 4). 2. Other signs of shock:

confused consciousness;
altered mental state (anxiety, agitation);
paleness, grayness, bluishness (cyanosis) of the skin;
cold, clammy skin;
rapid breathing (tachypnea), swelling of the nasal wings when breathing;
rapid heartbeat (tachycardia);
nausea;
severe thirst;
previous episodes of massive bleeding.

IMPORTANT! *If there are signs of shock, notify a doctor immediately!*

Until the arrival of a medic or an evacuation team, a victim with signs of shock should be placed in the anti-shock position - on his back, with his legs raised slightly above the level of the heart, in the absence of contraindications (such as suspected internal bleeding, pelvic, spinal or head injuries, etc.). This will increase blood flow to the heart and slightly increase blood pressure.

3.21 Signs of feasibility and implementation of turnstile conversion

The experience of the Russian-Ukrainian war, which has been going on since 2014 to the present, shows that in real combat conditions, the evacuation of a serviceman with a tourniquet applied to his limb to advanced surgical units, where

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can be performed surgical intervention to restore blood circulation in the limbs, may take more than two hours. With such a long stay of the tourniquet, acute irreversible ischemia of the limb usually develops, which subsequently leads to its amputation. And with untimely conversion of the tourniquet
leads to acute kidney injury, multiple organ failure, and death of the victim, even in those victims who did not have traumatic limb amputation, major vascular injury, large limb defects, and critical bleeding.

IMPORTANT! *The concept should be considered: "As soon as the situation allows, the need for the use of a turnstile should be reassessed and a decision made to convert the turnstile if the time spent in a conditionally safe area or during the evacuation phase will last more than 2 hours from the moment the turnstile is applied."*

Tourniquet conversion is an approach in which a decision is made to replace the tourniquet with another method of stopping bleeding. This assessment should be made as soon as possible, but no later than two hours after the initial tourniquet application.

The conversion of the tourniquet is performed by medical personnel or military personnel with appropriate training (senior combat medics, combat medics and other military personnel who have undergone training in tactical medicine, or who follow the instructions of a medical worker on the conversion of the tourniquet, provided by means of communication). The conversion of the tourniquet is performed in in the tactical shelter area and in the safe zone, as well as during and at the stages of medical evacuation.

IMPORTANT! *It is strictly forbidden to temporarily loosen the tourniquet in order to restore tissue nutrition (oxygenation) until the tourniquet is converted or "moved", as there is a risk of death due to small blood loss.*

Time limits for performing turnstile conversion:

Conversion is considered safe (if indicated) when less than two hours have passed since the tourniquet was applied; if more than two
hours have passed since the tourniquet was applied, then conversion at the prehospital stage is dangerous and prohibited.

Contraindications to performing tourniquet conversion: traumatic amputation of a limb (complete or partial); the victim has signs of shock; more than two hours have passed since
the tourniquet was applied; the wound is not suitable for tamponade;

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if for tactical or medical reasons, switching to other methods of stopping bleeding is inappropriate;

it is impossible to observe the wound for resumption of bleeding;

turnstile conversion delays evacuation.

Turnstile conversion is performed if:

the wound is free of clothing and suitable for conversion;

evacuation is delayed by two hours;

the tourniquet was applied less than two hours ago;

there is a pulse on the peripheral arteries (on the limb without a tourniquet), i.e. the victim is not in a state of shock;

if tactical conditions allow;

Carrying out the procedure will not delay evacuation.

How to prepare for a turnstile conversion:

assess the victim's condition (make sure the victim is in stable condition, with no signs of shock or uncontrolled bleeding);

availability of necessary tools (for example, hemostatic bandages, gauze bandages, compression bandages, as well as elastic bandages (for fixing tamponade));

communication with the victim (if the patient's condition allows - explain to him what happens to reduce anxiety levels).

Sequence of actions for converting a turnstile:

use personal protective equipment (wear gloves);

Remove clothing from the wound and assess the wound;

remove the hemostatic dressing or bandage from the packaging;

Fill and tightly pack the entire wound cavity, maintaining firm pressure on the wound (more than one hemostatic (gauze) bandage may be needed;

make sure that the hemostatic or gauze bandage protrudes above the wound (above the skin) by 3-5 cm;

After packing the wound, continue to apply direct pressure with your hands for at least 3 minutes;

remove the compression bandage from the packaging (or dressing);

place the compression bandage pad directly on the pre-packed wound (or if the wound does not require packing, directly on the wound);

wrap a compression bandage (or elastic bandage) tightly around limbs concentrating pressure on the wound;

fix the end of the pressure bandage;

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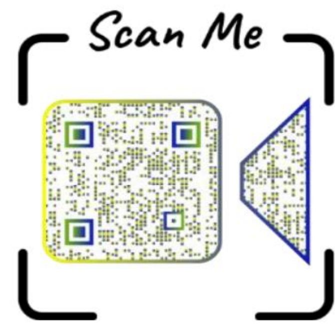
Slowly loosen the tourniquet (no more than one turn of the tourniquet in one minute), observe the pressure bandage for signs of renewed bleeding;

if bleeding resumes, tighten the initial "quick" tourniquet and ensure that bleeding has stopped and there is no peripheral pulse;

If the conversion is successful, loosen the tourniquet and move it slightly above the bandage, loosely but without slack in the strap in case it is needed later, and note the time of tourniquet removal in the "Victim Card".



Video materials 3.9:
Turnstile conversion (replacement)

IMPORTANT! *Periodically check the wound for re-infection. bleeding and reassess after any movement of the victim.*

Tourniquet syndrome is a complex of pathological changes that occur in response to circular compression of the limb during improper use of a tourniquet and is characterized by disorders that can lead to the development of necrosis.

Manifestations of tourniquet syndrome:

severe pain and swelling at the site of tourniquet application;

skin discoloration, pallor, cyanosis, or marbling below the tourniquet site;

impaired sensitivity, weakness or paralysis of the limb due to nerve damage;

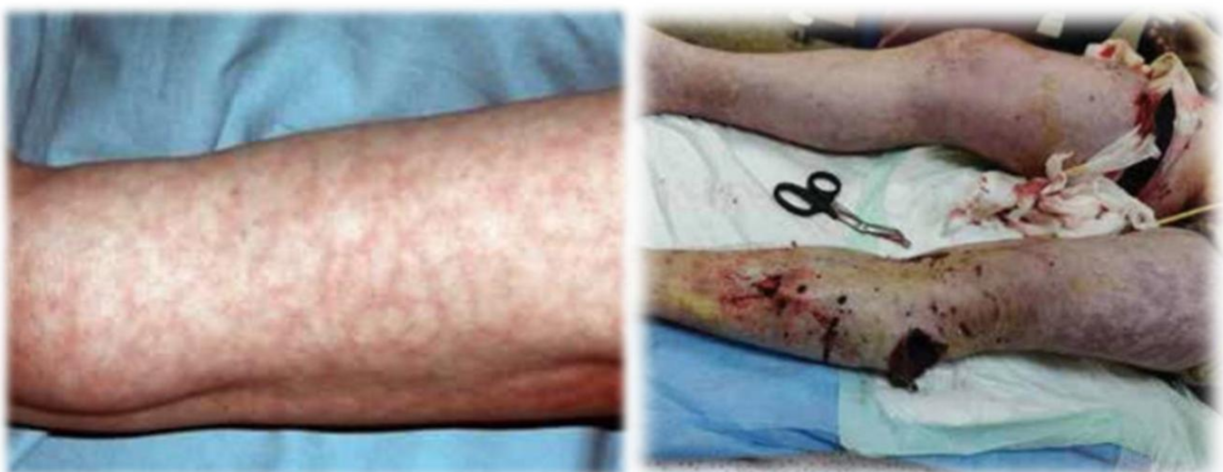


Figure 3.26 – Example of a tourniquet syndrome

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3.22. Signs of feasibility and implementation of "moving" turnstiles

Stopping bleeding with a tourniquet is an effective method and conditionally refers to life-saving. It is known that such manipulations have advantages over diagnostic actions at the stage of Aid under fire. At the above stage, stopping massive external bleeding from wounds of the extremities is in the first place.

IMPORTANT! *The concept should be considered : "As soon as the situation allows, the need for the use of the turnstile should be reassessed and a decision made to move it if the time spent in the conditionally safe area or during the evacuation phase lasts more than 2 hours from the moment the turnstile is applied."*

At the stage of Tactical Shelter Assistance, a "meaningful" tourniquet is applied to increase the effectiveness of stopping bleeding and minimize the negative effects of the tourniquet on healthy tissue.

A "meaningful" turnstile is imposed in cases:

1. Replacing a "quick" tourniquet applied too high from a wound during the Aid Under Fire phase
2. Stopping bleeding from a wound that was discovered during a detailed examination at the Tactical Shelter Assistance stage

Sequence of actions when "moving" the turnstile:

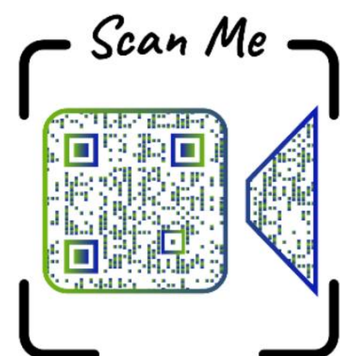
The "meaningful" tourniquet is applied directly to the skin, 5-8 centimeters above the wound. In cases where

a "quick" tourniquet is previously applied, its loosening is carried out only after the "meaningful" tourniquet is applied and only if the previous conversion is unsuccessful or impossible.

The tourniquet should be loosened slowly (no more than one turn of the handle in one minute), observing the pressure bandage for signs of renewed bleeding.

Leave the weakened "quick" tourniquet on the limb, having previously moved it closer to the "meaningful" tourniquet.

If bleeding from the wound resumes or a peripheral pulse appears, a "quick" tourniquet is necessary.
tighten again.



Video materials 3.8:
"Moving" turnstiles

Conditions for "moving" turnstiles:

the wound is free from clothing and suitable for movement;

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evacuation is delayed for more than two hours;
the tourniquet was applied less than two hours ago;
there is a pulse on the peripheral arteries (on the limb without a tourniquet), i.e. the victim is not in a state of shock;
if tactical conditions allow;
Carrying out the procedure will not delay evacuation.

IMPORTANT! *It is strictly forbidden to temporarily loosen the tourniquet in order to restore tissue nutrition (oxygenation) - there is a risk of death due to small blood loss.*

3.23. Assistance with open wounds of the abdominal cavity

Eventration is the protrusion of internal organs beyond the abdominal cavity or wound, etc., as a result of decompression caused by injury to the peritoneum, muscle layer, and skin.

For open wounds of the abdominal cavity:
It is forbidden to manipulate (insert) intestinal loops and internal organs, which come out of the wound to avoid further injury;
internal organs protruding from the wound – need to be moisturized with water to prevent them from drying out;
cover with dressing material and fix the organs protruding from the wound with a bandage (keep it constantly moist);

Carefully secure the bandage: do not put pressure on the wound, do not compress the abdominal cavity, and do not allow the victim to become hypothermic;
monitor the victim's consciousness and pulse; when moving the victim, keep him in a horizontal position (lying down).

REMEMBER: *If adhesive tape or tape is not available, loosely cover the bandage with a cloth and tie it on the side opposite the wound.*

IMPORTANT! *It is forbidden to give food and drink to a victim with eventration.*

In the case of foreign bodies that have passed through the abdominal wall:
you cannot move or remove foreign objects from the wound;
you need to stabilize the foreign object with a bandage using a roller of bandages;
Palpation cannot be performed in the case of such an injury.

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3.24. Assistance with eye injury

Vision is one of our most important senses. Eye damage from trauma can lead to irreversible changes, up to permanent vision loss or blindness, if not detected and treated properly and as early as possible.

Eye injury can be suspected based on the following signs (Figure 3.30):
complaints of pain in the eye area, discomfort in the eye, tearing, redness eye;
bleeding around the eye, inside or from the eye itself (eyeball);
the presence of splinters or other foreign bodies in or near the eye;
swelling or rupture of the eyeball;
protrusion of the eyeball from the eye socket;
sudden significant deterioration of vision.

If the victim has at least one of the above signs, or you If you suspect an eye injury, you should take the following steps:
Take a quick visual acuity test.
1. 2. You should not try to forcefully open the eyelids of the injured eye, if there is swelling or edema, to have your vision checked!
3. The injured person should cover one eye with their palm (if one eye is injured, cover the healthy eye first).
4. Hold a newspaper or book in front of the victim at a distance. outstretched hand.
5. Assess the victim's ability to read some of the text.
6. If you can't read, show a few fingers on your hand and ask the victim to count them;
if unable to count fingers, ask the victim to describe the movement hands (wave your hand up and down and left and right in front of the affected eye);
if you cannot identify the hand movement, ask the victim to distinguish light from darkness (covering and then opening the affected eye).
7. Repeat the same for the other eye.
8. Determine the visual acuity for each eye based on a comparison of what the casualty sees (e.g. can count fingers with the injured eye, sees normally with the healthy eye).

Figure 3.30 – Eye injury in a victim

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Figure 3.31 – Placing the protective shield on the victim's eye with the convex side facing outwards

IMPORTANT! *To protect the injured eye, a hard shield should be used (Figure 3.31), NOT a pressure bandage! Applying a bandage without a shield directly to the injured eye can result in complete loss of vision!*

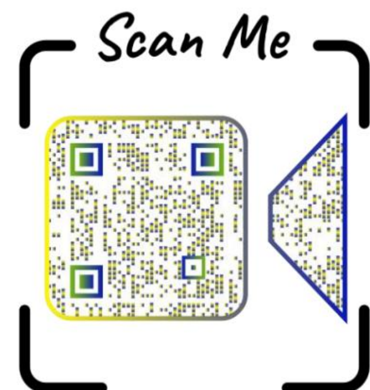
In combat situations, do not close both eyes, except in cases where both eyes are injured.

If eye protection is not available, consider using tactical goggles.

Secure the shield with adhesive tape (Figure 3.30), adhesive plaster, or bandage.

Give the victim specific medications from the AMZI to prevent infection (provided there are no contraindications).

Figure 3.32 – Securing a protective shield on one eye of the victim



Video materials 3.11: *Providing assistance in case of eye injury*

If the victim complains of discomfort in the eye, tearing, redness of the affected eye, or the mechanism of injury suggests a foreign body in the eye, you should:

rinse the affected eye;

cover the affected eye with a protective bandage (shield);

If a foreign body is stuck or protruding from the eye:

do not try to remove it;

fix the foreign body, if necessary;

cover the affected eye with a protective bandage (shield), if possible;

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give the victim certain medicines from the AMZI;

to transmit information about the victim to the doctors as soon as possible, evacuate the victim to the next level of medical care.

IMPORTANT! *If the victim was wearing glasses, they must be sent with them.*

Thermal burns of the eyes.

They are usually mild or moderate in severity, as the eyelids reflexively contract when exposed to a damaging factor. That is why in the case of a thermal eye burn, closed eyelids CANNOT be forcibly opened (to prevent excessive trauma to the eyelids). The victim may complain of sharp eye pain, blurred vision, and swelling.

Help in case of thermal burns of the eye: stop the burning process; assess the degree of damage to the surrounding skin tissues; cover the affected eye with a dry protective shield and then proceed according to the general algorithm for eye injuries/traumas.

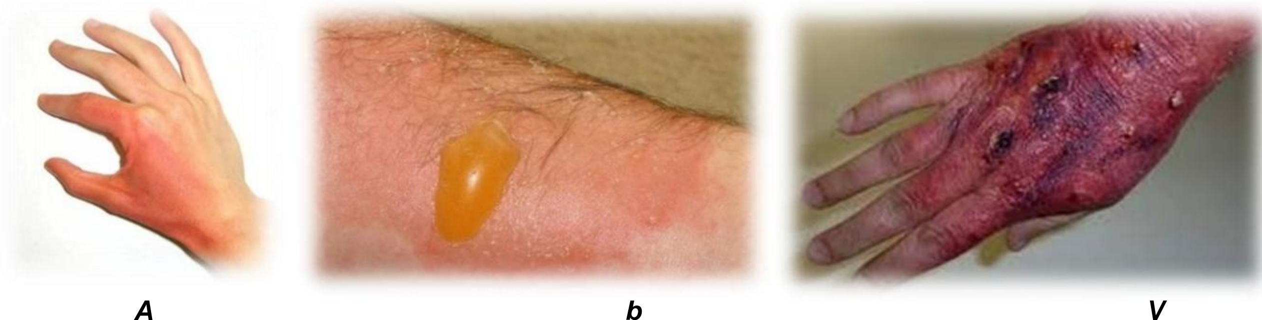
Chemical burns of the eyes.

They occur as a result of chemicals getting into the eye. The victim may complain of severe pain, a foreign body sensation in the eye, tearing, blurred vision or even loss of vision, redness of the skin around the eyes, clouding of the cornea with a grayish or milky tint, and the formation of limited scabs.

Providing tactical pre-hospital care in case of chemical burns:
You should immediately rinse your eyes with plenty of water; put on a protective shield and then proceed according to the general algorithm for eye injuries/traumas.

3.25. Burn care

Burns are injuries to the skin and body tissues caused by local exposure to high temperatures, open flames, chemicals, or electrical current. This leads to loss of moisture and fluid through the wound, loss of heat, lack of protection against infection, and the onset of inflammation.



A ***b*** ***V***

Symbols:

a) 1st degree burn; b) 2nd degree burn; c) 3rd degree burn

Figure 3.33 – Examples of stages when receiving burns

Providing care for burns:

Priorities for providing tactical pre-hospital care for burn victims are no different from care for other combat injuries/injuries.

During the Aid Under Fire phase:

Victims must be pulled out of burning vehicles or buildings and move to relatively safe places (tactical shelter).

Stop the burning process (extinguish the open flame, but do not start a fire). smoldering clothing, etc.) Extinguishing flames can be an element of self-help.

If necessary, in the presence of massive bleeding, it is necessary to apply tourniquets (it is possible to apply tourniquets directly to the burned areas).

At the Tactical Shelter Assistance stage: stop the

burning process if this has not been done previously;

assess the level of consciousness using the AVPU scale;

ensure control of massive bleeding (tourniquets may be applied directly on burned areas);

ensure airway patency, taking into account contraindications;

Cut off burnt clothing, remove ammunition and all constricting objects (rings, bracelets, watches, chains, etc.) (Figure 3.34);

cool the affected area with water (if possible) or use hydrogel bandages (if available);

cover the burn with a dry bandage (preferably sterile) (Figure 3.35, a, b);

If the burn area is large (assessed using the "palm" method), wrap the victim in a thermal blanket to prevent hypothermia. Call a doctor immediately!

Figure 3.34 – Watches and jewelry should be removed if there are burns

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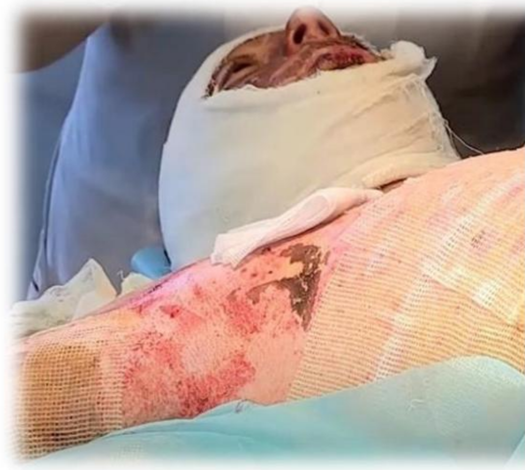

A. b.

Symbols:

a) applying a dry sterile dressing to the burn surface; b) dry sterile a bandage is applied to the burn surface

Figure 3.35 – Examples of dressings for burns

In case of burns, it is forbidden to: tear off fragments of fabric, clothing, ammunition if they are stuck to burnt skin;

to open blisters;

forcibly open the eyelids if they are burned;

apply ointments (including those based on dexpanthenol), fats, oils and bandages with them (this contaminates the burn surface and is a breeding ground for microorganisms);

apply brilliant green, blue, potassium permanganate, iodine;

apply powders (soda, starch), as well as soap and raw eggs (they form a film on the burn surface that is difficult to remove and are also a breeding ground for microbes).

Facial burns, especially those that occur in closed spaces, may be accompanied by respiratory tract burns. Flames, hot air and combustion products during fires in confined spaces (blindages, basements), military equipment and in areas where fire mixtures are used often affect the respiratory system. In case of inhalation of hot air, there may be pronounced swelling of the mucous membrane of the mouth and upper respiratory tract with the development of asphyxia. This is a life-threatening condition.

Respiratory tract burns may be indicated by: difficulty breathing and/or swallowing;

hoarseness and hoarseness of the voice;

hoarse breathing;

dyspnea;

cough with “coal” sputum;

complaints of sore throat;

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burning smell from the mouth;
soot/burnt facial hair;
Burns of the face, lips, tongue, throat, and nose may be visible.
Suspect this injury with prolonged smoke exposure. In case of burn respiratory tract, do not give anything to drink or eat and call a doctor immediately!

3.26. Methods for preventing the development of hypothermia

Massive bleeding causes hypothermia (undercooling) of the human body, since blood is a heat carrier. In turn, hypothermia leads to MORE bleeding, since blood cannot clot when it is undercool.
(form blood clots) properly. This can happen even in hot weather environment. Your task is to break this vicious circle!

Signs of hypothermia: slowed or slurred speech, lethargy, drowsiness, slowed breathing, pale skin, cyanotic extremities, goosebumps, chills.

Measures to prevent hypothermia:

Minimize, if possible, the undressing of the victim;

if possible, replace completely wet clothing with dry ones, prevent prolonged contact of the victim with cold surfaces (soil, concrete, asphalt), as such contact increases the loss of heat from the victim's body. Place a barrier between the cold surface and the victim's body in the form of a sleeping mat, raincoat, thermal blanket, etc., or if possible, place the victim on a raised insulated surface, for example, in a vehicle (Figure 3.25);

Wrap the victim completely in a thermal blanket with their AMZI, silver side facing the victim (Figure 3.26). Leave only the face exposed, but keep the head warm (wear a hat, etc.). If necessary, use several thermal blankets;

along with a thermal blanket, or instead of it (if it is not available), use dry blankets, ponchos, sleeping bags, that is, anything that retains heat;

if necessary, use additional improvised means for warming the victim (hot water bottles of various types, including improvised ones, etc.);
Minimize the impact of weather conditions on the victim.

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Figure 3.27 – Using a thermal blanket as a barrier between the soil and the victim's body

Figure 3.28 – Wrapping the victim in a thermal blanket

REMEMBER! *We are not talking about hypothermia in the usual sense, that is, death from exposure to cold. We are talking about maintaining the blood clotting system! Victims in shock cannot generate heat effectively. Even a slight decrease in body temperature can disrupt blood clotting and increase the risk of death from bleeding. Hypothermia is much easier to prevent than to treat!*

3.27. Conducting an examination for signs of head injury

A head injury is any damage to the head: abrasions, bumps, wounds, subcutaneous hemorrhages, fractures of bones (cranium, facial skull, skull base) and brain damage. The head consists of the outer coverings (soft tissues of the face, hairy part (scalp)), bones of the skull and brain.

Head injuries are divided into open and closed:

Open head injuries (usually caused by gunshot wounds, shrapnel from explosives, or stab wounds) include injuries that penetrate the scalp and skull bones and may reach the meninges.

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the brain and brain tissues located below, at the same time, there is a connection between the wound and the cranial cavity;

In the case of a closed head injury (usually the result of a blunt object blow, acceleration or deceleration energy, such as in an explosion, a car accident or rollover, a fall from a height, or sports injuries), there is usually no damage to the outer coverings, and in any case there is no communication between the wound and the cranial cavity. Traumatic brain injury (TBI) is a

condition caused by a head injury that results in physical damage to brain tissue that results in temporary or permanent impairment of brain function, regardless of the mechanism of injury. This condition results from damage to the brain, its membranes, blood vessels, skull bones, and outer coverings

heads.

It is extremely important to inform medical personnel at the scene of the discovery of signs of a head injury in the victim, as the absence of an ambulance and proper medical care can worsen the condition of a person with a traumatic brain injury and affect the final outcome of treatment.

The main mechanisms of injury that should lead to suspicion of TBI:

vehicle accident (collision, rollover, explosion, etc.);

blast wave, i.e. the presence of a victim within a radius of 50 meters from any explosion;

falls (including as a result of a blast wave or falling from a height of one's own height or from a vehicle, etc.), jumping into water (especially head first);

gunshot or shrapnel wound to the head, open skull fracture, direct blow to the head, etc.;

electric shock.

Common signs of TBI:

wounds, abrasions, bruises in the head and face area;

skull deformation;

severe pain or feeling of pressure in the head or neck;

ringing in the ears, hearing impairment;

nausea and/or vomiting;

trick of the move;

confusion or loss of consciousness;

mental and behavioral disorders;

memory impairment (amnesia);

visual impairment; nystagmus (involuntary rapid rhythmic oscillatory movements eyeballs to one side or the other (eye twitching));

tingling or loss of sensation in the fingers and toes;

loss of motor functions of the limbs;

convulsions;

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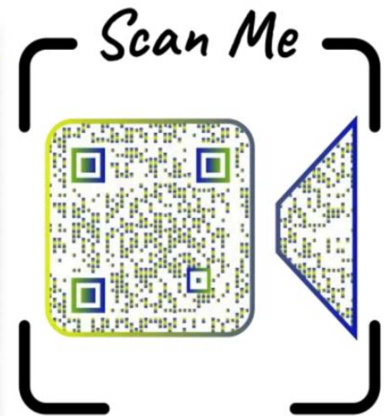
dilated or different sized pupils; lack of pupil reaction to light; presence of bruises behind the ears;

the presence of bruises around the eyes (symptom of "raccoon eyes" or "glasses");

Discharge of blood and/or cerebrospinal fluid (clear fluid) from the nasal cavity and/or ears.

IMPORTANT! *Head injuries must be reported to a doctor!*



Video materials 3.10: *Providing assistance for head injuries*

Figure 3.29 – Sample bandage for head injuries

3.28. Performing fracture immobilization

Every service member should be able to provide care to a casualty with a broken bone. Fractures can be closed or open, as shown in the pictures. Open means that there is a break in the skin associated with the fracture, often with protruding bone. Closed means there is no external wound associated with the fracture.

Signs of bone fractures:

severe pain, swelling, abrasions, bruises, deformation in the area of injury;

"clicking", crunching (crepitation), noticeable by sound and/or touch when changing body position;

limitation of movement;

unnatural position, shape, different length of the limb;

lack of pulse or loss of sensation in the injured limb.

Immobilization (immobilization) is a condition for preventing additional damage to soft tissues, blood vessels, etc., preventing bleeding and reducing pain at the fracture site during transportation. It is necessary to apply splints for fractures of the bones of the limbs and for their complete or partial amputation. Splints are divided into standard and improvised.

If standard splints are not available, create a makeshift splint using rigid materials such as boards, box fragments, tree branches

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etc. When applying the splint, grasp the joint above and the joint below the fracture site. Secure the splint with a bandage, wide strip of cloth, belt, adhesive tape, etc. (Figure 3.36 -3.37).

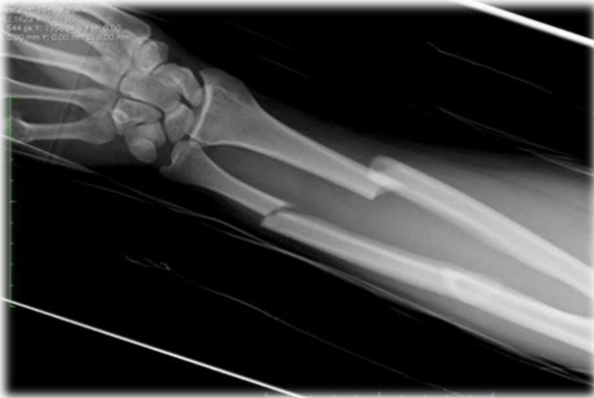

Figure 3.36 – Hand with a broken radius bone

Figure 3.37 – Hand with splint applied. One joint above and one joint below the fracture site are involved

Apply a splint before moving the casualty to minimize fracture displacement. The use of semi-rigid splints is recommended, if available (Figure 3.38).

Hand fractures can be fixed using a shirt victim (Figure 3.39)

Make sure the tire is not too tight. This can make it worse. circulation in the limb below the splint. Loosen the bandage if there is:

numbness;

tingling or increased pain;

pale or bluish fingers/toes.

Increased swelling may occur, so continue to monitor the victim closely. Be sure to check for a pulse in the affected limb before and after splinting. Continue to monitor for signs of compartment syndrome as described below.

Figure 3.38 – Use of a semi-rigid splint for a leg fracture

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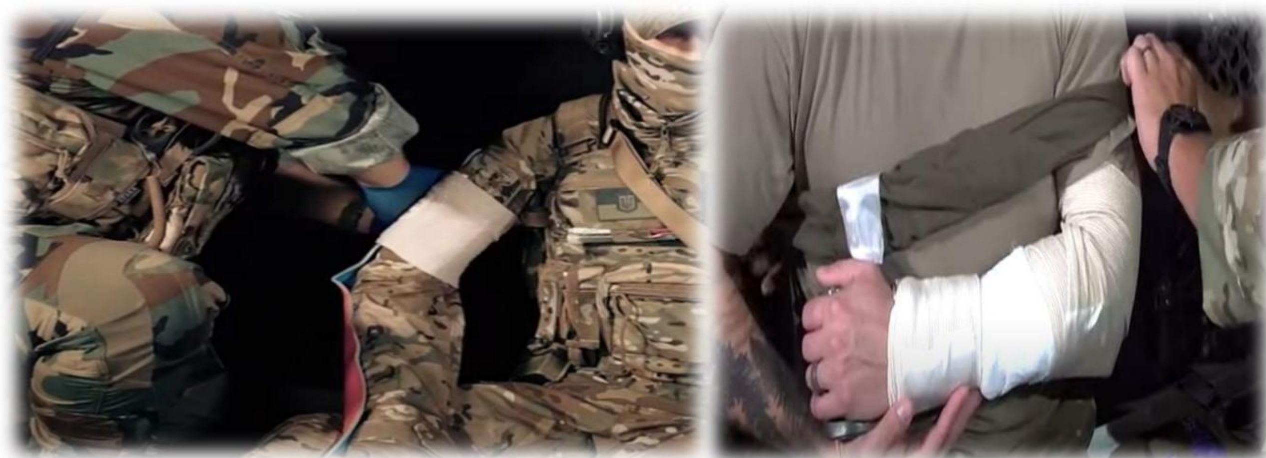

A. b.

Symbols:

a) fixation of the elbow with a splint in case of a shoulder fracture; b) fixation of the splint with a bandage.

Figure 3.40 – Examples of fixation of hand joints during fractures

3.29. Applying bandages to different types of wounds

Only after re-evaluating all previously treated wounds and confirming that a life-threatening wound has not been missed should you proceed to provide care for non-life-threatening or minor wounds.

Flush and clean wounds with water whenever possible. The goal is to clean the wound and remove any obvious foreign debris.

If resources are available and not needed for other victims, you can to apply bandages.

If you need to keep a supply of sterile dressings, you can use clean, dry cloths to wrap the wound. Keep hemostatic bandages and bandages for more serious bleeding.

If the victim can swallow, ask them to take moxifloxacin from the AMZI set of medicines.

Bandaging wounds with a bandage.

The bandage is a universal dressing package (can be used as an elastic bandage, as a pressure bandage). It comes in two vacuum packages. The bandage itself consists of an elastic bandage to which an absorbent pad is attached, a plastic compression element and a special retainer. A thread passes through the bandage, which prevents the bandage from unwinding if it falls out of your hands during bandaging. There is a loop at the end of the bandage for self-help.

IMPORTANT! *Always remember that when applying pressure bandages to the limbs, the latter may, over time, retract and turn into a tourniquet (Figure 3.39). Monitor the tension of the applied bandages and check the peripheral pulse on the limbs with bandages applied.*

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If there is a foreign body in the wound:

1. DO NOT REMOVE a foreign body. If a foreign body (shard, knife, reinforcement, etc.) has penetrated deeply into the wound, it cannot be removed, as it can: block blood vessels and partially stop bleeding; cause additional damage during removal.

2. Fix the foreign body. If there is a need to transport the victim or prevent further damage, the foreign object should be stabilized: use bandage rollers or gauze rolls on both sides of the object; apply a plaster or bandage in the form of a "nest" around the foreign body so that it remains immobile; do not apply excessive pressure so as not to worsen the condition.

3. Control bleeding. If there is massive bleeding, stop it above the site of injury with a tourniquet (if it is a limb). If it is impossible to use a tourniquet due to the anatomical location of the wound, apply direct pressure to the wound and/or use an improvised pressure element on the wound area or on the connecting part of the body above the wound (armpit, groin) until the evacuation team arrives.

4. Notify the medics about the foreign body and monitor the victim's condition (breathing, consciousness, blood circulation) until he is handed over to the evacuation team.

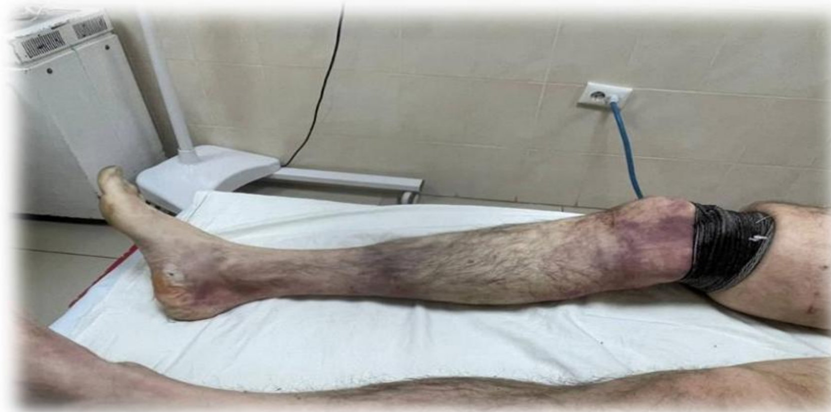

Figure 3.41 – Example of an incorrectly applied bandage

3.30. Composition and features of the use of an individual set of medicines

Use an individual set of medications with AMZI (Figure 3.40) if the victim is conscious, can swallow, and in the absence of contraindications.

Possible contraindications to the use of a set of medicines with AMZI:

Individual intolerance (allergy) Progressive

impairment of consciousness: if the victim becomes disoriented or their level of consciousness decreases, oral administration of medication may be dangerous due to the risk of aspiration (inhalation).

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(e.g., liquids or tablets into the respiratory tract). In such cases, intravenous or intramuscular routes of administration should be preferred if available and appropriate skills are available.

Severe nausea and vomiting: Taking pills orally will be ineffective if the victim cannot keep them down. Furthermore, vomiting can lead to dehydration and other complications, which is critical in combat conditions.

Signs of shock present
Severe injuries/injuries to the face, head, chest
Abdominal (belly) injuries/injuries

The set of medicines at AMZI includes:
Paracetamol 500 mg – 2 tablets;
Meloxicam 15 mg – 1 tablet, or 7.5 mg – 2 tablets;
Moxifloxacin 400mg or levofloxacin 500mg - 1 tablet

A medication kit containing an antibiotic, painkiller, and anti-inflammatory drug is option #1 and should be used by service members who have mild to moderate pain.

Another advantage is that neither drug causes sedation. and does not alter the level of consciousness of the victim, so they are able to provide pain relief without reducing combat effectiveness. In this way, we avoid the logistical difficulties associated with the need for monitoring during the administration of certain drugs.

However, the use of antibiotics is only recommended if there is open wounds (bullet wounds, shrapnel wounds, etc.).

Figure 3.42 – Set of medications included in an individual set of medicines

4. Providing assistance to victims in the safe zone (Evacuation stage)

4.1. Principles of preparing a victim for evacuation

Until the victim is transferred to medical personnel for the next stage of evacuation, it is necessary to constantly, but not less often than every 15-20 minutes, conduct a complete re-examination of the trauma and re-assessment of the victim's condition using the MARCH PAWS algorithm.

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Regarding bleeding control, this means re-checking any tourniquets to confirm their effectiveness and control of bleeding, the absence of a peripheral pulse if necessary. Tamponades, pressure dressings and knotted (improvised) bandages should be re-checked to ensure there is no sign of re-bleeding.

If necessary, perform the following actions:

re-tightening of the turnstiles, or applying additional turnstiles;

assess the feasibility and conduct a conversion or "relocation" of turnstiles (in the absence of contraindications), if this has not been done before;

applying pressure bandages (including on the neck, armpit, groin), if this has not been done before;

providing care for any open chest wounds that are not properly bandaged;

replacement (if necessary) and application of new pressure bandages;

providing assistance for any injuries to the abdomen, eyes, or head that are still open/unprotected;

immobilize the identified fractures with available means, if this has not been done done before;

give the victim a set of medicines with AMZI (if necessary and in the absence of contraindications);

prevent hypothermia by using a thermal blanket or other methods;

Prepare for evacuation of a victim with suspected neck, pelvic, or spinal injuries.

Any re-interventions should follow the same sequence as for a newly discovered life-threatening wound. For example, if you are packing a wound, you should ensure that pressure is maintained for a full 3 minutes before checking the effectiveness of the packing and applying a pressure dressing.

IMPORTANT! *Re-evaluate, re-evaluate, re-evaluate!*
Self-check rule: "A fool worked before me, even if it was me!"

Before starting the evacuation, you must:

conduct a constant review of the victim according to the MARCH algorithm PAWS;

fill out the "Victim Card" and attach it to the victim;

secure all ends of bandages and dressings;

secure blankets/wraps used to prevent hypothermia;

ensure that personal weapons and personal equipment are transported with the casualty, unless otherwise instructed by the commander (requirements of governing documents);

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be ready for the arrival of evacuation transport;
ensure safety, camouflage and security of the evacuation site.

Communicate:

with the victim – encourage, reassure, and explain what kind of assistance you are providing;

with tactical command – provide command with information regarding the location and condition of the casualty;

with medical personnel – provide the evacuation team with information about victim according to the MIST report.

4.2. Features of psychological support and communication with victims

Physical injuries/traumas sustained during combat are often accompanied by profound psychological trauma and stress. Such a victim needs communication and interaction with those providing assistance.

Basic rules of communication when providing assistance the victim has:

Continue the task if necessary – provide appropriate assistance if this has not been done previously.

Expect a service member with minor injuries to be ready to engage. Remain calm at all times;

ask clear questions, give commands, and monitor the interaction.

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Maintain constant contact with the casualty: inform him about the status of his injury/ trauma and further actions regarding his evacuation. Provide him with the necessary information regarding the course of events (tactical situation, objectives, expectations), provide him with support and calm him down.
Control the spread of rumors.
Try to restore the victim's self-confidence, talk about the good. Distinguish between the deceased and the injured, as their interaction can increase the level of traumatization!

If the victim is able to drink, provide him with water as soon as possible and give him a chance to rest. Allow him to talk, do not minimize his feelings, grief or anxiety. Listen to him and give practical advice.

4.3. Features of communication with medical personnel and transmission information about the victim and his condition (according to the MIST report)

Communication with the command regarding existing losses, casualties, and evacuation requirements is important at all stages of tactical pre-hospital care. Such communication should be initiated as soon as possible and maintained during the provision of care so that the unit command clearly understands the state of affairs and their impact on the further implementation of the task and the prospects for evacuation. Communication regarding the number, condition, and evacuation of casualties is conducted by a designated person responsible for this in the unit.

First, you need to convey the information that is available at the beginning, and it:

number of victims;
what is the category of evacuation of the victim;
who was injured (commander/non-command personnel);
whether the victim is able to continue to participate in the task;
number of deaths.

When transferring the victim to the evacuation team or medics – verbally transmit the MIST report. For the evacuation team, such information will be very relevant at the initial stage, since the medics will know everything they need, and if the information is recorded, they will not be able to forget it. This information will also allow you to provide the necessary assistance to the victim, and the recorded data will analyze the dynamics of his condition to understand what level of care to provide him with and how much time they have for it.

The MIST report consists of the following information:

M Mechanism of injury/trauma (gunshot, explosive, blunt, open, long-term compression, thermal, cold, CBRN).

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I Information about injuries (location, type: injury/trauma)
limbs, traumatic complete or partial amputation, wounds/injuries to the abdominal cavity, eyes, head, burns, suspected neck, pelvis, spine injury, etc.).

C Symptoms (state of consciousness, airway patency, presence of shock, pain level, etc.).

T Therapy (assistance provided, tourniquets applied and time of their application, medications used (quantity, dosage, etc.).

Provide additional information that may be useful to the medic or evacuation team. Help prepare the casualty for further transportation.

Document:

- results of the victim's examination;
- medical care provided;
- changes in the victim's condition.

4.4. Features of filling out the “Victim Card”

The documentation includes a medical information card – “Victim Cards” (hereinafter referred to as the card) (Figure 4.1). After filling it out, it is necessary to attach the card to the victim in any way.

Міністерство оборони України **КАРТКА ПОСТРАЖДАЛОГО** Форма № 002/о Наказ МОУ __.__2025 №__

1 Загальна інформація

Дата події ____.____ ______рік Час події ____:____

Евакуаційна категорія: ☐ Термінова(I) ☐ Пріоритетна(II) ☐ Звичайна(III)

ПІБ ______________________

ДН ____.____ ______рік Стать: ☐ Ч ☐ Ж ID ____________

В/ч ____________ В/звання ____________ Алергія ____________

2 Механізм

☐ Вогнепальна ☐ Вибухова ☐ Тупа ☐ Відкрита ☐ Тривале стиснення
☐ Теплова ☐ Холодова ☐ ХБРЯ

Тип: ☐ Проникна ☐ Непроникна
☐ Інше: ______________________

3 Травма

Турнікет права рука
Назва ____________
Накладено ____:____
Знято ____:____
Переміщення ____:____
Конверсія ____:____

Турнікет ліва рука
Назва ____________
Накладено ____:____
Знято ____:____
Переміщення ____:____
Конверсія ____:____

Турнікет права нога
Назва ____________
Накладено ____:____
Знято ____:____
Переміщення ____:____
Конверсія ____:____

Турнікет ліва нога
Назва ____________
Накладено ____:____
Знято ____:____
Переміщення ____:____
Конверсія ____:____

4 Життєві показники

Час	:	:	:	:
Частота дихання				
SpO_2				
Пульс				

Міністерство оборони України **КАРТКА ПОСТРАЖДАЛОГО**

5 Надана допомога

M: ☐ Кінцівки TQ ☐ Вузловий TQ ☐ Абдомінальний TQ
☐ Тампонування ☐ Гемостатичний бинт
☐ Тиснуча пов'язка ☐ Інше ____________

A: ☐ Прохідні ☐ O_2 ______ л/хв ☐ НФП ☐ НГП ☐ Кріко

R: ☐ Дихальний мішок Декомпресія: ☐ П ☐ Л
Оклюзійна наліпка: ☐ П ☐ Л ☐ Вентильована ☐ Невентильована

C: Судинний доступ: ☐ В/В ☐ В/К

Інфузійна терапія

	Назва	Об'єм	Шлях введення	Час
Розчин				:
				:
Кров/компоненти				:
				:
Суха плазма				:

Лікарські засоби

	Назва	Доза	Шлях введення	Час
Анальгетик (наприклад: фентаніл, парацетамол)				:
				:
				:
Антибіотик (наприклад: моксифлоксацин)				:
				:
				:
Інші (наприклад: транексамова кислота)				:
				:

H: Профілактика гіпотермії: ☐ А ☐ П Засіб ____________
☐ Набір ЛЗ Щиток на око: ☐ Л ☐ П Іммобілізація ____________

6 Додаткова інформація

Нотатки: ______________________

ПІБ ______________________ В/ч ____________

Дата ____.____ ______рік Підпис ____________

Figure 4.1 – “Victim Card”

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By filling out the "Victim Card", we record all injuries and the amount of care provided to the victim at the pre-hospital stage. The card allows for the exchange of information about the care provided to the victim at the scene of the injury for continued care. It ensures that the victim receives the best possible care. Therefore, the card is a mandatory medical document.

The card not only helps during treatment, but in particular, it helps to resolve issues regarding further treatment and rehabilitation for disability through the assessment of the fighter's incapacity. It is advisable to fill out the
section with personal information **in advance,** and then place the card **in the AMZI.** This section also contains information about the place and time of receiving wounds/ injuries.

Instructions for filling out the "Victim Card":

1. Item "General Information" 1.1 In the
"Event Date" field, enter the date in the format dd.mm.yyyy. For example, 05.05.2023.

1.2 The "Event time" field is specified in the format h:min, i.e. the hour and minute are recorded as two-digit numbers in 24-hour format. For example, 22:05.

1.3 In the "Evacuation Category" field, the appropriate evacuation category of the casualty is indicated. A list of evacuation categories is provided in Appendix 2 to these Instructions. Please note that these are examples only and the evacuation category of a particular casualty may need to be modified based on the results of the review during the Tactical Shelter Assistance phase.

1.4 The "Last name" field shall indicate the last name, first name, and patronymic (if available) of the victim. The "unknown" mark shall be indicated in the absence of identifying data.

1.5 The "Date of Birth" field indicates the victim's date of birth (in the format dd.mm.yyyy).

1.6 The "Gender" field indicates the gender of the victim: "M" – male, "F" – female.

1.7 The "ID" field indicates the personal number of the serviceman or his registration number of the taxpayer registration card.

1.8 The "Military unit" field indicates the number of the military unit where the injured person serves.

1.9 The "Ranking" field indicates the military rank of the victim.

1.10 The "Allergy" field shall indicate "no", "unknown" or "yes". If "yes" is indicated, the medication to which the victim is allergic shall be indicated in parentheses.

2. Point "Mechanism"

2.1 This item contains information about existing injuries (injuries, lesions) according to the examination conducted by the aid provider and information about the circumstances of the injury (according to the victim or the person accompanying him).

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2.2 The field “Firearm” is indicated when tissues and organs are damaged with a violation of the integrity of their covering (skin, mucous membrane or serous membrane), which

caused by firearms. By the type of projectile that injures: bullets, shrapnel (standard shrapnel elements, irregularly shaped fragments), non-scattered projectiles (balls, arrow-shaped), secondary striking elements (glass, stone, ice, brick).

2.3 The “Explosive” field is marked for injuries resulting from an explosion and includes the effects on the body of a blast wave, thermal energy, and chemicals.

2.4 The “Blunt” field is marked when there are injuries caused by a blow with a blunt object without penetration through the skin. Includes, but is not limited to: abrasion, bruise, hematoma, closed fracture, concussion.

2.5 The “Open” field is marked if there are injuries caused by sharp or blunt objects, when they penetrate the skin. Includes: cut, stabbed, torn, chopped, bitten, crushed, crushed, bruised, traumatic amputations, mixed.

2.6 The field “Prolonged compression” is marked when there are injuries resulting from prolonged compression of soft parts of the body. Includes: prolonged compression syndrome

compression (compartment syndrome/crash syndrome).

2.7 The “Heat” field is marked in the presence of injuries or damage, caused by exposure to high temperatures.

2.8 The “Cold” field is marked in the presence of injuries or damage, caused by the effects of low temperatures.

2.9 The “CBRN” field is marked if there is a chemical, biological, radiological or nuclear attack or suspicion of it.

2.10 The “Infiltrated” field is marked if there is or is suspected of penetrating trauma.

2.11 The “Impervious” field is marked in the absence of signs of permeable injuries.

2.12 The “Other” field indicates other mechanisms of injury.

3. Item “Injuries”

3.1 The location of the injuries should be marked on the drawing with a mark – “X”. In the case of a combined injury, several injuries within different anatomical and functional areas are indicated. In the case of using a mechanical type of bleeding stop (hereinafter referred to as a tourniquet), the location is indicated on the drawing and the name of the tourniquet and the time when it was applied, removed, moved or converted are indicated in text. The corresponding column is filled in if there is one or more performed actions with the use of a tourniquet.

3.2 The “Tourniquet right arm” field is filled in if the tourniquet is applied to the right upper limb.

3.3 The “Left arm tourniquet” field is filled in if the tourniquet is applied to the left upper limb.

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3.4 The “Tourniquet right leg” field is filled in if the tourniquet is applied to the right lower limb.

3.5 The “Left leg tourniquet” field is filled in if the tourniquet is applied to the left lower limb. 3.6 The

“Name” field indicates the name of the tourniquet.

3.7 The “Imposed” field indicates the time the turnstile was imposed.

3.8 The “Removed” field indicates the time the turnstile was removed.

3.9 The “Movement” field indicates the time of movement of the turnstile.

3.10 The “Conversion” field indicates the time of the turnstile conversion.

4. Item “Vital signs”

4.1 The “Vital indicators” table is filled in after each determination of the specified indicators.

4.2 The “Time” column indicates the time of determination of the corresponding indicator in in hour/minute format.

4.3 The column “Respiratory frequency” indicates the number of respiratory movements per one minute.

4.4 The “SpO2” column indicates the oxygen saturation level in the blood.

4.5 The “Pulse” column indicates the pulse rate per minute and the location of its determination (central or peripheral).

4.6 The “Blood Pressure” column indicates the blood pressure pressure in mm Hg.

4.7 The “Level of consciousness (AVPU)” column indicates the level of consciousness, determined on the AVPU scale.

4.8 The column “Pain Scale (0-10)” indicates the score (from 0 to 10) determined by the numerical pain scale. If the vital sign was not determined, “–” (a dash) should be entered in the corresponding cell.

5. Item “Assistance Provided”

5.1 Includes the scope of all care provided, including the transfer of the victim to the next provider or medical support role, and is consistent with the MARCH PAWS victim care algorithm.

5.2 The “Limbs TQ” field is marked when a tourniquet is used for the limbs. The additional field indicates the trade name of the tourniquet used. 5.3 The “Nodal TQ” field

is marked when a tourniquet is used for “nodal” areas of the body. The additional field indicates the trade name of the tourniquet used.

5.4 The “Abdominal TQ” field is marked when using abdominal

turnstile. The additional field indicates the trade name of the turnstile used.

5.5 The “Tapping” field is marked when tamping is performed wounds.

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5.6 The “Hemostatic bandage” field is marked when the wound is packed with a hemostatic bandage. The trade name of the bandage used is indicated in an additional field.

5.7 The “Pressure bandage” field is marked when a pressure bandage is applied. An additional field indicates the product used and its trade name (if available).

5.8 The “Other” field indicates other means used to stop bleeding.

5.9 The “Patient” field is checked if no additional measures are required to ensure airway patency.

5.10 The “O2” field is marked if oxygen is being administered to the victim. An additional field indicates the instrument and type of respiratory mask for oxygen delivery.

5.11 The field “NFP” is marked if the airway is maintained by a nasopharyngeal airway. The additional field indicates the trade name of the airway used and its size.

5.12 The “NGP” field is marked if the airway is maintained by a supraglottic airway. The additional field indicates the trade name of the airway used and its size.

5.13 The “Crico” field is marked if a cricothyrotomy was performed to ensure airway patency. An additional field indicates the trade name of the agent used (if available) and the size of the tracheostomy tube.

5.14 The “Breathing bag” field is marked if the ventilation with a breathing bag.

5.15 The “Decompression” field is marked if needle decompression was performed; the “P” field is marked if decompression was performed on the right, “L” – on the left. The additional field indicates the trade name of the agent used and the place of decompression.

5.16 The field “Occlusion sticker” is marked if an occlusion sticker was applied for chest injuries; the field “P” is marked if the sticker was applied on the right side, “L” – on the left side. The field “Ventilated” is marked if a ventilated sticker was used, “Non-ventilated” is marked if a non-ventilated sticker was used. The additional field indicates the trade name of the product used.

5.17 In the “Vascular Access” field: “I/V” is indicated if vascular access is provided using a peripheral

intravenous cannula; the “I/C” field is indicated if vascular access is provided using a device for

Intraosseous infusion. An additional field indicates the size of the intravenous cannula, the trade name of the intraosseous infusion device, and the location of the intraosseous needle.

5.18 The “Infusion therapy” table is filled in if fluid resuscitation is performed: The “Name” column indicates the trade name of the infusion

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solution and concentration of the applied solutions in percent (if available). The "Volume" column indicates the volume of the administered fluid in milliliters. The "Route of administration" column indicates the route of administration used for infusion therapy. The "Time" column indicates the time of the start of the administration of the resuscitation fluid. The "Solution", "Blood/components", "Dry plasma" lines indicate information on the name, volume, route of administration and time of infusion therapy with the corresponding drugs and/or blood and its components.

5.19 The "Medicines" table is filled in if medicines are used during the provision of care: The "Name" column indicates the names of medicines in Ukrainian and, if available, the concentration of the administered medicines in percent. The "Dose" column indicates the dosage of the administered medicine. The "Route of administration" column indicates the route of administration of the medicine used (for example: P/O – oral, I/V – intravenous, I/C – intraosseous, I/M –

intramuscular, P/S – subcutaneous, I/N – intranasal).

The "Time" column indicates the time of administration of the respective medication. The "Analgesic" row indicates information on the name, dosage, route, and time of administration of the medication used for pain relief.

The line "Antibiotic" contains information about the name, dosage, the route and time of administration of the antibacterial drug used.

The "Other" line indicates information on the name, dosage, route and time of administration of the drugs used that are not included in the "Analgesics" and "Antibiotics" categories.

5.20 The field "Prevention of hypothermia" is marked if measures are taken to prevent/treat hypothermia; field "A" is marked if active methods are used, "P" – passive methods.

5.21 The "Method" field indicates the type or name of the method used for prevention/treatment of hypothermia.

5.22 The "Set of Medicines" field indicates the use of medicines with medical, combined-arms, individual first aid kits.

5.23 The "Eye Shield" field is marked if an eye shield was applied; the "R" field is marked if applied on the right side, "L" – on the left side.

5.24 The "Immobilization" field is marked if immobilization is performed. Additionally, the anatomical area to which immobilization was applied, the type or name of the tool used, is entered.

6. Item "Additional information"

6.1 The "Notes" field is used to record additional information about the victim and/or the treatment and manipulations performed.

6.2 The "Last Name" field indicates the last name and first name of the person providing assistance.

6.3 In the "VCh" field, the number of the military unit where the person is serving is indicated. helper.

6.4 The "Date" field indicates the date of assistance in the format dd.mm.yyyy.

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6.5 The “Signature” field is used for the personal signature of the sender help.

6.6 If, when completing the card, the provider did not have enough space to document the necessary information, an additional card can be attached to the already completed card and continue recording the necessary information, having previously noted the victim's full name on it.

6.7 The provider certifies the authenticity of the information entered into the card with a personal signature.

Items 5.3; 5.4; 5.10; 5.12; 5.13; 5.14; 5.17; 5.18 – the items indicated for completion are within the competence of medical personnel at higher evacuation levels.

4.5. Use of soft, flexible, rigid and improvised stretchers

Currently, the personnel of combat units can be provided with a significant variety of stretchers for moving (carrying) victims. This variety of types and designs is primarily associated with extensive volunteer activities. Stretchers that are delivered to the front line can be certified in the armed forces of other countries, or can be of their own design. Some samples of such stretchers do not fully meet the requirements for their purpose, others are made of sufficient quality.

Soft stretchers (Figure 4.3) are designed for carrying the injured person. They are made of a thick fabric, sewn with reinforcing tapes. They can be designed for four, six or eight carriers. The optimal number of carriers is six.

Soft stretchers have a number of advantages, namely: compact dimensions when folded and light weight, the ability to use in narrow, winding passages, and reliable fixation of the victim.

The disadvantage of using soft stretchers is the need to use a group of 4-6 people to carry the victim, who will be a priority target for enemy weapons.

The evacuation of the victim is carried out feet first. This is due to the fact that, according to statistics, those who are in front fall more often, and also to the fact that the senior in the group of “carriers” must constantly visually assess the condition of the victim by looking at his face and not be distracted by the road.

Figure 4.3 – Soft stretcher

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Flexible stretchers – “stretchers-drags” (Figure 4.5) help to facilitate the movement of the victim. For this purpose, plastic stretchers are used, as well as with the help of improvised materials (for example, a raincoat-tent or a blanket). *Flexible stretchers-drags have several advantages, especially in extreme conditions and when evacuating victims in difficult landscapes:*

1. Versatility – can be used on different surfaces (snow, sand, forest terrain, mountains). The advantages of using such devices are a significant reduction in friction when dragging the victim on the ground, especially in winter, when the drags act as sleds for moving the victim.

2. Compactness – easily folded and take up minimal space when transportation.

3. Lightness – made of light but strong materials, which makes them easy to carry carrying. 4. Ergonomics – evenly distribute the load, which reduces discomfort for the victim. 5. Resistance to weather conditions – do not absorb moisture, resistant to low temperatures. 6. Ease of use – allow even one person to quickly secure the victim and transport him, which reduces the number of servicemen during evacuation to a minimum, without involving a large group during evacuation.

7. Safety – reliable fixation of the patient reduces the risk of additional injuries during evacuation. 8. Possibility of transportation in any position – the victim can be carried or pulled horizontally, at an angle or even vertically in confined conditions (for example, in narrow aisles).

9. Compatibility with other rescue equipment – they can be used together with ropes, winches and even as a support for others nosh.

10. Additional protection for the victim - the material can serve as a barrier against wind, cold or dirt. 11. Water resistance - some models allow transportation by water or swamp.

12. High load capacity – withstands heavy loads, suitable even for evacuating people in heavy equipment. 13. Cost-effectiveness – compared to rigid stretchers, they are cheaper with similar functionality. 14. Ease of disinfection – materials are easy to wash, which is important for medical and rescue operations.

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Figure 4.5 – Stretcher-puller

Rigid folding stretchers (Figure 4.4) come in various types. As of 2025
Unified medical stretchers are in the equipment of the Armed Forces of Ukraine. The medical stretchers have a length of 2 m 21.5 cm, a width of 55 cm and a height of 16 cm. The stretchers are stored and transported in a folded state. Unified medical stretchers are the official property of the battalion medical post, as well as the necessary property of all medical vehicles.

Figure 4.4 – Rigid stretcher

For transporting the victim, it is best to use specialized transport in a favorable tactical situation; in its absence, transportation should be carried out using any means of transportation available in a particular situation. In the most unfavorable conditions, the victim has to be carried on hands, on specialized or improvised stretchers, on a tarpaulin, etc. Transportation can last from several minutes to several hours. The person providing assistance is obliged to ensure the correct transfer of the victim, transfer him from one vehicle to another, provide tactical pre-hospital care on the way, and take measures to prevent complications that may arise as a result of transport immobilization, due to vibrations and other reasons.

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When moving a casualty on a stretcher, it is important to ensure that his head and neck are level with the body and that the airway remains clear.

Two people are required to place the victim on a stretcher. To do this, the stretcher should be placed to the side of the victim, one rescuer should grasp the victim's chest with one hand and fix the head with the other, the second rescuer should grasp the lower leg with one hand from above and the thigh with the other hand from below. The victim can also be transferred to a soft stretcher, using a stable lateral position, if there is no suspicion of neck, pelvis, or spine injury.

Victims with suspected neck, pelvic, or spinal injuries should be transported only on a transport medical board, which, if unavailable, can be replaced with a long wooden board with the victim necessarily secured to it using improvised means.

On a flat surface, it is correct to carry the victim on a stretcher with the feet forward. Then the rescuer, who is on the side of the head, will be able to monitor the condition of the victim. Rescuers should take short steps, not in step, preventing the stretcher from shaking. When descending, the victim should be carried with the feet forward, and when ascending, on the contrary, with the head forward. On steep climbs and descents, special attention should be paid to maintaining the horizontal position of the stretcher, for which the rear end of the stretcher should be raised when moving uphill, and the front end when moving downhill.

The victim is loaded into the transport with his head forward. The victim is transported on a non-specialized transport in a position that his condition allows (in the absence of contraindications), and in a favorable tactical situation on a specially equipped sanitary/medical transport.

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FINAL PART

These reference materials were developed by the head of the tactical medicine group of the Medical Forces Command of the Armed Forces of Ukraine, Senior Sergeant Mykola KOMPANIYTS, and the TVO staff sergeant 2nd rank of the tactical medicine group of the Medical Forces Command of the Armed Forces of Ukraine, Sergeant Serhiy BULA.

By following the MARCH sequence, performing a rapid assessment of the victim, and using the lifesaving skills this course teaches you, YOU CAN SAVE LIVES! Your job is to act!

Provide life-saving care to the best of your ability. Document the care you provide so that this information can be passed on to subsequent evacuation stages to ensure continuity of care. Assist with evacuation arrangements so that the casualty receives comprehensive medical care as quickly as possible.

Constantly learn and improve your knowledge and skills in tactical prehospital care.

All questions regarding these reference materials should be sent to the address: 03168, Kyiv, Povitroflotskyi Avenue, 6, to the Command of the Medical Forces of the Armed Forces of Ukraine or “SEDO M” – index 510, (developers’ contact phone number 33 872).

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