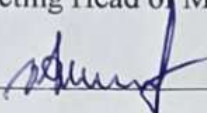



MINISTRY OF HEALTH OF UKRAINE
NATIONAL PIROGOV MEMORIAL MEDICAL UNIVERSITY, VINNYTSYA

<p>«APPROVED» at Methodical Council of surgical disciplines Protocol № <u>5</u> from <u>19/03/2025</u> Acting Head of Methodical Council</p> <p> Serhiy KHIMICH</p>	<p>« AGREED » Head of the examination commission №3 «<u>20</u>» <u>March</u> 2025p.</p> <p> Vadym ZHEBEL</p>
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EXAM MATERIALS

STATION №4 “PREMEDICAL AND EMERGENCY MEDICAL CARE”

SPECIALTY

222 Medicine

EDUCATIONAL PROGRAM

«Medicine»

FACULTY

Faculty of Foreign Citizens Training

Vinnytsya - 2025

APPENDICES OF EXAMINATION MATERIALS

1. Instructions for students to work at the station (Appendix 1)
2. List of emergency conditions at the station (Appendix 2)
3. Algorithms for performing practical skills (Appendix 3)
4. Sample task (appendix 4)
5. Regulatory documents (Annex 5)

Application 1

INSTRUCTIONS FOR WORK AT STATION № 4 «Pre-medical and emergency medical care»

The applicant for higher education (HE) must greet the examiner and present the identification number that was assigned during the registration for the PGCE. The applicant receives a clinical task, which involves communication with the patient, interviewing complaints and anamnestic data, and conducting a certain objective examination.

The following competencies are assessed: objective examination, manipulation, diagnosis, tactics and treatment, prevention.

WHEN WORKING WITH A STANDARDIZED PATIENT: ADMITTING A PATIENT IN THE HOSPITAL EMERGENCY DEPARTMENT.

Stopping external critical bleeding

- greet, introduce yourself and inform the patient (mannequin) that you are going to examine him/her
- name the signs of critical external bleeding
- assess the state of consciousness according to the AVPU
- ensure their own safety
- inform the victim that manipulations may cause unpleasant, painful sensations
- apply direct pressure to the wound, use a cotton scarf
- if the bleeding does not stop after direct pressure on the wound, apply a tourniquet
- apply an aseptic dressing to the wound
- if the bleeding stops after direct pressure on the wound - perform tamponade of the wound and apply a pressure dressing
- in case of an amputated limb, apply a S.A.T. tourniquet and fix the amputated limb with a headscarf
- Identify the emergency condition
- determine the tactics and treatment (notify the Emergency Medical Service)
- determine prevention (compartment syndrome, effectiveness of tamponade and pressure dressing)

WHEN WORKING WITH A STANDARDIZED PATIENT: AN APPOINTMENT IS MADE AT THE HOSPITAL'S EMERGENCY ROOM.

Cardiopulmonary resuscitation

- Greet, introduce himself/herself and inform that he/she is to examine the patient (manikin).
- Assess airway patency and ensure airway patency, and prescribe interventions according to findings.
- Determine the PD, prescribe interventions according to the findings.
- determine the color of the skin, the presence of a pulse, compare the pulse on the central and peripheral arteries.
- determine access to the patient's vascular bed.
- Demonstrate the use of an AED and defibrillator, cardiac monitor information, use of medical equipment (airways, laryngeal masks of various configurations, laryngoscope, endotracheal tube, Ambu bag, ventilators, face mask, combi-tube.
- Use manicure devices.
- Perform basic and advanced CPR.
- Determine the importance of further diagnosis and treatment at the extended stage of CPR.
- Prescribe specific examination and intensive care depending on the cause of circulatory and respiratory arrest.
- assess the state of consciousness, determine the reaction of the pupils to light, and prescribe glucose, lactate, and tropanin levels
- prescribe biochemical and laboratory tests of blood and biological fluids
- assess the skin for rash, trauma, injection marks, and prescribe interventions according to the findings
- Interpret and prescribe blood sampling for electrolytes and blood gases.
- Analyze cardiac monitoring indicators and determine heart rhythms.
- Identify the emergency condition.
- determine tactics and treatment.
- determine prevention.

When working with a clinical task - to perform tasks related to the interpretation of objective examination, manipulation, diagnosis, determination of patient management tactics, prescribing treatment for an emergency (listing groups of drugs and representatives) and providing preventive recommendations (including treatment of the underlying disease).

After completion of the task or expiration of the time spent at the station, return the task to the teacher, wait for the signal about the end of the time spent at the station, and leave the station. The examiner does not accept answers after the end of the time at the station. The examiner is an observer of your actions and does not provide instructions, comment or question you.

After passing the first station, the student must move to another station according to the route sheet.

The duration of the station is 8 minutes.

It is **FORBIDDEN** to communicate with the examiner, use study and auxiliary materials, use gadgets, transmit, copy, and distribute any information related to the exam that is not publicly available. If a higher education applicant violates the above rules, the exam is terminated and the grade for the exam is “failed” (violation of the rules of academic integrity).

LIST OF EMERGENCY CONDITIONS AT THE STATION

№	Діагноз	Симптом	Маніпуляція (або діагностика...)
1	Critical external bleeding (wound from a piece of glass in the upper third of the right thigh)	an increasing pool of blood, blood-soaked clothes	Direct pressure on the wound, applying a tourniquet, determining the distal pulse, applying an aseptic dressing, and signs of hemorrhagic shock,
2	Critical external bleeding (amputated limb at the level of the middle of the lower leg).	an increasing pool of blood, blood-soaked clothes, amputated limb	Determination of the condition of the amputated limb, application of the S.A.T. tourniquet, fixation of the amputated limb with a scarf, signs of hemorrhagic shock
3	Critical external bleeding (lacerated wound in the area of the inner surface of the lower third of the left shoulder)	a pool of blood that is growing, blood-soaked clothes,	Application of the S.A.T. tourniquet, determination of the distal pulse, application of an aseptic dressing, signs of hemorrhagic shock, determination of distal pulse
4	Critical external bleeding (laceration of the middle of the thigh as a result of an accident)	a pool of blood that is growing, blood-soaked clothes,	Direct pressure on the wound, tamponading the wound, applying a pressure dressing, signs of hemorrhagic shock
5	Clinical death (septic shock, purulent wounds of the trunk, chest, and extremities)	Lack of breathing, heartbeat, consciousness, dilated pupils, multiple purulent wounds	Cardiopulmonary resuscitation, wound dressing, hemodynamic stabilization.
6	Clinical death (anaphylactic shock)	Lack of breathing, heartbeat, consciousness, dilated pupils, (allergic reaction to colistin)	Cardiopulmonary resuscitation, epinephrine, antihistamines, glucocorticosteroids.
7	Clinical death (hypovolemic/hemorrhagic shock)	Lack of breathing, heartbeat, consciousness, dilated pupils, (critical external bleeding)	Cardiopulmonary resuscitation, tourniquet application, infusion and transfusion therapy.
8	Clinical death (household electric shock)	Lack of breathing, heartbeat, consciousness, dilated pupils, (household electric shock, ventricular fibrillation)	Cardiopulmonary resuscitation, AED, defibrillation.
9	Clinical death (acute renal failure, hypokalemic cardiac arrest)	Lack of breathing, heartbeat, consciousness, dilated pupils, (anuria for 3 days, hyperkalemia, 8 mmol/L, ECG)	Cardiopulmonary resuscitation, hemodialysis, IV glucose, calcium chloride, cordarone, AED, defibrillation.
10	Clinical death (asphyxiation, foreign body, VSD)	Lack of breathing, heartbeat, consciousness, dilated pupils, aspiration of food, cyanosis, loss of consciousness, coma.	Cardiopulmonary resuscitation, expiratory admission, IUD revision, foreign body removal.
11	Clinical death (morphine overdose)	Lack of breathing, heartbeat, consciousness, dilated pupils, the fact of morphine	Cardiopulmonary resuscitation, naloxone, and a long ventilator.

		use, postinjection wounds on the arms, legs, and neck.	
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Application 3

ALGORITHMS FOR PERFORMING PRACTICAL SKILLS AT STATION № 4 «Pre-medical and emergency medical care»

“Critical external bleeding, first aid”

1. Signs of external critical bleeding.
2. The sequence of the algorithm “Stop the bleeding”.
3. Algorithm for applying the tourniquet S.A.T. (turnstile).
4. Algorithm for stopping external bleeding by tamponading and applying a pressure dressing.
5. Fixation of the amputated limb with a headscarf.
6. Application of a sterile dressing to the wound.

1. Signs of external critical bleeding

Name the signs of external critical bleeding, namely:

- A rapidly expanding bloodstain on/under the victim
- A lot of blood on the clothing
- A pool of blood
- An amputated lower/upper limb above the ankle/wrist joint.

1. The sequence of the “Stop the Bleeding” algorithm

Assess the scene for safety - the scene is safe.

Assess the general impression of the victim (position, signs of critical bleeding, whether the victim is talking).

Call emergency medical services (EMS) 103 (112). Tell the EMS dispatcher quickly and in detail where you and the injured person are and your assessment of the injured person's condition and wound.

Assess the level of consciousness according to the AVPU algorithm - the victim answers your questions, is conscious, and in contact with you - A.

NOTE. All previous actions are performed at the stage of approaching the victim.

Stand to the side of the victim on the side of the wound closest to it.

Apply direct pressure to the wound using a cotton cloth (headscarf) that is available.

If direct pressure on the wound does not stop bleeding, but only slows down, decide whether to apply a tourniquet.

If direct pressure on the wound stops the bleeding, decide whether to perform tamponade and apply a pressure dressing.

Algorithm for applying the S.A.T. tourniquet

Stand to the side of the victim on the side of the wound closest to it.

Replace the pressure on the wound with your hands with knee pressure to prevent blood loss while applying the tourniquet.

Remove the C.A.T. tourniquet from the first aid kit.

Place the tourniquet about 5 to 7 cm (4 fingers) above the wound and directly on the skin or clothing (as appropriate), do not place it over joints or directly on the wound.

Make sure that the limb is relaxed. Do not lift the limb to avoid tension and to prevent air from being sucked in by open veins in the wound.

Place the tourniquet high on the limb with life-threatening bleeding, with the buckle facing you. If it is convenient for you, hold the buckle with your other hand.

Take the tourniquet strap away from you, quickly pull it around the limb toward you - to the buckle. Pass the tourniquet belt tongue through the buckle from the bottom and upward toward you.

Pull the tourniquet strap as tightly as possible, pulling it quickly toward you to quickly and tightly compress the vessels of the limb and stop blood flow in the veins and arteries under the tourniquet.

NOTE: When the tourniquet band is tightened and locked, only the tips of two fingers can fit between the band and the limb.

Route the tourniquet strap away from you around the limb to the brace.

Tighten the tourniquet by twisting the collar until the bleeding stops.

Check the presence/absence of a distal pulse below the tourniquet.

All previous steps should be performed within 1 minute.

Secure the tourniquet in place with the tourniquet lock.

Wrap the free end of the tourniquet around the limb toward you.

Secure the twist and the belt in the bracket with white Velcro tape and write the actual time of the tourniquet application on it, completing the entire process within 3 minutes.

Algorithm for stopping external bleeding by tamping and applying a pressure dressing.

Stand to the side of the victim on the side of the wound closest to it.

Expose and assess the wound.

Remove the hemostatic gauze from the sterile package.

Tightly pack the wound to the bottom so that all the “pockets” of the wound are filled with bandage. Finger(s) should be constantly in the wound, the index finger of the other hand should be used to feed the hemostatic gauze into the wound.

Tamponade so that the material protrudes 2-3 cm above the wound and keep the pressure firm for at least 3 minutes if tamponading with hemostatic gauze. If tamponading with an ordinary bandage or improvised means, maintain pressure for up to 10 minutes.

Reassess to make sure the bleeding has stopped while maintaining pressure.

Apply a pressure bandage with an elastic bandage so that the bandage over the wound is tensioned, and under the wound, loosen the bandage and apply it without tension, fix the bandage.

Check the distal pulse (the pulse should be felt).

Fixation of the amputated limb with a headscarf

After applying the tourniquet to the amputated limb 5-7 cm above the knee or elbow joint in case of amputation in the lower leg or forearm, fix the amputated limb with a headscarf. Carefully place the previously unfolded kerchief with a wide edge under the amputated limb, cover the torn end with the corner of the kerchief, then wrap the amputated limb crosswise with the free edges, fixing the free edge of the kerchief with a pin.

2. Apply an aseptic dressing to the wound

After stopping the bleeding with a tourniquet, apply an aseptic dressing to the wound before transporting the patient. Treat the edges of the wound with a disinfectant solution and remove dirt or other foreign substances from the skin, apply 2-3 layers of sterile napkins directly to the wound, take a roll of bandage in your right hand and the beginning in your left, unwind the bandage from left to right, apply the bandage to the patient's body surface without unwinding it in the air, make sure that the bandage does not form folds, the bandage should cover the entire wound surface and the skin around it by 4-5 cm. Secure the edges of the dressing.

Stages of work	Instructions
Objective examination, assessment of the victim's condition	Assess the safety of the scene, ensure your own safety using gloves, explain to the victim the nature of the interaction at the moment and obtain consent, explain your actions. Assess the position, signs of critical bleeding, whether the victim is talking, note the level of consciousness according to the AVPU algorithm
Execution of the "Stop Bleeding" algorithm	Stand by the side of the victim on the side of the wound closest to it. Apply direct pressure to the wound using a cotton cloth at hand. If direct pressure on the wound does not stop bleeding, but only slows down, decide whether to apply a tourniquet. If direct pressure on the wound stops the bleeding, decide whether to tamponade and apply a pressure dressing.
Technical skill Installation of the S.A.T. turnstile.	Stand to the side of the victim on the side of the wound closest to it. Replace the pressure on the wound with your knee to prevent blood loss while applying the tourniquet. Remove the C.A.T. tourniquet from the first aid kit. Place the tourniquet about 5 to 7 cm (4 fingers) above the wound and directly on the skin or clothing (as appropriate), do not place it over joints or directly on the wound; Make sure that the limb is relaxed. Do not lift the limb to avoid tension and to prevent air from being sucked in by open veins in the wound. Place the tourniquet high on the limb with life-threatening bleeding, with the buckle facing you. If it is convenient for you, hold the buckle with your other hand. Take the tourniquet strap away from you, quickly pull it around the limb toward you - to the buckle. Pass the tourniquet belt tongue through the buckle from the bottom and upward toward you. Quickly pull the tourniquet strap as tightly as possible, quickly pulling it toward you to quickly and tightly compress the vessels of the limb and stop blood flow in the veins and arteries under the tourniquet. Take the tourniquet strap away from you around the limb to the staple. Tighten the tourniquet by twisting the collar until the bleeding stops. Check the presence/absence of a distal pulse below the tourniquet. Secure the tourniquet in place with the tourniquet lock. Wrap the free end of the tourniquet around the limb toward you. Secure the tourniquet and the belt in the bracket with white Velcro tape and write the actual time of tourniquet application on it, completing the entire process within 3 minutes.
Technical skill Stop bleeding by tamponading and applying a pressure dressing.	Stand to the side of the victim on the side of the wound closest to it; expose and assess the wound; take the hemostatic gauze from the sterile package. Tamponade the wound tightly to the bottom so that all the "pockets" of the wound are filled with bandage. Finger(s) should be in the wound at all times, the index finger of the other hand should be used to feed the hemostatic gauze into the wound. Tamponade so that the material protrudes 2-3 cm above the wound and keep the pressure firm for at least 3 minutes if tamponading with hemostatic gauze. If tamponading with a regular bandage or improvised means, maintain pressure for up to 10 minutes. Reassess to make sure that the bleeding has stopped while maintaining pressure; Apply a pressure bandage with an elastic bandage so that the bandage over the wound is tensioned, and loosen the bandage under the wound and apply it without tension, fix the bandage; Check the distal pulse (the pulse should be felt).
Technical skill Application of an aseptic dressing	After stopping the bleeding with a tourniquet, apply an aseptic dressing to the wound before transporting the patient. Treat the wound edges with a disinfectant solution and remove dirt or other foreign substances from the skin, apply 2-3 layers of sterile napkins directly to the wound, take a roll of bandage in the right hand and the beginning in the left, unwind the bandage from left to right, apply the bandage to the patient's body surface

	without unwinding it in the air, make sure that the bandage does not form folds, the bandage should cover the entire wound surface and the skin around it by 4-5 cm. Secure the edges of the dressing.
Technical skill Fixation of an amputated limb with a headscarf	After applying the tourniquet to the amputated limb 5-7 cm above the knee or elbow joint in case of amputation in the lower leg or forearm, we fix the amputated limb with a headscarf. Carefully place the previously unfolded kerchief with a wide edge under the amputated limb, cover the severed end with the corner of the kerchief, then wrap the amputated limb crosswise with the free edges, fixing the free edge of the kerchief with a pin.
Identify an emergency: name the signs of hemorrhagic shock	Rapid pulse (tachycardia), pallor of the skin, cold clammy sweat, impaired consciousness
Tactics and treatment	Call an ambulance 103 (112). Quickly and appropriately tell the dispatcher where you and the injured person are and your assessment of the injured person and his or her wound. Determine the actions of the EMS team (two IV catheters, infusion therapy)
Prevention	Check if the bleeding has resumed, check the presence/absence of pulsation in the injured limb
Completing the exam	

Sequence of student's actions during cardiopulmonary resuscitation:

1. Examine the patient (manikin): examines the scene for the safety of the patient (manikin)
2. calls the patient
3. Puts on gloves,
4. Assesses the presence of chest excursion,
5. Assesses the presence of pulsation on the carotid or femoral artery,
6. Assesses the state of the pupils, consciousness
- 7) Establishes the diagnosis of an emergency (terminal) condition
- 8) Performs manipulation - cardiopulmonary resuscitation according to the ABC or SAV scheme:
9. Heart massage (direct / indirect): position of hands on the border of the middle and lower third of the sternum.
10. Compression depth 5 cm (according to the green manikin sensor)
11. Compression rate 100-120 per minute, ratio of 2 breaths to 30 compressions
12. Inspection and clearing of the upper airway with a finger,
13. Extension of the head in the neck, removal of the root of the tongue.
14. Placement of an airway or laryngeal mask or combo or tracheal intubation or face mask (optional)
15. Artificial lung ventilation (mouth to mouth or mouth to nose; or manual breathing apparatus (Ambu); or automatic breathing apparatus (ALV)) (optional) (excursion of the chest of the manikin)
16. Vein mobilization or intraosseous access.
17. Administration of epinephrine 1.0 ml every 3-5 minutes of resuscitation
18. Administration of specific pharmaceuticals in case of specific cardiac arrest (infusion therapy, adrenomimetics, soda and CaCl₂, glucose in case of hyperkalemia, poisoning with tricyclic antidepressants, etc.)
19. Diagnosis of cardiac ventricular fibrillation (cardiac monitor, defibrillator, AED)
20. In case of fibrillation - AED or defibrillation.
21. In the absence of effect (restoration of sinus rhythm), Cordarone (300 mg + 150 mg IV, in the absence of effect - lidocaine).
22. Check for reversible causes of clinical death.
23. List the principles of prevention of the underlying disease that led to cardiac arrest

SAMPLE TASKS

Station № 4 «Pre-medical and emergency medical care»

«Critical external bleeding, first aid»

Clinical situation №1

On a beautiful sunny day, you walk down the sidewalk on business and see a man coming out of a hardware store carrying glass. Stumbling, the man falls and breaks the glass, a piece of which gets stuck in the upper third of his right thigh. Before your eyes, the man removes the glass from the wound, after which blood flows out of the wound in a jet under pressure. You brought a first aid kit with you.

1. Take care of your own safety
2. Name the signs of critical bleeding, determine consciousness by AVPU
3. Start the algorithm "Stop the bleeding", apply direct pressure to the wound - bleeding does not stop
4. Apply a tourniquet C.A.T.
5. Apply an aseptic dressing
6. Identify the emergency: name the signs of haemorrhagic shock
7. Notify the Emergency Medical Service and determine their further actions
8. Check for renewed bleeding and recheck the distal pulse

CHECKLIST OF OSP(K)I STATION EVALUATION

<u>№ з/п</u>	<u>Components of the evaluated clinical case</u>	<u>Number of points per position</u>	<u>Number of student points</u>
1.	<u>Objective examination</u>	0,9	
	<u>inspect the scene for safety</u>	0,15	
	<u>put on gloves</u>	0,15	
	<u>name the signs of critical bleeding:</u>		
	<u>an increasing pool of blood</u>	0,15	
	<u>blood-soaked clothes</u>	0,15	
	<u>torn limb</u>	0,15	
	<u>noted the level of consciousness of the victim</u>	0,15	
3.	<u>Manipulation</u>	3,0	
	<u>Stand on the side of the victim on the side of the wound closest to it</u>	0,15	
	<u>apply direct pressure to the wound using a cotton scarf</u>	0,3	
	<u>replaced the pressure on the wound with the knee</u>	0,3	
	<u>take a tourniquet from the first aid kit</u>	0,15	
	<u>wrap the tourniquet tape around the limb and pass the end of the tape through the buckle slot from the bottom up</u>	0,15	
	<u>apply the tourniquet about 5-7 cm above the wound, tightly pull the self-adhesive tape of the tourniquet and secure the tape along its entire length around the limb (but not over the tourniquet fixators)</u>	0,45	
	<u>twisted the tourniquet until the bleeding stopped.</u>	0,15	
	<u>Secure the tourniquet in place with the tourniquet lock.</u>	0,15	

	<u>Checked for the presence/absence of a distal pulse below the tourniquet.</u>	0,3	
	<u>Fixed the time tape. Recorded the time of the tourniquet application to the torsion harness</u>	0,3	
	<u>completed the process within 3 minutes.</u>	0,15	
	<u>Applied an aseptic dressing to the wound</u>	0,45	
5.	<u>Diagnosis: name the signs of hemorrhagic shock</u>	0,9	
	<u>Rapid pulse, tachycardia</u>	0,3	
	<u>Pallor of the skin, cold sticky sweat</u>	0,3	
	<u>Disturbance of consciousness</u>	0,3	
6.	<u>Tactics and treatment</u>	0,6	
	<u>Notify the emergency medical service</u>	0,3	
	<u>Determine the actions of the EMS team (two IV catheters, infusion therapy)</u>	0,3	
7.	<u>Prevention</u>	0,6	
	<u>Check if the bleeding has not resumed</u>	0,3	
	<u>Check the presence/absence of pulsation in the injured limb</u>	0,3	

Situational task, which is practiced at station №4

«Pre-medical and emergency medical care»

Situational task № 1

A 21-year-old soldier is being treated in a military hospital due to a combat injury and multiple wounds to the face, torso, and lower extremities. A few hours ago, he underwent a long traumatic operation, and in the postoperative period, anesthesia was performed: paracetamol 1 g once intravenously, Keiver 2.0 intramuscularly, morphine hydrochloride solution 1 ml three times. Due to the patient's lack of consciousness and pulse, you were urgently called to the patient.

Tasks :

1. Objective examination of the patient.
2. Manipulations in the establishment of clinical death
3. Diagnosis of the condition cause.
4. Further treatment tactics according to the cause.
5. Prevention of this complication, recommendations.

HECKLIST OF OSP(K)I STATION EVALUATION

Practical Skills	Points per Skill	Points Earned
Objective Assessment:	0,9	
Examines the scene for safety	0,15	
Calls the patient (manikin)	0,15	
Puts on gloves	0,15	
Assesses chest excursions	0,15	
Checks for pulse on carotid or femoral artery	0,15	
Assesses pupil response and consciousness	0,15	
Interventions	3.0	
A (Airway open)- airway revision and clearance	0,3	
Head tilt-chin lift	0,3	
Insertion of airway device (laryngeal mask, combitube, tracheal intubation, face mask – any)	0,3	
B (Breath for victim) – Artificial ventilation (mouth-to-mouth, mouth-to-nose, manual resuscitator (Ambu), or mechanical ventilator)	0,3	
C (circulation his blood) – Chest compressions – correct hand placement	0,3	
Adequate compression depth	0,3	
Maintaining appropriate compression-to-ventilation ratio	0,3	
D (Drug) – Establishing intravenous or intraosseous acces	0,3	
Restoration of myocardial activity via adrenaline (1 mg every 3–5 min)	0,3	
Restoration with other drugs (sodium bicarbonate, calcium chloride, glucose in hyperkalemia, or tricyclic antidepressant overdose)	0,3	
Diagnostics	0.9	
AED (or cardiac monitor, defibrillator if AED not available): apply pads/paddles, activate AED, follow prompts. Defibrillator – identify shockable rhythm	0,3	
In case of ventricular fibrillation or pulseless ventricular tachycardia – perform electrical defibrillation (AED or defibrillator)	0,3	
If no effect (sinus rhythm not restored) – administer amiodarone (300 mg +	0,3	

150 mg IV; if unavailable – lidocaine)		
Tactics and Treatment	0,6	
Diagnosis of reversible causes of clinical death: hypoxia, hypovolemia, hyperkalemia, hypothermia, pulmonary embolism, coronary thrombosis, tension pneumothorax, intoxication, trauma, tamponade, coma	0.3	
Intensive care in this clinical situation (nalorphine, naloxone 3.0 ml IV, continued mechanical ventilation, post-resuscitation intensive care)	0.3	
Prevention	0,6	
List methods for preventing analgesic (morphine) overdose	0,3	
Describe the principles of multimodal analgesia	0.3	
Total:	6,0	

Application 5

REGULATORY DOCUMENT (only for the last 5 years)
Department of Emergency and Military Medicine

1. Order of the Ministry of Health of Ukraine of 09.03.2022 No. 441 “Procedure for providing first aid to victims of massive external bleeding” (<https://zakon.rada.gov.ua/laws/show/z0356-22#n170>)
2. Emergency and urgent medical care. In VI volumes. Vol. IV Clinical routes (protocols) of the patient during the provision of emergency medical care at the pre-hospital stage: a textbook for students of higher education institutions / Kryliuk V.O. et al.
3. Emergency medicine. Emergency (ambulance) medical care
4. I.S. Zozulya, A.O. Volosovets, O.G. Shekera, textbook, Medicine, 2023, 560 p.
5. Treatment of wounded with combat injuries of the limbs: monograph, edited by V.I. Tsymbalyuk, Desna Publishing House, 300 copies, 2020, 194 pp.
6. About 100 Emergency conditions. Clinical manual. Series “Fundamentals of clinical thinking in diagrams and infographics” Matviychuk M.V., Chorna V.V., Podolian V.M., et al. Recommended by the Academic Council of Pirogov National Medical University of 28.04.2022 № 7. Korzun D.Y. 2022. 100 c.
7. Tactical medicine. Study guide: Volodymyr Shyshchuk, Serhii Redko, M.M. Liapa, V-vo: Scythian, 2023, p-176.
8. Premedical training: textbook / edited by V. V. Steblyuk. Kharkiv: Pravo, 2020. 341 p.
9. TCCS - Tactical Medicine Course <https://tccc.org.ua>.

Departments of Anesthesiology, Intensive Care and Emergency Medicine

1. Order of the Ministry of Health of Ukraine of 18.07.2024 № 1259 “On approval of the Standards of medical care ‘Cardiopulmonary resuscitation in adults (basic and advanced measures)’ (https://www.dec.gov.ua/wp-content/uploads/2024/07/1259_18072024_smd_slr_u-doroslyh_dod_2.pdf).
2. Ministry of Health of Ukraine State Enterprise “State Expert Center of the Ministry of Health of Ukraine” Cardiopulmonary resuscitation in the hospital setting in adults. Evidence-based clinical practice guideline. 2024. https://www.dec.gov.ua/wp-content/uploads/2024/07/kn_2024_slr_u-doroslyh.pdf.
3. Drug poisoning: prevention and first aid (<https://moz.gov.ua/uk/otruennja-medikamentami-profilaktika-i-persha-dopomoga>).