ALGORITHM FOR CARBON MONOXIDE POISONING

for 6th year students for the OSQE

- 1. Wear gloves before starting the assignment.
- **2.** Call for help, report the diagnosis.

3. Check condition of:

- a. <u>consciousness</u> speak loudly to the patient, palpably pat him on the shoulders.
- **b.** <u>breathing</u> perform a triple Safar maneur: extension of the neck, movement of the lower jaw, opening of the mouth. After that, bring the ear to the patient's mouth and act according to the algorithm "hear, see, feel" watch the movements of the chest, feel and listen to the breath. Normally, in <10 seconds a person performs 2-4 respiratory movements .
- c. <u>circulation</u> perform pulse palpation of the carotid artery.
- **NB!!!** The patient's condition coincides with the condition in the task list, i.e. HR and RR correspond to those in the task list.
- 4. Verbalize the delivery of 100% oxygen through the facial mask.
- **5.** Assign the following diagnostic procedures:
- registration of ECG in 12 leads;
- determination of glucose levels;
- registration of EtCO₂.
- 6. Reassess the patient's condition (hemodynamics, consciousness, breathing).
- 7. Verbalize the transfer of the patient to the ICU for further treatment.

Do not forget to take the route sheet and personal items after completing the task.

ALGORITHM FOR SCENARIO CARDIOGENIC PULMONARY EDEMA

for 6th year students for the OSQE

- 1. Wear gloves before starting the assignment.
- 2. Call for help, report the probable diagnosis.
- **3.** Verbalize the call of the EMS team to the patient.
- 4. Verbalize the delivery of 100% oxygen through the facial mask.
- **5.** Assess the condition of:
- a. <u>consciousness</u> address the patient loudly, tap the patient on the chest.
- b. <u>breathing</u> perform a triple reception according to Safar: extension of the head, removal of the lower jaw, opening of the mouth. After that, bring your ear to the patient's open mouth and act according to the rule "hear, feel, see" follow the movements of the chest wall, feel and hear breathing. Normally, a person breathes 2-4 times in <10 seconds.</p>
- c. <u>circulation</u> palpate the pulse on the carotid artery, be sure to measure blood pressure.
- **NB!!!** The patient's condition meets the conditions of the task, that is, the vital indicators of the simulator coincide with those indicated in the preambule.
- 6. Verbalize the patient's ECG data request.
- **NB!!!** The ECG assessment should be verbalized loudly, for example, "Sister, take an ECG." In the absence of verbalization, the <u>ECG will not be provided.</u>
- 7. Give instructions for providing I / O access. To do this, say loudly "Nurse, install a peripheral venous catheter!".

- **8.** Begin subligual administration of glyceryl trinitrate at a dose of 0.4 mg every 3-5 minutes until the systolic pressure is above 100 mm Hg.
- **NB!!!** Select a syringe/vial labeled "Glyceryl Trinitrate", verbalize the sublingual administration of the drug. The introduction must be verbalized with an indication of the route of administration and dose. No physical injection is performed!
- **9.** Reassess the patient's condition (hemodynamics, consciousness, breathing).
- **10.** Verbalize the monitoring of saturation, heart rate, heart rate, blood pressure and level of consciousness until the arrival of the ambulance team.

Do not forget to take the route sheet and personal items after completing the task.

ALGORITHM FOR SCENARIO ANAPHYLAXIA

for 6th year students for the OSQE

- 1. Wear gloves before starting the assignment.
- 2. Call for help, report the diagnosis and assign tasks.
- 3. Diminish all possible allergens!
- **4.** Check condition of:
- a. <u>consciousness</u> speak loudly to the patient, palpably pat him on the shoulders.
- **b.** <u>breathing</u> perform a triple Safar maneur: extension of the neck, movement of the lower jaw, opening of the mouth. After that, bring the ear to the patient's mouth and act according to the algorithm "hear, see, feel" watch the movements of the chest, feel and listen to the breath. Normally, in <10 seconds a person performs 2-4 respiratory movements .
- c. <u>circulation</u> perform pulse palpation of the carotid artery.
- NB !!! The patient's condition coincides with the condition in the task list, i.e. HR and RR correspond to those in the task list.
- 5. Verbalize giving of oxygen through the face mask.
- **6.** Provide IV access. To do this, say during the exam: "Nurse, install a peripheral intravenous catheter for the patient!".
- 7. Start the infusion of crystaloid solutions 20 ml / kg, verbalize lifting the patient's feet by 30 * using a roller / pillow.
- **8.** Inject Adrenaline as an intramuscular injection of 0.3 mg 0.18% solution in the upper outer third of the thigh.
- **NB !!!** Select a syringe / vial labeled "Adrenaline 0.18%" and demonstrate its introduction into the indicated area. The introduction must be verbalized with an indication of the route of administration, dose and frequency. Physical injection of the solution <u>should not be performed !</u>
- 9. Re-evaluate the patient's hemodynamics (pulse and blood pressure).
- **10.** Verbalize patient transfer to ICU for further treatment.

Do not forget to take the route sheet and personal items after completing the task.

ALGORITHM OF ASSISTANCE IN THE SHOCK OF UNCLEAR ETIOLOGY

for 6th year students for the OSQE

- **1.** Wear gloves before starting the assignment.
- 2. Call for help, report the probable diagnosis.
- **3.** Verbalize the call of the EMS team to the patient.
- **4.** Assess the condition of:
- a. consciousness address the patient loudly, tap the patient on the chest.
- b. breathing perform a triple reception according to Safar: extension of the head, removal of the lower jaw, opening of the mouth. After that, bring your ear to the patient's open mouth and act according to the rule "I hear, feel, see" follow the movements of the chest wall, feel and hear breathing. Normally, a person breathes 2-4 times in <10 seconds.
- c. circulation palpate the pulse on the carotid artery.
- **NB**!!! The patient's condition meets the conditions of the task, that is, all vital signs in the simulator correspond to those specified in the task.
- 5. Verbalize providing 100% oxygen through a face mask.
- 6. Assign the following diagnostic procedures:
- reevaluation of blood pressure, heart rate;
- body temperature check;
- pulse oximetry and capnometry;
- evaluation of glucose levels;
- ECG registration;
- evaluation of the level of lactate;
- blood sampling with subsequent determination of blood culture.
- **7.** Provide in / out access. To do this, during the exam, say: "Nurse, place the patient peripheral intravenous catheter!"
- **8.** Prescribe intravenous fluid therapy with 0.9% NaCl solution at a dose of 30 ml / kg (up to a maximum of 1 liter) in less than 15 minutes.
- **9.** Prescribe an IV infusion of vasopressors: norepinephrine at a dose of 0.05-0.5 mcg / kg / min OR epinephrine at a dose of 0.05-0.3 mcg / kg / min OR dopamine at a dose of 2-20 mcg / kg / min.
- **10.** Reassess the patient's condition (hemodynamics, consciousness, breathing).
- **11.** Verbalize the implementation of treatment measures until the arrival of the ambulance team.

Do not forget to pick up your itinerary and personal belongings upon completion.

ALGORITHM OF ASSISTANCE IN SUDDEN SEIZURES

for 6th year students for the OSQE

- 1. Wear gloves before starting the assignment.
- 2. Call for help, report the probable diagnosis.
- 3. Verbalize the emergency room call to the patient.
- 4. Assess the condition of:
- a. <u>consciousness</u> address the patient loudly, tap the patient on the chest.
- **b.** <u>breathing</u> perform a triple reception of Safar: extension of the head, removal of the lower jaw, opening of the mouth. After that, bring your ear to the patient's open mouth and act according to the

rule "hear, feel, see" - watch the movements of the chest wall, feel and hear breathing. Normally, a person breathes 2-4 times in <10 seconds.

- c. <u>circulation</u> palpate the pulse on the carotid artery.
- **NB!!!** The patient's condition meets the conditions of the task, that is, all vital signs of the simulator correspond to those specified in the task.
- 5. Place soft things under the victim's head to prevent head injury.
- 6. Provide the victim with a stable lateral position, for this:
- stretch the patient's arm closest to you behind the head;
- bend the other arm at the elbow and bring the back of the hand to the patient's closest cheek;
- bend the patient's farthest leg at the knee;
- using the patient's bent arm and leg as a lever, turn it towards yourself;
- pull the bent leg a little higher, straighten the patient's arms, giving him a comfortable, stable position;
- make sure nothing is pressing on the chest or interfering with breathing;
- Make sure the patient's head is on the arm and the head, neck and body are aligned.
- **7.** DO NOT ATTEMPT in any way:
- forcibly restrain the patient's convulsive movements;
- to open the victim's mouth with the help of available means;
- force liquid and any medicine into the victim's mouth during seizures.
- 8. Re-evaluate the patient's vital signs (level of consciousness, presence and pattern of breathing, hemodynamics).
- 9. Order a patient blood glucose test.
- Verbalize the follow-up of the patient until the ambulance team arrives. 10.

Do not forget to pick up your itinerary and personal belongings upon completion.

ALGORITHM FOR SCENARIO ASYSTOLE/PEA for 6th year students for the OSQE

- 1. Wear gloves before starting the assignment.
 - 2. Assess the risk and placement of the patient on a flat hard surface.
 - 3. Check condition of:

consciousness – speak loudly to the patient, palpably pat him on the ิล. shoulders.

breathing - perform a triple Safar maneur: extension of the neck, movement b. of the lower jaw, opening of the mouth. After that, bring the ear to the patient's mouth and act according to the algorithm "hear, see, feel" - watch the movements of the chest, feel and listen to the breath. Normally, in <10 seconds a person performs 2-4 respiratory movements . c.

circulation - perform pulse palpation of the carotid artery.

NB !!! The patient's condition coincides with the condition in the task list, i.e. HR and RR correspond to those in the task list.

- 4. Call for help, report the diagnosis and assign tasks
- 5. Request a device for ECG evaluation (preferably Autonomous External Defibrillator with the ability to assess the rhythm).
- 6. Along with calling for help, start CPR with chest compressions :
- a. 2 fingers above the xiphoid process, place the base of the palm of the main hand, the fingers of which are parallel to the patient's ribs and do not touching the chest; the hand of the other hand

is placed on top. The trunk is tilted forward so that your shoulders horizontal axis coincides with the axis of the sternum of the patient. Arms straight .

- b. pressing on the chest are carried out with a frequency of 100-120 per minute, depth 5-6 cm; the ratio of compressions and breaths 30: 2.
- 7. Inhalations to the patient are performed using an AMBU bag or with the availability of personal protective equipment according to the "mouth-to-mouth" method, while re-providing the airway with a triple Safar maneur. Duration of inhalation should not exceed 6-8 s., With watch for swelling of the chest.
- 8. After 5-6 cycles of CPR or 2 min. Re-evaluate the patient's consciousness , respiration, and circulation . In the absence of vital indicators continue with CPR.
- 9. At 2 minutes, you must give the command to the nurse to inject Epinephrine intravenously in a dose of 1 mg every 3-5 minutes .

NB !!! Administration of an Epinephrine must be verbalized loudly, for example, "Nurse, administered intravenously 1 mg of Epinephrine!". In the absence of verbalization - <u>not done</u>.

10. Simultaneously with the continuation of the compression and after the introduction of adrenaline it is necessary to verbalize the need for rhythm assessment using an ECG.

NB !!! Carrying out an assessment of an electrocardiogram is necessary to verbalize loudly, for example " Nurse, take an electrocardiogram!". In the absence of verbalization - an ECG <u>will not be provided</u>. **IMPORTANT**: For the ECG assessment is given no more than 10 seconds! If you are not sure about the diagnosis of ECG - continue the chest compressions.

- **11.** After the signal "One minute left ":
- a. continue CPR in the amount of 1 cycle;
- b. eassess the patient's vital functions;
- c. verbalize possible causes of cardiac arrest according to the "4H and 4T" rule .

Do not forget to take the route sheet and personal items after completing the task.

ALGORITHM FOR SCENARIO HYPOGLYCEMIA

for 6th year students for the OSQE

- 1. Wear gloves before starting the assignment.
 - 2. Call for help, report the diagnosis and assign tasks.
 - **3.** Order the patient's blood glucose level test.
 - 4. Check condition of:
- a. <u>consciousness</u> speak loudly to the patient, palpably pat him on the shoulders.
- b. <u>breathing</u> perform a triple Safar maneur: extension of the neck, movement of the lower jaw, opening of the mouth. After that, bring the ear to the patient's mouth and act according to the algorithm "hear, see, feel" watch the movements of the chest, feel and listen to the breath. Normally, in <10 seconds a person performs 2-4 respiratory movements.</p>

c. <u>circulation</u> - perform pulse palpation of the carotid artery.
NB !!! The patient's condition coincides with the condition in the task list, i.e. HR and RR correspond to those in the task list.

5. Verbalize the provision of oxygen through the face mask.

6. Perform a peripheral venous catheterisation.

NB !!! Perform and verbalize the most important components of the manipulation: the puncture site, placing a tourniquet, skin preparation, hand position and a catheter needle's cut position, control of intravenous insertion, the passage of the catheter and needle, control and fixation of the catheter.

7. Start intravenous administration of 40% glucose as a bolus 20 ml and with a focus on the level of consciousness .

NB !!! Select syringe / vial marked "40% Glucose" and install it into the catheter port. Administration should be verbalized, with describing of the multiplicity, dose and route of administration. Physical injection of the solution should not be performed !

8. Provide intravenous glucose infusion . To do so, verbalize the placement of a 10% glucose vial into a tripod and connect the system to a peripheral catheter.

9. Order a second patient's blood glucose test.

10. Re-assess the patient's condition (blood circulation, consciousness, breathing).

11. Verbalize patient transfer to ICU for further treatment.

Do not forget to take the route sheet and personal items after completing the task.

ALGORITHM FOR SCENARIO VT/VF

for 6th year students for the OSQE

- **1.** Wear gloves before starting the assignment.
 - 2. Assess the risk and placement of the patient on a flat hard surface.

3. Check condition of:

c.

a. <u>consciousness</u> – speak loudly to the patient, palpably pat him on the shoulders.

b. <u>breathing</u> - perform a triple Safar maneur: extension of the neck, movement of the lower jaw, opening of the mouth. After that, bring the ear to the patient's mouth and act according to the algorithm "hear, see, feel" - watch the movements of the chest, feel and listen to the breath. Normally, in <10 seconds a person performs 2-4 respiratory movements .

<u>circulation</u> - perform pulse palpation of the carotid artery.

NB !!! The patient's condition coincides with the condition in the task list, i.e. HR and RR correspond to those in the task list.

- 4. Call for help, report the diagnosis and assign tasks
- **5.** Request a device for ECG evaluation (preferably Autonomous External Defibrillator with the ability to assess the rhythm).
- 6. Along with calling for help, start CPR with chest compressions :
- a. 2 fingers above the xiphoid process, place the base of the palm of the main hand, the fingers of which are parallel to the patient's ribs and do not touching the chest; the hand of the other hand is placed on top. The trunk is tilted forward so that your shoulders horizontal axis coincides with the axis of the sternum of the patient. Arms straight.
- b. pressing on the chest are carried out with a frequency of 100-120 per minute, depth 5-6 cm; the ratio of compressions and breaths 30: 2.
- 7. Inhalations to the patient are performed using an AMBU bag or with the availability of personal protective equipment according to the "mouth-to-mouth" method, while re-providing the airway with a triple Safar maneur. Duration of inhalation should not exceed 6-8 s., With watch for swelling of the chest.
- 8. After 5-6 cycles of CPR or 2 min. Re-evaluate the patient's consciousness , respiration, and circulation . In the absence of vital indicators continue with CPR.
- 9. At 2 minutes, you must give the command to the nurse to inject Epinephrine intravenously in a dose of 1 mg every 3-5 minutes .

NB !!! Administration of an Epinephrine must be verbalized loudly, for example, "Nurse, administered intravenously 1 mg of Epinephrine!". In the absence of verbalization - <u>not done</u>.

10. Simultaneously with the continuation of the compression and after the introduction of adrenaline it is necessary to verbalize the need for rhythm assessment using an ECG.

NB !!! Carrying out an assessment of an electrocardiogram is necessary to verbalize loudly, for example "Nurse, take an electrocardiogram!". In the absence of verbalization - an ECG <u>will not be</u>

provided. IMPORTANT: For the ECG assessment is given no more than 10 seconds! If you are not sure about the diagnosis of ECG - continue the chest compressions.

- **11.** In the diagnosis of VF / FT without a pulse :
- a. verbalize performance defibrillation ("Away from the patient! Attention, charge!"), the first charge of two phase defibrillator - 200 J, single phase - 360 J. All further charges - 360 J.
- b. Amiodarone 300 mg IV after the third ineffective charge and 150 mg after the fifth ineffective charge.
- 12. After the signal "One minute left ":
- a. continue CPR in the amount of 1 cvcle:
- b. eassess the patient's vital functions ;
- c. verbalize possible causes of cardiac arrest according to the "4H and 4T" rule .

Do not forget to take the route sheet and personal items after completing the task.

ALGORITHM FOR SCENARIO OPIOIDS OVERDOSE

for 6th year students for the OSQE

- 1. Wear gloves before starting the assignment.
 - Call for help, report the diagnosis and assign tasks.
 - 3. Verbalize giving of oxygen through the face mask.
 - **Check condition of:** 4.

consciousness - speak loudly to the patient, palpably pat him on the a. shoulders.

breathing - perform a triple Safar maneur: extension of the neck, movement b. of the lower jaw, opening of the mouth. After that, bring the ear to the patient's mouth and act according to the algorithm "hear, see, feel" - watch the movements of the chest, feel and listen to the breath. Normally, in <10 seconds a person performs 2-4 respiratory movements . c.

circulation - perform pulse palpation of the carotid artery.

NB !!! The patient's condition coincides with the condition in the task list, i.e. HR and RR correspond to those in the task list.

5. Perform a peripheral venous catheterisation.

NB !!! Perform and verbalize the most important components of the manipulation: the puncture site, placing a tourniquet, skin preparation, hand position and a catheter needle's cut position, control of intravenous insertion, the passage of the catheter and needle, control and fixation of the catheter.

6. Start intravenous administration of Naloxone as a bolus of 1 mg slowly with a focus on heart rate, blood pressure and consciousness the patient with possible repeat of IV administration after 30 min.

NB !!! Select the syringe / vial labeled "Naloxone" and install it in the port of the catheter. Administration should be verbalized, with describing of the multiplicity, dose and route of administration. Physical injection of the solution should not be performed !

7. Re-evaluate the patient's hemodynamics (pulse and blood pressure).

8. Verbalize patient transfer to ICU for further treatment.

Do not forget to take the route sheet and personal items after completing the task.

ALGORITHM FOR SCENARIO ORGANOPHOSPHATES POISONING

for 6th year students for the OSQE

- 1. Wear gloves before starting the assignment.
- 2. Call for help, report the diagnosis and assign tasks.
- **3.** Verbalize giving of oxygen through the face mask.
- 4. Check condition of:

c.

a. <u>consciousness</u> – speak loudly to the patient, palpably pat him on the shoulders.

b. <u>breathing</u> - perform a triple Safar maneur: extension of the neck, movement of the lower jaw, opening of the mouth. After that, bring the ear to the patient's mouth and act according to the algorithm "hear, see, feel" - watch the movements of the chest, feel and listen to the breath. Normally, in <10 seconds a person performs 2-4 respiratory movements .

circulation - perform pulse palpation of the carotid artery.

NB !!! The patient's condition coincides with the condition in the task list, i.e. HR and RR correspond to those in the task list.

5. Perform a peripheral venous catheterisation.

NB !!! Perform and verbalize the most important components of the manipulation: the puncture site, placing a tourniquet, skin preparation, hand position and a catheter needle's cut position, control of intravenous insertion, the passage of the catheter and needle, control and fixation of the catheter.

6. Start intravenous administration of Atropine 0.1% as a bolus of 2 ml slowly with a focus on the size of pupils patient and heart rate every 4-5 min.

NB !!! Select the syringe / vial labeled "Atropine 0.1%" and install it in the port of the catheter. Administration should be verbalized, with describing of the multiplicity, dose and route of administration. Physical injection of the solution <u>should not be performed !</u>

7. Start intravenous administration of Pralidoxime as a bolus of 1 g slowly every 1 hour with a focus on the size of pupils patient heart rate and rales.

- 8. Order the acetylcholinesterase activity analysis.
- 9. Re-evaluate the patient's vital signs (pulse, respiration and comsiousness).
- **10.** Verbalize patient transfer to ICU for further treatment.

Do not forget to take the route sheet and personal items after completing the task.