


ОҢТҮСТІК ҚАЗАҚСТАН MEDISINA AKADEMIASY «Оңтүстік Қазақстан медицина академиясы» АҚ	 SKMA -1979-	SOUTH KAZAKHSTAN MEDICAL ACADEMY АО «Южно-Казахстанская медицинская академия»
Department of "Emergency Medical Care and Nursing"		044-57/11 ()
Methodological recommendations for teachers on teaching clinical skills at the Practical Skills Center (using the implementation algorithm)		P 1 of 8

Methodological recommendation for teachers on teaching clinical skills at the Practical Skills Center

(using the execution algorithm)

Specialty: 6b10101 "general medicine"

Subject: "Emergency Medical Care - 1, 2"

Course: 5

Department: emergency medical care and nursing

Developer: Yerimbet B. M.

ОҢТҮСТІК ҚАЗАҚСТАН

**MEDISINA
AKADEMIASY**

«Оңтүстік Қазақстан медицина академиясы» АҚ



SOUTH KAZAKHSTAN

**MEDICAL
ACADEMY**

АО «Южно-Казахстанская медицинская академия»

Department of "Emergency Medical Care and Nursing"


044-57/11 ()

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Reviewed and discussed at the meeting of the department

Protocol No. 4 from "28" 11 2022 G.

Head of the Department, PhD, Associate Professor  A.A. Seydakhmetova



1. Name of clinical skill: Algorithm of extended cardiopulmonary resuscitation (shock rhythm)

2. Learning objectives: To have advanced CPR skills.

3. Time required for preliminary instruction and demonstration of the skill on a dummy: 5 min.

4 Time required for self-mastery of the skill: 10 min.

5. The necessary theoretical knowledge to master the clinical skill:

- advanced resuscitation algorithm
- algorithms and indications of defibrillation
- contraindications to defibrillation
- ensuring the patency of the respiratory tract and ventilation
- reversible causes
- diagnosis and treatment of reversible causes of circulatory arrest
- ways of drug administration
- medications for CPR

6. A list of simulators, mannequins, models, visual aids: a dummy simulator "Volodya" for extended cardiopulmonary resuscitation.

7. List of medical devices and equipment: masks, sterile gloves, Ambu bag, defibrillator, laryngoscope, intubation tube, venous catheter, electric pump, sterile cotton balls, syringes for injection 2.0, 5.0, 10.0, 20.0 ml, oxygen for inhalation, amiodarone (ampoules 3 ml. 150 mg), 70% ethyl alcohol solution, saline solution (0.9% -400.0 ml), epinephrine 0.18% -1.0 ml.

8. Skill execution algorithm:

№	Step-by-step actions	Execution		
		Yes	No	Remark
1	Assessment of consciousness (call out and pat on the shoulders) Put on a flat surface, free the chest from clothes, raise the tip of the legs by 30-40 degrees, ensure the patency of the upper respiratory tract. Assessment of breathing (see, hear, feel). Assessment of the circulatory system (pulsation of the carotid artery on both sides). Performing one CPR period (5 cycles of 30 compression; 2 times of ventilator)			
2	Turning on the defibrillator Installing electrodes, connecting a monitor, determining the type of circulatory arrest. Make sure that none of the resuscitation participants is holding the victim, and give everyone the command to leave the patient! 1-performing defibrillation (120 J in biphasic or 200 J in monophasic)			
3	Performing one CPR period (5 cycles of 30 compression; 2 times of ventilator)			

4	Make sure that none of the resuscitation participants is holding the victim, and give everyone the command to leave the patient! 2-performing defibrillation (150-170 J on biphasic or 300 J on monophasic)			
5	Venipuncture of the peripheral vein. Intravenous administration of 1 mg of epinephrine, 10 ml of isotonic sodium chloride solution.			
6	Performing one CPR period (5 cycles of 30 compression; 2 times of ventilator)			
7	Make sure that none of the resuscitation participants is holding the victim, and give everyone the command to leave the patient! 3-performing defibrillation (200 J on the biphasic or 360 J on the monophasic)			
8	Intravenous administration of 300 mg of amiodarone, 20 ml of 5% glucose or lidocaine 1.5 mg / kg.			
9	Performing one CPR period (5 cycles of 30 compression; 2 times of ventilator)			
10	Make sure that none of the resuscitation participants is holding the victim, and give everyone the command to leave the patient! 4-performing defibrillation (200 J on the biphasic or 360 J on the monophasic)			
11	Intravenous administration of 1 mg of epinephrine, 10 ml of isotonic sodium chloride solution.			
12	Performing one CPR period (5 cycles of 30 compression; 2 times of ventilator)			
13	Make sure that none of the resuscitation participants is holding the victim, and give everyone the command to leave the patient! 5-performing defibrillation (200 J on biphasic or 360 J on monophasic)			
14	Intravenous administration of 150 mg of amiodarone, 20 ml of 5% glucose or lidocaine 1 mg / kg.			
15	Heart rate measurement, oxygen saturation and capnography			
	Total:			

9. Tasks:

- Assessment of the patient's condition.
- Conducting extended cardiopulmonary resuscitation according to the protocol.

10. Materials for self-assessment on the topic of the lesson:

**Test questions:**

1. During chest massage:

- A. do not bend
- B. bending 5-6cm
- C. bent 10cm
- D. 2cm bent

2. Monitoring the effectiveness of indirect massage:

- A. after 2 minutes
- B. After 10 minutes
- C. Every half hour
- D. There is no regulation

3. Reliable signs of clinical death

- A.lack of breathing, lack of heartbeat, lack of consciousness, dilated pupils without reaction to light
- B.shallow and rapid breathing, narrow pupils without reaction to light, thready pulse
- C.convulsions, cold limbs, tachypnea, hypotension
- D.ventricular fibrillation, low-filling pulse, dyspnea, cyanosis

4. A reliable sign of cardiac arrest

- A.apnea
- B.absence of a pulse on the carotid artery
- C.Lack of consciousness
- D.wide pupil without reaction to light

5. Closing the inhalation into the larynx with the root of the tongue warns

- A.Introduction of the air duct
- B.Turning the head to the side
- C.Half-sitting position
- D.Heimlich's reception

6. Intensive monitoring of patients in critical condition includes

- A.implementation of hygienic care measures
- B.Identification of patient problems
- C.Monitoring of vital functions
- D.Determination of the main biochemical parameters of blood

7. Artificial maintenance of hemodynamics is


- A.Second stage
- B.First stage
- C.Priority stage
- D.Third stage

8. Does not apply to intensive care methods

- A.VENTILATOR
- B.CPR
- C.hemodialysis
- D.Parenteral nutrition

9. Indirect heart massage is performed in the position

- A. lying on a wooden shield
- B. Lying on your back on a hard surface
- C. Arbitrary
- D. with his head down

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10. Saturation rate as a percentage

- A. 80-85 %
- B. 85-90 %
- C. 90-92 %
- D. 96-99 %

11. Criteria for evaluating the performance of the skill:

№	Implementations	Evaluation criteria
1	Completed	According to the clinical skills, the student completed 15 step-by-step actions. Correctly assessed the condition of the unconscious patient and completely performed cardiopulmonary resuscitation. Correctly assessed the effectiveness of the activities carried out.
2	Partially completed	According to the clinical skills, the student completed 5-6 steps of 15 step-by-step actions. He did not fully assess the condition of the unconscious patient and performed cardiopulmonary resuscitation. I did not correctly determine the effectiveness of the activities carried out.
3	Failed:	According to clinical skills, the student did not complete 15 step-by-step actions. I could not correctly assess the condition of the unconscious patient and perform cardiopulmonary resuscitation. I did not evaluate the effectiveness of the activities carried out.


12. Literature:

Basic literature:

1. The State program for the development of healthcare of the Republic of Kazakhstan "Densalyk" for 2021-2024
2. Order of the Ministry of Health of the Republic of Kazakhstan dated July 3, 2017 No. 450 "On approval of the Rules for emergency medical care in the Republic of Kazakhstan".
3. Vertkin A., Sveshnikov K. Guidelines for emergency medical care. Moscow. - Publishing House E. – 2017. – 560 p.
4. Emergency care in a therapeutic clinic. Edited by A.V. Gordienko. – SpecLit. – 2017. – 229 p.
5. Emergency outpatient cardiology: a brief guide / V. V. Ruksin. - 2nd ed. - Moscow: GEOTAR-Media, 2016.- 255 s
6. Emergency medical care. Clinical recommendations. Edited by S.F. Bagnenko. - GEOTAR-Media. – 2018. – 896 p.

Additional literature:

1. Emergency cardiology. Edited by P.P. Ogurtsov, V.E. Dvornikov. - GEOTAR-Media. – 2016. – 272 p.

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2. Clinical protocol of diagnosis and treatment "Sudden death". Approved by the Joint Commission on the Quality of Medical Services of the Ministry of Health of the Republic of Kazakhstan dated June 23, 2016. Protocol No. 5.
3. Emergency medical care. Clinical recommendations / ed.: S.F. Bagnenko. - M.: [B. I.], 2015. - 871 p.
4. Emergency care for children: reference book: trans. from it. / - Moscow : Medpress-inform, 2014.

**13. Standard of correct answers based on evaluation materials:**

№	the answers
1	B
2	A
3	A
4	B
5	A
6	C
7	B
8	D
9	B
10	D