


ОНТҮСТІК ҚАЗАҚСТАН <b>MEDISINA</b> <b>AKADEMIASY</b> «Оңтүстік Қазақстан медицина академиясы» АҚ		SOUTH KAZAKHSTAN <b>MEDICAL</b> <b>ACADEMY</b> АО «Южно-Казахстанская медицинская академия»
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## CONTROL AND MEASURING MEANS

Questions of the program for midterm control 1

**Name of the discipline:** «Emergency medical care-1»

**Discipline code:** EMC-5302-1

**Name of EP:** 6B10101 «General medicine»

**Number of academic hours (credits):** 150 hours (5 credits)

**Course and semester:** 5 course, 9 semester

Compiled by: assistant of the department Yerimbet B. M.


Protocol № 11 from "20" 06 2025 y.

Head of Department, candidate of medical sciences, docent:



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Shymkent, 2025y.

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### Program questions for midterm exam 1

1. Triage medical triage system.
2. Categories of urgency of calls, diseases by category, time allotted for call service.
3. Terminal conditions: degrees, clinic, emergency care.
4. Name the signs of clinical death.
5. Acute left ventricular failure, clinic, diagnosis, algorithm of emergency care.
6. Acute right ventricular failure, clinic, diagnosis, algorithm of emergency care.
7. Paroxysmal supraventricular without pulse tachycardia, clinic, diagnosis, algorithm of emergency care.
8. Ventricular fibrillation, clinic, diagnosis, algorithm of emergency care.
9. Name the asystole clinic, diagnostic criteria, and emergency care algorithm.
10. Acute coronary syndrome, clinic, diagnosis, algorithm of emergency care.

### Situational tasks:

1. Call an ambulance at home. The patient is 42 years old, according to his wife, he complained of prolonged chest pains that did not stop with nitroglycerin for 45 minutes. He lost consciousness during the examination. There is no respiration or pulse in the carotid artery. Pupils are dilated, there is no reaction to light. The skin is pale, cyanosis is observed. Identify the patient's emergency situation. Create an algorithm for emergency care, justify each stage.

2. Home call. An 18-year-old patient with insulin-dependent diabetes mellitus had weakness, nausea, vomiting, apathy, and deafness during the week. On the recommendation of a doctor, I received 32 units of protophane, 8 units. actrapida. It was not possible to specify a more accurate medical history of the disease - the patient is from a socially disadvantaged family. Facial scarring is noted. The skin and mucous membranes are dry. Skin turgor is reduced. "Soft" eyeballs. The heart tones are muted. Low-filling pulse. BP is 90/60 mmHg. Deep, noisy breathing. She lost consciousness during the examination. The required time for transportation to the CRH is 2 hours.


Determine the patient's emergency condition.

Create an algorithm for emergency care and justify each stage.

3. An elderly patient suddenly developed acute pain behind the sternum, followed by a dry cough and dizziness. A little later, shortness of breath of the inspiratory type and cyanosis developed in combination with pallor of the skin. Pathological pulsation in the epigastric region is visually detected. Percutaneously, there is an expansion of the right border of the heart, auscultatively, there is an accent of the II tone and its bifurcation above the pulmonary artery.

Determine the patient's emergency condition. Create an algorithm for emergency care and justify each stage.




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4. Patient L., 47 years old, complains of severe bursting chest pain that occurred 20-25 minutes ago, shortness of breath, dizziness, pain in the right hypochondrium, bloating, vomiting, and severe weakness. The patient's condition was found to be severe, with pronounced cyanosis of the cast-iron skin of the upper half of the body, swollen cervical veins, pulsation in the epigastric region, and swelling on the legs. Breathing is rare and arrhythmic, with auscultation on the right, breathing is weakened. The heart tones are muted, the emphasis of the II tone is on the pulmonary artery and its bifurcation, there is also a systolic murmur. Blood pressure is reduced, tachycardia. The abdomen is swollen, there is pain in the right hypochondrium, the liver is enlarged by 4 cm, painful. Determine the patient's emergency condition. Create an algorithm for emergency care and justify each stage.

5. The attack occurred this morning after breakfast, the heart rate exceeded 170 beats per minute, was accompanied by severe weakness, a feeling of fear, shortness of breath, and constricting pains in the heart area. The patient herself was unable to relieve the attack. She called 103. Objectively: The patient is pale and scared (1.5 hours have passed since the onset of the attack). In the lungs, breathing is vesicular, there is no wheezing, BDD is 24 beats per 1 min. The heart tones are loud, rhythmic, and there are no noises. Pulse is 190 beats per minute, rhythmic, low filling. BP is 105/70 mmHg (normal pressure is 120/70 mmHg). The belly is soft, painless. The liver is at the edge of the costal arch. Determine the patient's emergency condition.

6. A call to the workshop of the enterprise for a 60-year-old patient. He complains of the sudden appearance of sharp pain behind the sternum, shortness of breath, cough with separation of mucous sputum with streaks of blood. The patient prefers to lie down. The skin is pale gray, cyanotic, the cervical veins are swollen, pulsation in the jugular region. BDD 40 per minute Blood pressure is 90/60 mmHg. Pulse is 120 beats/min. The boundary of relative cardiac dullness is shifted to the right. Systolic murmur in the pulmonary artery. The liver protrudes 3 cm from under the edge of the costal arch. Cyanosis, hyperemia and swelling of the left shin, pain on palpation along the vascular bundle. Determine the patient's emergency condition. Create an algorithm for emergency care and justify each stage.

7. An elderly patient suddenly had acute pain behind the sternum, followed by a dry cough, dizziness. A little later, shortness of breath of the inspiratory type and cyanosis developed in combination with pallor of the skin. Pathological pulsation in the epigastric region is visually detected. Percutaneously, there is an expansion of the right border of the heart, auscultatively, there is an accent of the II tone and its bifurcation above the pulmonary artery. Determine the patient's emergency condition. Create an algorithm for emergency care and justify each stage.

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8. A call to patient K., 48 years old. Complaints of sudden acute pain behind the sternum, shortness of breath, cough with streaks of blood, which appeared when trying to get out of bed. A week ago, the patient underwent surgery for hemorrhoidal bleeding.

Objectively: the condition is serious. The skin is diffusely cyanotic. Body temperature is 38.0°C. There is swelling and pulsation of the cervical veins; epigastric pulsation, which increases with inspiration. The boundaries of the relative heart are shifted to the right by 1.5 cm. Cardiac activity is rhythmic, the emphasis of the second tone is on the pulmonary artery. Heart rate 106 in 1 min., blood pressure – 100/75 mmHg. In the lungs on the right under the shoulder blade, breathing is weakened, there is a zone of small bubbly wheezing. BH – 24 in 1 min. The belly is soft, painless. Liver on

2 cm protrudes from under the edge of the costal arch, painful on palpation.

ECG: deep wave S in lead I; deep wave Q and negative T in lead III; displacement of the transition zone to the left; teeth P in leads III, aVF, V1-2 are M-shaped deformed, widened. In the right thoracic leads, QRS complexes of the rSR' or rsR' type are M-shaped, with R' > r'. In the left thoracic leads, I, aVL – there are widened and serrated teeth.

Determine the patient's emergency condition.


Create an algorithm for emergency care and justify each stage.

9. Patient D., 54 years old, was taken to the emergency room complaining of intense chest pain accompanied by profuse perspiration. The pain appeared 3 hours ago. Repeated administration of nitroglycerin under the tongue had no effect. In the anamnesis: suffers from arterial hypertension for a long time. Objectively: the condition is serious. The patient is inhibited, sluggish. The skin is pale and cold to the touch; diffuse cyanosis, a "marbled pattern" of the skin, and sticky sweat are noted. There is no wheezing in the lungs. BH – 22 at 1 min. the heart tones are difficult to hear. Heart rate is 100 in 1 min., blood pressure is 90/60 mmHg. ECG: sinus tachycardia; the horizontal position of the electrical axis of the heart, signs of hypertrophy of the left ventricle; a Q wave lasting 0.04 seconds, a domed rise in ST, turning into a negative T wave, a decrease in the voltage of the R wave in leads V2-Determine the patient's emergency condition. Create an algorithm for examination and emergency care.

10. You walk down the street and see a worried man who calls for the help of passersby. To the question: "What happened?" A passerby points to a man lying down. The season is early autumn. On examination: there is no consciousness, there are no visible signs of breathing, the pulse on the carotid arteries is not detected. The skin is earthy-gray, cold to the touch. Stiffness in the extremities is determined. The pupils are wide and do not react to light. Determine the patient's emergency condition.

Create an algorithm for emergency care and justify each stage.



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## CONTROL AND MEASURING MEANS

Questions of the program for midterm control 2

**Name of the discipline:** «Emergency medical care-1»

**Discipline code:** EMC-5302-1

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**Number of academic hours (credits):** 150 hours (5credits)


**Course and semester:** 5 course, 9 semester

Compiledby: assistant of the department Yerimbet B. M.

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Shymkent, 2025y.

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## Program questions for midterm exam2

1. Hypoglycemic coma, clinic, diagnosis, algorithm of emergency care.
2. Hypertensive crises, classification, clinic, diagnosis, algorithm of emergency care.
3. Acute respiratory failure, clinic, diagnosis, algorithm of emergency care.
4. Clinic, diagnosis of asmatic status, algorithm of emergency care. Indications for hospitalization.
5. Anaphylactic shock, classification, clinic, diagnosis, algorithm of emergency care.
6. Angioedema, clinic, diagnosis, algorithm of emergency care.
7. Myocardial infarction, clinic, diagnosis, algorithm of emergency care.
8. Drug allergy, classification, clinic, diagnosis, algorithm of emergency care.
9. Bronchospasm syndrome, clinic, diagnosis, algorithm of emergency care.
10. Laryngospasm, clinic, diagnosis, emergency care.

## Situational tasks:

1. Home call to patient K., 57 years old. Complaints of headache in the occipital region, vomiting, dizziness, flickering of flies in front of the eyes. It turned out from the medical history that these phenomena developed this afternoon. I hadn't seen a doctor before. Headaches were bothered periodically for several years, but the patient did not attach importance to them and did not consult doctors.

Objectively: the temperature is 36.4 °C. The general condition is of moderate severity. The skin is pale. Vesicular respiration. The left border of relative cardiac dullness is 1 cm outwards from the mid-clavicular line. The heart tones are muted, with a sharp accent of the 2nd tone on the aorta. Heart rate 92 per minute, pulse hard, tense, 92 per minute. Blood pressure 200/110 mmHg. Abdominal pathology was not detected.

Determine the patient's emergency condition.


Create an algorithm for emergency care and justify each stage.

2. Patient N., 58 years old, went to the emergency department complaining of pain in the occipital region, such as knife pains in the left half of the chest, and general weakness. He has been suffering from arterial hypertension for 5 years, the blood pressure norm is 150/80 mmHg. He does not take antihypertensive drugs consistently. Objectively: the general condition is of moderate severity. The face is hyperemic. The relative boundary of the heart is shifted to the left 1.5cm. The work of the heart is rhythmic, there is a II-tone accent above the aorta, there is a weak systolic murmur in the heart area, there is no wheezing. Breathing - 22 times per minute. The belly is soft, painless. The liver and spleen are not enlarged. There is no peripheral edema. ECG: the amplitude of the R wave on V5-6 and the amplitude of the S wave on V1-2 are increased, R1 = 25mm, on leads V5-6, I, and the VL segment RS-T is shifted below the isoline, on leads V5-6, I, and the VL T wave is two-phase.

Identify the patient's emergency situation.

Create an algorithm for emergency care, justify each stage.



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3. You were called to the canteen of the company. A 20-year-old man had a convulsive cough and difficulty breathing during a hasty meal and conversation. He is worried about pain in the larynx. The patient is confused, speaks with difficulty, and feels fear. The face is cyanotic. Hoarseness of voice. Seizures of convulsive coughing and noisy breathing with difficulty in breathing are periodically repeated. Body weight corresponds to the patient's height.

Determine the patient's emergency condition.

Create an algorithm for emergency care and justify each stage.

4. A 50-year-old man with complaints of paroxysmal expiratory dyspnea, cough with difficult-to-separate mucous sputum. Suffers from bronchial asthma. The deterioration is associated with a previous acute respiratory viral infection. The number of berodual inhalations has to be increased up to 10 times. The attack has not been completely stopped for the last 2 days. The condition is serious. Orthopnea. BDD 24 v min. A noisy whistling exhale. The skin is cyanotic, covered with sweat. Breathing is weakened, areas of the "dumb" lung. Heart rate 120 per minute BP 140/90 mmHg.

Determine the patient's emergency condition.

Create an algorithm for emergency care and justify each stage.

5. An ambulance crew was called to the home of a 30-year-old woman who complains of fever up to 39 for 5 days, weakness, sweating, pain and heaviness in the right side of the chest, coughing with a small amount of sputum, shortness of breath. Objectively: the patient is forced to sit down due to shortness of breath. The right half of the chest lags behind in the act of breathing, and the vocal tremor is sharply weakened here. The percussion sound is sharply shortened. During auscultation on the right, sharply weakened breathing is heard in the middle sections of the lung, and breathing is not detected in the lower sections. Pulse rate 110 beats/min. BP 90/60 mmHg.

Determine the patient's emergency condition.


Create an algorithm for emergency care and justify each stage.

6. At night, an ambulance crew was called to the home of a 40-year-old patient who complained of lack of air (he had to sit up in bed and lower his legs), shortness of breath with difficulty breathing, dry cough, severe weakness, fear of death. He had a history of massive myocardial infarction 2 years ago. Objectively: the skin is cyanotic and moist. In the lungs, against the background of weakened vesicular respiration, moist wheezing is heard and mainly in the lower parts. Heart tones are dull, rhythmic, bullets 98 beats/min. Blood pressure 160/90 mmHg

Determine the patient's emergency condition.

Create an algorithm for emergency care and justify each stage.

7. Patient N., 58 years old, went to the emergency department complaining of pain in the occipital region, such as knife pains in the left half of the chest, and general weakness. He has been suffering from arterial hypertension for 5 years, the blood pressure norm is 140/80 mmHg. He does not take antihypertensive drugs consistently. Objectively: the general condition is of

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moderate severity. The face is hyperemic. The relative boundary of the heart is shifted to the left 1.5cm. The work of the heart is rhythmic, there is a II-tone accent over the aorta, there is a weak systolic murmur in the heart area, there is no wheezing. Breathing - 22 times per minute. The belly is soft, painless. The liver and spleen are not enlarged. There is no peripheral edema. ECG: the amplitude of the R wave on V5-6 and the amplitude of the S wave on V1-2 are increased, R1 = 25mm, on leads V5-6, I, and the VL segment RS-T is shifted below the isoline, on leads V5-6, I, and the VL T wave is two-phase.

Identify the patient's emergency situation.

Create an algorithm for emergency care, justify each stage.

8. Patient V., 43 years old, went to the paramedic complaining of daily attacks of suffocation, especially difficulty exhaling, general weakness, malaise. After an attack, a small amount of viscous vitreous sputum disappears. She has been ill for 2 years, with an exacerbation in early autumn. The patient is allergic to penicillin.

Objectively: the condition is of moderate severity. The patient is sitting with her hands resting on the edge of the bed. The skin is clean, with a cyanotic tint. The chest is barrel-shaped, the intercostal spaces are dilated, there is swelling of the cervical veins, and the involvement of auxiliary muscles. Breathing is noisy, 22 breathing movements per minute. During percussion, a boxed sound is noted, and dry wheezing is heard auscultationally against the background of weakened vesicular respiration. BDD 22 per minute. Heart tones are rhythmic, clear, 92 beats/min, BP 140/70 mmHg.

Determine the patient's emergency condition.

Create an algorithm for emergency care and justify each stage.

9. Patient G., 54 years old. Complaints of difficulty breathing. Suffers from asthma for 9 years. He takes euphyllin and Berotek inhalations. Seizures are repeated 3-4 times a month. This deterioration occurred an hour ago, and Berotek inhalation had no effect. Objectively: clear consciousness, cyanotic skin, expiratory dyspnea. There is harsh breathing in the lungs, dry wheezing. BDD 21 per minute, heart rate 92 per minute Blood pressure is 130/90 mmHg, PSV is 80% of the norm.


Determine the patient's emergency condition.

Create an algorithm for emergency care and justify each stage.

10. Patient N., 42 years old, complains of an attack of suffocation with predominant difficulty in exhaling, spastic unproductive cough. The symptoms first appeared during the flowering season 3 years ago. Since then, seizures have been resumed upon contact with household chemicals and perfumes.

Objectively: the condition is of moderate severity. Physical activity is limited. The patient is agitated. Speech is limited to short phrases. Pronounced retraction of the jugular fossa, the involvement of the auxiliary respiratory muscles. Patient's position: standing with hands resting on the windowsill. The limits of relative dullness of the heart are within the normal range. Cardiac activity is rhythmic. Heart rate is 90 in 1 minute, blood pressure is 130/90 mmHg.



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Breathing is weakened in the lungs, dry scattered wheezing in all pulmonary fields. BH – 27 in 1 min.

The belly is soft, painless. The liver and spleen are not enlarged.

Peak Flowmetry: PSV: 60% of the required value.

Determine the patient's emergency condition.

Create an algorithm for emergency care and justify each stage.







