

Pulmonology Station

Materials and equipment for the station:

1. Peak flow meter
2. Salbutamol inhaler
3. Blood pressure monitor
4. Stethoscope

Clinical case

A 36-year-old man visited his family doctor complaining of shortness of breath. The family nurse conducted an initial examination: the patient's blood pressure was 160/100 mmHg, heart rate was 120 beats per minute, temperature was 36.6°C, and respiratory rate was 28 breaths per minute. The shortness of breath began 2 hours ago. What is your next step?

You have 10 minutes to take a focused history, perform a focused examination, and prescribe treatment. 1. Standardized patient assessment sheet.

Resident _____ Year _____

№	Stages	Mark of completion		Patient response and action
		Points	Points	
A true medical case history. The examinee.				
1	Did the examiner ask about the onset of shortness of breath?	0-2		It started two hours ago.
2	Did the examiner ask how often such episodes of shortness of breath occur?	0-2		Once a week during the day and two or three times a month at night.
3	Did the examiner ask when the shortness of breath worsens?	0-2		It usually gets worse in the spring.
4	Did the examiner ask about chest tightness?	0-2		My chest feels a little tight.
5	Did you ask the examinee about coughing?	0-2		No cough.
6	Did you ask the examinee about any recent upper respiratory tract infections?	0-2		There was no cough.
7	Did you ask the examinee about any harmful habits?	0-2		Does not smoke. Does not drink alcohol.
8	Did you ask the examinee about any treatment?	0-2		I relieved my shortness of breath with salbutamol inhalation.
9	Did you ask the examinee about any past allergies?	0-2		In the spring, I usually suffer from rhinitis.
10	Did you ask the examinee about any rashes?	0-2		There was no rash.
11	Did you ask the examinee about family history?	0-2		My grandmother had bronchial asthma.
12	Did you ask the examinee about any medications they are taking?	0-2		I do not take any medication.
Physical examination. Examiner				
13	Did you wash your hands before and after the examination?	0-1		Yes Yes
14	Did you listen to heart sounds with a stethoscope in at least three places?	0-2		If the examination is performed, the examinee is given a card with the results: heart sounds are clear, rhythmic, heart rate - 120 beats per minute.

15	Did you auscultate the lungs?	0-2		If the examination is performed, the examinee is given a card with the results: moderate bilateral dry wheezing
16	Did they count the respiratory rate?	0-2		If the examination has been performed, the examinee is given a card with the results: respiratory rate - 28 per minute.
17	Did they palpate the abdomen and check for edema in the lower extremities?	0-2		Yes, no pathology was found on palpation of the abdomen. There is no edema on the lower extremities.
18	Did they perform peak flow measurement?	0-2		PSV - 200 L per minute
19	Did they perform inhalation with salbutamol?	0-2		Shook the metered dose inhaler. The inhaler should be held 4 cm from the mouth and the inhalation should last 5 seconds, then the patient holds their breath for 10 seconds.
20	Did they auscultate the lungs 1 roorop110 after inhalation?	0-2		If the examination is complete, the examinee is given a card with the results: breathing in the lungs has become clear, no wheezing is heard.
Communication skills. Examined person				
21	Say hello and introduce yourself? Say goodbye?	0-1		Yes Yes
22	Did they explain the preliminary diagnosis?	0-3		The patient asks about the cause of her condition: You have developed a disease based on increased sensitivity of the bronchi to various irritants, in particular allergens. This disease is called bronchial asthma.
23	Did they explain what it is?	0-2		The most common allergens include pollen, mold, cockroaches, house dust, and animal dander (the outer layer of skin), especially from cats. Less common allergens include food, cold air, perfume, and smoke. In response to these irritants, the bronchi constrict. An asthma attack can be triggered by heavy physical exertion and rapid, excessive breathing (caused by laughing or crying).
24	Did they explain each step of the physical examination and procedures, how it is performed. Did they provide training for further observation and treatment?	0-2		Explains the rules for using an inhaler and how to monitor yourself with a peak flow meter at home.
25	Did they discuss further treatment tactics?	0-2		Refers the patient for examination and consultation with an allergist to clarify the diagnosis and source of the allergen.
26	Did they explain possible further complications if treatment is delayed?	0-1		Without treatment, your condition will worsen, attacks will increase, and you may develop status asthmaticus.
TOTAL:				
<p><i>If the examinee scored:</i> 45-50 points - "excellent" 36-44 points - "good" 26-35 points - "satisfactory" 25 points and below - "failed"</p>				

Observer's name and signature _____

Date and time _____

1. Legend for the patient

You are a 36-year-old man who came to your family doctor complaining of shortness of breath. The family nurse conducted an initial examination: your blood pressure is 160/100, your pulse is 120 beats per minute, your temperature is 36.6°C, and your respiratory rate is 28 breaths per minute. The shortness of breath began 2 hours ago, with difficulty breathing and chest tightness, a feeling of lack of air. You have such attacks once a week during the day and 2 or 3 times a month at night. Usually, the exacerbation occurs in the spring, and usually at the same time you are bothered by mucous discharge from the nose. You have not had a recent cold or cough. When you have attacks of suffocation, you relieve them with salbutamol inhalation. You do not smoke or drink alcohol. You have no allergies to medications or foods. In your family history, your grandmother had bronchial asthma. You are not currently taking any medications. You are restless, afraid of another asthma attack and afraid of dying from lack of air during an attack.

2. Educational questions about the clinical case.

A 36-year-old man came to his family doctor complaining of shortness of breath. The family nurse conducted an initial examination: the patient's blood pressure was 160/100, pulse was 120 beats per minute, temperature was 36.6°C, and respiratory rate was 28 breaths per minute.

The shortness of breath began two hours ago and occurs once a week during the day and two or three times a month at night. It usually worsens in the spring and is accompanied by rhinitis. The patient has not had a recent cold or cough. When attacks of suffocation occur, he relieves them with salbutamol inhalation. He does not smoke or drink alcohol. He has no allergies to medications or food products. In his family history, his grandmother had bronchial asthma. He is not currently taking any medications.

A general examination of the patient revealed the following: auscultation of the lungs revealed moderate bilateral dry wheezing. Heart sounds were clear and rhythmic, with a heart rate of 120 beats per minute. Palpation of the abdomen revealed no abnormalities. There was no edema in the lower extremities. Peak flow measurement showed PSV of 200 L/min.

The family doctor performed a test with salbutamol inhalation and then re-auscultated the lungs. After salbutamol inhalation, breathing in the lungs became clear and no wheezing was heard. In this condition, bronchial asthma should be considered, which is based on increased sensitivity of the bronchi to various irritants, in particular allergens. The most common allergens include pollen, mold, cockroaches, house dust, and animal dander (the outer layer of skin), especially cats, and less commonly food allergens, cold air, perfumes, and smoke. In response to these irritants, the bronchi constrict. An attack of suffocation can be triggered by heavy physical exertion and rapid, excessive breathing (caused by laughter or crying). It is necessary to differentiate it from pneumonia, upper airway obstruction, mucoviscidosis, and congestive heart failure.

3. Examination plan (check the appropriate box).

1. Interview.
2. Medical history.
3. Patient examination.
5. Objective data: palpation, auscultation.
6. Laboratory data.
7. Discussion of the diagnosis, treatment tactics, etc.
8. _____
9. _____

Doctor (Last name, first name, initials legibly)
