



SECHENOV UNIVERSITY
LIFE SCIENCES

AMSEA

Azerbaijan Medical Simulation
Education Association



SIMULATION CENTER
SECHENOV UNIVERSITY
BAKU

THE GUIDE TO THE OSCE

Surgery

Specialty:
General medicine

The duration of the station

The total time to complete the skill is 10 minutes. Accredited person's time at the station is 8.5 minutes (in case of early performance of a practical skill, the accredited person stays inside the station until the voice command "Go to the next station").

Timing of the practical skills

Time of the voice command	Voice Command	Action of the accredited person	Skill performancetime
0'	Enter the station, say your ID number and listen to the assignment	Listen to the station assignment (briefing). Initiation of the work at the station	0,5'
8,0'	You have one minute left	Work continuing at the station	8,5'
9,0'	Time is up	Wait for the next command	1'

List of situations (scenarios)

№	Situation
1	Subdural hematoma
2	Traumatic pneumothorax
3	Internal bleeding

The choice and sequence of situations of the station is determined by a member of the commission on the day of the exam.

Subdural hematoma

Information (briefing) for the accredited person

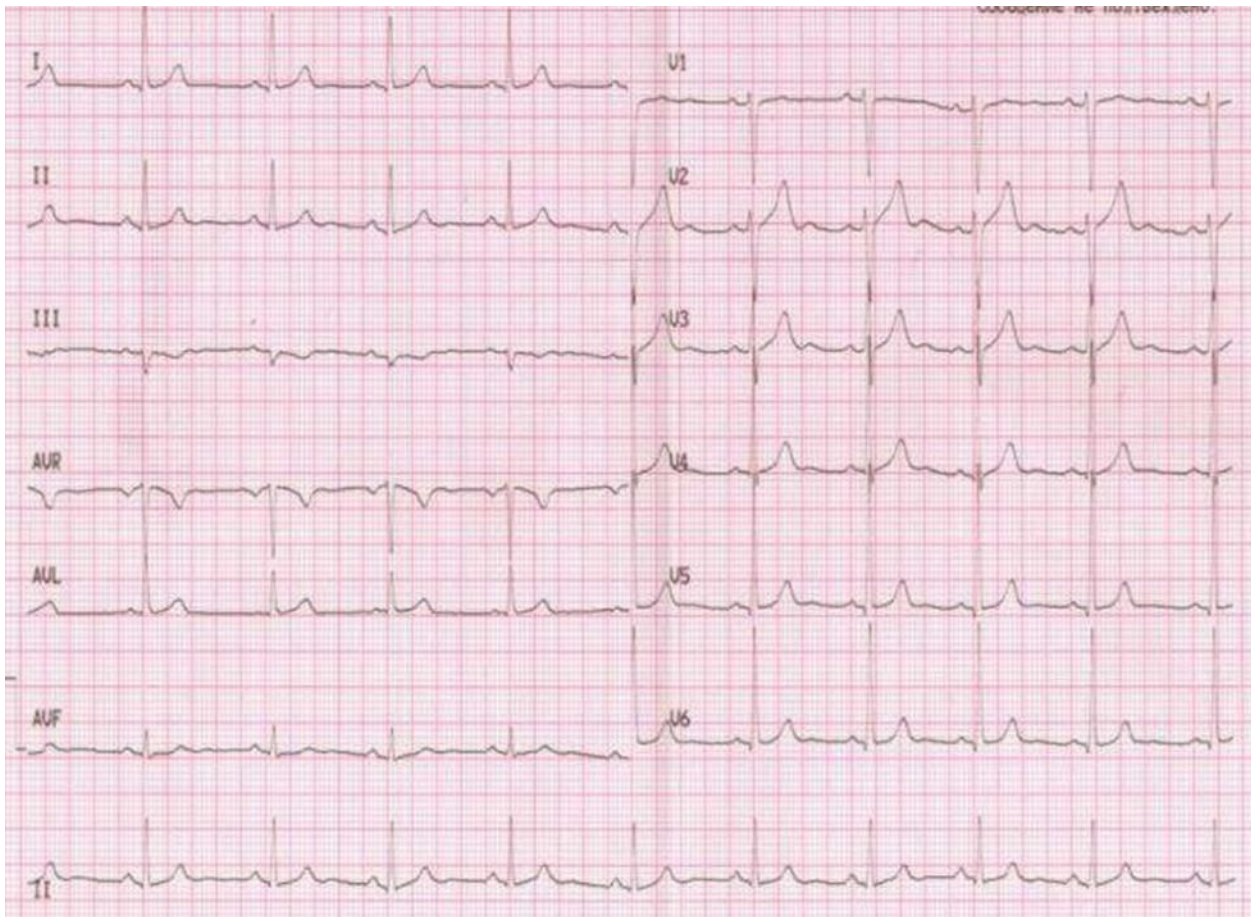
Your rescue team received a call to a construction site where a 45-year-old man had fallen from the roof onto the asphalt, the man was unconscious. A colleague called an ambulance. Upon arrival, you found the man unresponsive to stimuli and his left pupil dilated. No other signs of injury or trauma were detected.

Aired information

(when assessing vital functions that are not reproduced by the simulator itself, the text will be voiced by a member of the committee)

A	<i>Patency of the upper respiratory tract</i>	Visually passable
	<i>Saturation</i>	90%
	<i>When performing O2 insufflation</i>	94%
B	<i>Respiratory rate</i>	15
	<i>Percussion of the lungs</i>	Clear pulmonary sound on the left and right
	<i>Auscultation of the lungs</i>	Vesicular breathing on 2 sides
	<i>Trachea</i>	Normal
	<i>Neck veins</i>	Normal
C	<i>Heart rate</i>	70
	<i>Blood pressure</i>	110/70
	<i>Auscultation of the heart</i>	Clear
	<i>ECG</i>	Sinus rhythm
	<i>Capillary refill</i>	3 s.
	<i>Intravenous access+ laboratory tests</i>	+
	<i>Skin</i>	Normal
D	<i>Pupils</i>	The left pupil is dilated, immobile
	<i>Muscle tonus</i>	Reduced on the left
	<i>Blodd</i>	6.3 mmol/l
E	<i>Palpation of the abdomen</i>	The abdomen is soft, without features
	<i>Femoral arteries</i>	Pulse is symmetrical, well filled
	<i>Varicose veins</i>	Not detected
	<i>Swelling</i>	Not detected
	<i>Back</i>	No visible injuries
	<i>Per rectum</i>	Not required
	<i>Body temperature</i>	36.5

Scenario 1



Sinus rhythm

Therapeutic measures

- Provide oxygen therapy
- Mannitol 15% 1g/kg for 15 minutes

Traumatic pneumothorax

Information (briefing) for the accredited person

An emergency physician is examining a man in his 30s who has been involved in a car accident. The patient was thrown 3 meters away from the car and is lying face down on the highway. Police have already arrived and have cordoned off the area to eliminate traffic hazards. Other victims are already being treated.

Aired information

(when assessing vital functions that are not reproduced by the simulator itself, the text will be voiced by a member of the committee)

A	<i>Patency of the upper respiratory tract</i>	Visually passable
	<i>Saturation</i>	70%
	<i>When performing O2 insufflation</i>	80%
B	<i>Respiratory rate</i>	24
	<i>Percussion of the lungs</i>	Tympanic on the left
	<i>Auscultation of the lungs</i>	Decreased on the left than on the right
	<i>Trachea</i>	Normal
	<i>Neck veins</i>	Swelling
C	<i>Heart rate</i>	130
	<i>Blood pressure</i>	80/40
	<i>Auscultation of the heart</i>	Clear
	<i>ECG</i>	Sinus tachycardia
	<i>Capillary refill</i>	3 s.
	<i>Intravenous access+ laboratory tests</i>	+
	<i>Skin</i>	Cold, cyanotic
D	<i>Pupils</i>	Photoreaction is preserved
	<i>Muscle tonus</i>	Normal
	<i>Blood</i>	6.3 mmol/l
E	<i>Palpation of the abdomen</i>	The abdomen is soft, without features
	<i>Femoral arteries</i>	Pulse is symmetrical, rapid
	<i>Varicose veins</i>	Not detected
	<i>Swelling</i>	Not detected
	<i>Back</i>	No visible injuries
	<i>Per rectum</i>	Not required
	<i>Body temperature</i>	36.5

Scenario 2



Sinus tachycardia

Therapeutic measures

- Provide oxygen therapy
- Puncture of the pleural cavity in the II intercostal space along the midclavicularline along the upper edge of the underlyingrib
- Infusion of 0.9% NaCl solution 500 - 1000 ml i/v drip

Internal bleeding

Information (briefing) for the accredited person

Your team was called to the scene of an accident on a country highway. A young 25 years old male motorcyclist failed to control on wet asphalt and drove off the road. Upon arrival, you found the victim conscious and without visible injuries, but unable to stand on his feet, dizzy and dark in the eyes.

Aired information

(when assessing vital functions that are not reproduced by the simulator itself, the text will be voiced by a member of the committee)

A	<i>Patency of the upper respiratory tract</i>	Visually passable
	<i>Saturation</i>	95%
	<i>When performing O2 insufflation</i>	-
B	<i>Respiratory rate</i>	30
	<i>Percussion of the lungs</i>	Clear pulmonary sound
	<i>Auscultation of the lungs</i>	Vesicular breathing
	<i>Trachea</i>	Normal
	<i>Neck veins</i>	Empty
C	<i>Heart rate</i>	130
	<i>Blood pressure</i>	95/65
	<i>Auscultation of the heart</i>	Rapid
	<i>ECG</i>	Sinus tachycardia
	<i>Capillary refill</i>	4 s.
	<i>Intravenous access+ laboratory tests</i>	+
	<i>Skin</i>	Pale and cold to the touch in all places
D	<i>Pupils</i>	Photoreaction is preserved
	<i>Muscle tonus</i>	Normal
	<i>Blood</i>	6,3 mmol/l
E	<i>Palpation of the abdomen</i>	Painful, tight
	<i>Femoral arteries</i>	Pulse is symmetrical
	<i>Varicose veins</i>	Not detected
	<i>Swelling</i>	Not detected
	<i>Back</i>	No visible injuries
	<i>Per rectum</i>	Not required
	<i>Body temperature</i>	36.5

Scenario 3



Sinus tachycardia

Therapeutic measures

- Tranexamic acid 1g for 8-12 minutes
- Infusion of 0.9% NaCl solution 500 - 1000 ml i/v drip

Algorithm for performing the skills

The algorithm for performing the practical skill can be used to master this skill and prepare for primary accreditation or primary specialized accreditation of health care professionals.

№	Action of the accredited person
1.	Make sure there is no danger to yourself and the victim - look around, show a safety gesture
2.	Assess consciousness: Loudly address him or her, without touching: "Do you need help?" into each of the patient's ears
3.	Call for help
4.	Ensure the availability of kit
5.	Put on gloves
6.	Ask the helper to put on gloves
7.	Comment on all of his or her subsequent actions, give accurate, complete instructions to an assistant (teamwork)
<i>A - Airway patency assessment</i>	
8.	Examine the oral cavity for foreign bodies, liquids, with a tongue blade
9.	Provide pulse oximetry
10.	Provide oxygen therapy if indicated: <ul style="list-style-type: none"> - put on a breathing mask - connect the mask to the oxygen source - Choose the correct flow (minimum/medium/maximum)
<i>B – Respiratory system assessment</i>	
11.	Evaluate respiratory rate (HR) for at least 10 seconds
12.	Perform comparative auscultation of the lungs with a phonendoscope
13.	Perform a comparative percussion of the chest
14.	Examine the trachea and neck veins
<i>C – Assessment of the cardiovascular system</i>	
15.	Evaluate the peripheral pulse: <ul style="list-style-type: none"> - Perform the palpation of the radial and carotid arteries simultaneously on one side of the body for at least 10 seconds - Palpate the radial arteries simultaneously - Count the pulse rate of the radial artery by holding at least three of your fingers in the projection area of the radial artery for at least 10 seconds
16.	Measure blood pressure
17.	Perform heart auscultation
18.	Provide ECG in 12 leads
19.	Provide monitoring of the patient: <ul style="list-style-type: none"> - apply monitor electrodes - connect the monitor

	- make sure there is ECG registration on the monitor
20.	Evaluate the ECG
21.	Provide IV catheter placement (IV access) and draw blood. Send blood for analysis.
22.	Perform a test of the white spot symptom: <ul style="list-style-type: none"> - Press the tip of the nail of the patient's hand, observing the pulsation of the vessels of the nail bed - Release the fingertip and observe the filling (estimate the time interval)
23.	Evaluate the color and condition of the skin with your hands
<i>D – Assessment of the neurological status</i>	
24.	Evaluate the photoreaction of the pupils using a flashlight
25.	Evaluate muscle tone: <ul style="list-style-type: none"> - Perform flexion and extension of each arm and leg
26.	Evaluate blood plasma glucose using a glucometer
27.	Interpret the glucose reading
<i>E – Assessment of general condition</i>	
28.	Perform superficial palpation of the abdomen on four sides of the navel
29.	Palpate the femoral arteries on both sides at the same time
30.	Examine the lower legs and feet: <ul style="list-style-type: none"> - Assess the presence of swelling of the lower extremities - Assess the presence of varicose veins in the lower extremities
31.	Perform a back examination
32.	Perform a rectal examination (if indicated). Change gloves
33.	Measure body temperature
34.	Call the EMC, report: <ul style="list-style-type: none"> - location (address, office) - Number of patients, age, sex - preliminary diagnosis - volume of care to be provided - Make sure the call is answered
35.	Use of medicines: <ul style="list-style-type: none"> - Use the correct and complete set of medicines - use the optimal route of administration - use the correct dosage
36.	Observe the sequence of ABCDE - inspection
37.	Attempt to repeat the ABCDE-examination and make sure that the patient's condition has improved

Check-list

№	Action of the accredited	Evaluation Criteria	
		<input type="checkbox"/> yes	<input type="checkbox"/> no
1	Made sure there was no danger to himself and the victim and, if necessary, ensured safety.	<input type="checkbox"/> yes	<input type="checkbox"/> no
2	Correctly assessed the state of consciousness of the victim.	<input type="checkbox"/> yes	<input type="checkbox"/> no
3	Ensured the availability of styling, and also called the assistant(s)	<input type="checkbox"/> yes	<input type="checkbox"/> no
4	He put on gloves and invited the assistant to put them on	<input type="checkbox"/> yes	<input type="checkbox"/> no
5	A - Correctly assessed airway patency	<input type="checkbox"/> yes	<input type="checkbox"/> no
6	B - pulse oximetry - provided oxygen therapy according to indications	<input type="checkbox"/> yes	<input type="checkbox"/> no
7	B - correct lung auscultation - and correctly interpret the result	<input type="checkbox"/> yes	<input type="checkbox"/> no
8	B - correctly percussion - calculation of NPV - examination of the trachea and neck veins	<input type="checkbox"/> yes	<input type="checkbox"/> no
9	C - assessment of the pulse on the radial and carotid arteries on the one hand - assessment of the pulse on the radial arteries on both sides - blood pressure measurement	<input type="checkbox"/> yes	<input type="checkbox"/> no
10	C - correctly auscultated the heart - and correctly interpret the result	<input type="checkbox"/> yes	<input type="checkbox"/> no
11	C - correctly applied ECG electrodes - and correctly interpret the result	<input type="checkbox"/> yes	<input type="checkbox"/> no
12	C - intravenous access, blood sampling - white spot symptom check - assessment of skin color	<input type="checkbox"/> yes	<input type="checkbox"/> no
13	D - pupil reaction - assessment of muscle tone - measurement of glucose level	<input type="checkbox"/> yes	<input type="checkbox"/> no

14	E - palpation of the abdomen - pulse on the femoral arteries	<input type="checkbox"/> <i>yes</i>	<input type="checkbox"/> <i>no</i>
15	E - back examination, - examination of the legs and feet for the presence of varicose veins and edema	<input type="checkbox"/> <i>yes</i>	<input type="checkbox"/> <i>no</i>
16	E - body temperature	<input type="checkbox"/> <i>yes</i>	<input type="checkbox"/> <i>no</i>
17	E - performed a rectal examination - changed gloves	<input type="checkbox"/> <i>yes</i>	<input type="checkbox"/> <i>no</i>
18	Correctly called the hospital	<input type="checkbox"/> <i>yes</i>	<input type="checkbox"/> <i>no</i>
19	Correctly established the preliminary diagnosis	<input type="checkbox"/> <i>yes</i>	<input type="checkbox"/> <i>no</i>
20	- Use only prescribed medications - used the correct dosage - optimal method of injection - carried out the necessary manipulation according to the indications	<input type="checkbox"/> <i>yes</i>	<input type="checkbox"/> <i>no</i>
21	Conducted an examination of the patient according to the ABCDE algorithm.	<input type="checkbox"/> <i>yes</i>	<input type="checkbox"/> <i>no</i>
22	Commented on your actions	<input type="checkbox"/> <i>yes</i>	<input type="checkbox"/> <i>no</i>

Regulatory and methodological support for the passport

European Resuscitation Council Guidelines 2021:

1. <https://www.msmanuals.com/professional/Injuries-Poisoning/Traumatic-Brain-Injury-TBI/Traumatic-Brain-Injury-TBI>
2. <https://www.amboss.com/de/wissen/Thoraxdrainage - Klinische Anwendung>
3. <https://www.ncbi.nlm.nih.gov/books/NBK532909/>