

MINISTRY OF HEALTH OF THE REPUBLIC OF BELARUS  
EDUCATIONAL INSTITUTION  
BELARUSIAN STATE MEDICAL UNIVERSITY

APPROVED

By Rector, Professor

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PASSPORT (EXAMPLE) OF THE STATION  
FOR OBJECTIVE STRUCTURED CLINICAL EXAMINATION (OSCE)  
“SKIN SUTURE”

Document was translated and adapted.

Academic discipline - "Surgical Diseases"  
Speciality: 1-79 01 01 "General Medicine"

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## RECOMMENDED FOR APPROVAL:

By the Department of Surgical Diseases of Educational Institution "Belarusian State Medical University" (record No. 13 of 29.04.2024)

### 1. Evaluated level of competence

Students of the 6th year studying the specialty 1-79 01 01 "General Medicine" after the completion of the discipline "Surgical Diseases".

Evaluated competence: skin wound suturing.

Aims of the Station:

to evaluate a student's demonstration of skin wound suturing.

It is recommended to inform the students beforehand concerning the following requirements: proper medical clothing must be present, such as surgical scrubs, medical coats, medical shoes, medical gloves.

### 2. Practical skill (manipulation)

Performing skin sutures on various wounds.

### 3. Station duration

General duration of the station - 10 minutes;

actual duration of the station – 9 minutes.

*Table 1*

Actions of the examinee	Time of beginning the action	Time of completing the action	Duration of the action
Acquaintance with the task (briefing)	00:00	01:00	01:00
Station operation	01:00	08:30	07:30
Completion of the station operation	08:30	9:30	01:00

### 4. Information concerning organization of the station

#### Actions of support staff before the station operation

1. Preparation of the station according to the requirements of the Station Passport (workplace of the examination board members, simulation equipment, medical equipment, furniture and other equipment) (tables 2, 3, 4, 5, 6, 7).
2. Placement of the required expendable materials for the Station in accordance with quantity of examination board members).
3. Placement of written task (briefing) before the entrance to the Station.
4. Preparation of a printed Station Passport (3 copies for examination board

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members and 1 copy for support staff).

5. Providing a personal computer for the examination board members.

6. Other actions required for proving the Station operation.

### **Actions of support staff during the station operation**

1. Restoring the Station to its original state after each examinee.

2. Switching on the camera if continuous video registration is absent.

3. Inviting the next examinee not sooner than 1.5 minutes after the previous one.

4. Video registration quality control (in case of necessity).

## **5. Information concerning provision of the station operation**

### **Workplace of an examination committee member (table 2)**

*table 2*

<b>№</b>	<b>Equipment</b>	<b>Quantity</b>
1.	Desktop (countertop)	According to the quantity of examination committee members
2.	Chair	According to the quantity of examination committee members
3.	Printed check-lists	According to the quantity of examination committee members
4.	Ball-point pen	According to the quantity of examination committee members

### **Workplace of an examinee**

A classroom which imitates working space and includes furniture and required equipment (table 3).

*Table 3*

<b>No.</b>	<b>Equipment</b>	<b>Quantity</b>
1.	Instrumental table	1 pc.
2.	Wall clock with second hand or stopwatch	1 pc.
3.	Medical kidney-shaped tray	1 pc.
4.	Container for collecting waste class A (about 10 l)	1 pc.



5.	Container for collecting waste class B (about 10 l)	2 pcs.
6.	Container for disinfection of instruments	1 pc.
7.	Disposable towels (real or imitated)	1 pc.
8.	Liquid soap dispenser (real or imitated)	1 pc.
9.	Antiseptic solution dispenser (real or imitated)	1 pc.
10.	Container for disposed medical equipment	1 pc.

### Simulation equipment

List of simulation equipment	
Name of the simulation equipment	Technical characteristics of the simulation equipment
Dummy skin for working out the skin suture	Realistic layered skin structure with imitation of subcutaneous fat and muscles Possibility of layer-by-layer suturing of the skin cover Realistic tactile characteristics of the skin
Simulation platform: interactive system objective assessment and timing of actions, with video control	Video camera filming close-up surgical field (availability, HD resolution) HD monitor Computer with evaluation program Playing audio and video recordings Broadcasting images from a video camera to monitor Video recording from a video camera Timing of actions performed Possibility of objective assessment of actions

Table 5

### List of medical and other equipment

No.	List of medical equipment	Quantity
1.	Hegar needle holder	1 pc.
2.	Anatomical tweezers	1 pc.
3.	Surgical tweezers	1 pc.

4.	Cooper's Scissors	1 pc.
6.	Scalpel	1 pc.
7.	Hemostatic clamp	2 pcs.
8.	Antiseptic solution for treating hand skin (imitation)	5 ml
9.	Medical gloves	1 pair
10.	Syringes with 25 G needles of various volumes (2, 5, 10 ml)	3 pcs.
11.	Sterile gauze wipes	10 pcs.
12.	Sterile gauze balls	10 pcs.

*Table 4*

Workplace for support staff managing the simulation equipment		
No.	List of equipment	Quantity
1.	Working table	1 pc.
2.	Chair	1 pc.

### 5. Station equipment

#### Required expendable materials (for 1 attempt)

*Table 6*

No.	Expendable materials	Quantity (PC.)
1.	Suture material: polyfilament synthetic absorbable (for example, Polysorb or Vicryl) 3/0, 75 cm long on an atraumatic stabbing needle ½ circle	1
2.	Suture material: monofilament synthetic (e.g. polyamide, nylon) 3/0 or 4/0, 75 cm long on atraumatic back-cutting (or cutting) needle 3/8 or ½ circle	4
3.	Suture material: monofilament synthetic non-absorbable polypropylene (for example, Prolene) thickness USP 6/0-8/0 on two atraumatic stabbing needles	1
4.	Medical gloves	1 pair
5.	Gauze sponges	2

## 6. List of simulated situations and preparation

Table 7

No.	Situation (scenario)
1	Accidental wound
2	Surgical wound
3	Bruised wound

## 7. Information (briefing) for an examinee

You work as a surgeon.

**Your task** is to determine:

- the nature of the wound;
- formulate a clinical diagnosis;
- carry out the necessary treatment measures.

All the performed actions need to be commented on.

### Scenario No. 1.

You are a surgeon at the emergency department of a hospital. While on duty a Patient G., 22 years old, was admitted to the surgical department with complaints of wound in the area of the left hand. The injury occurred about 40 minutes ago, he cut himself with a kitchen knife, first aid was provided by an ambulance medical assistance, the patient was taken to the hospital emergency department.

Upon examination of the patient, the condition is satisfactory. Left hand isolated with an aseptic dressing. The bandage was slightly soaked with blood. After removal of the bandage on the dorsum of the left hand is visualized linear wound with smooth edges, up to 5 cm long, without signs of active bleeding, the direction of the wound is oblique from the 2nd PFJ to the area of the styloid process of the left ulna; during revision, the bottom of the wound is the superficial fascia, no wound tracts or canals were identified, subcutaneous fat was not crushed. Body temperature – 36.3°C. Pulse 102 beats per minute, rhythmic.

Blood pressure – 110/65 mm Hg. Art. Heart sounds are rhythmic. In the lungs, breathing is vesicular. The tongue is moist, not coated. The abdomen is not swollen, soft on palpation, painless in all regions.

1. Formulate a diagnosis.
  2. Justify the type and extent of surgical intervention, carry out surgical intervention.
- All necessary actions that you will perform must be announced.



### **Scenario No. 2.**

You are a surgeon at the surgical department of a Hospital. At the beginning of the working day, patient V. 25 years old, came to the emergency department with complaints of abdominal pain, nausea, vomiting, stool and gas retention, increase in body temperature to 37.7°C. Got sick 12 hours ago.

Hospitalized in the surgical department.

The anamnesis is not burdened, he denies any injury, there were no abnormalities in the diet. He ate freshly prepared food at home. Upon admission to the surgical department, the patient is in moderate condition, body temperature is 38.0°C.

Pulse 110 beats per minute, rhythmic. Blood pressure – 120/70 mm Hg. Art. The tones are rhythmic. Positive clinical symptoms of acute appendicitis.

Indications for surgical treatment were revealed, operation performed: laparotomy transversely variable access according to Fowler-Weir in the right l/lateral quadrant, appendectomy of phlegmonous changed vermiform appendix, suturing wounds of the peritoneum, muscles, aponeurosis.

It is necessary to produce suturing of subcutaneous fat and skin.

1. Justify the type of surgical intervention, finish surgical intervention.

### **Scenario No. 3.**

You are a surgeon at a hospital emergency department. Patient B., 38 years old, was brought to the department by ambulance with a preliminary diagnosis of a bruised wound of the right thigh. He was wounded near an hour ago. The patient complains of pain in the wound area. The wound area is isolated with an aseptic dressing. The bandage is moderately wet with blood. After removing the bandage along the outer surface in the area of the middle third of the right thigh, a wound with uneven edges and dimensions is visualized about 7x3 cm, with no signs of active bleeding. General direction of the wound is oblique-transverse. During inspection the bottom of the wound is the superficial fascia, identified wound “pockets”, subcutaneous fatty tissue is not crushed. The decision to perform primary surgical treatment of the wound, drainage and suturing the wound with separate interrupted sutures was made.

1. Formulate a diagnosis.

2. Justify the type and extent of surgical intervention, carry out surgical intervention.

All necessary actions that you will perform must be announced.



## 8. Information (briefing) for an examiner

### Examination committee members actions before the Station operation

1. Checking whether the Station is equipped fully in accordance with the requirements of the Station Passport (workplace of the examination board members, simulation equipment, medical equipment, furniture and other equipment).

2. Checking the placement of the required expendable materials for the Station in accordance with quantity of examination board members).

3. Checking the placement of written task (briefing) before the entrance to the Station.

4. Checking the printed Station Passport.

5. Checking the printed copies of check-lists according to the quantity of the examination board members) or checking digital data in the computer version of the check-list (credentials of the examinee and number of the scenario).

### Examination committee members actions during the Station operation

1. Identifying the examinee, writing down the identification number into the checklist (printed or digital).

2. Check-list filling – the registration of actions regarding their consequence and correspondence of the actions to the criteria.

3. Filling in the list of defects (in case of necessity).

**Nota bene!** The examiner must refrain from any personal communication with the examinee except for the required communication. The examiner must not ask additional questions, argue with the examinee, or comment on their actions. In case anything should be mentioned, it must be written down in the list of defects.

When assessors evaluate the actions of examinees, important actions are:

Situation (scenario) No. 1.

1. Prepared the necessary materials for primary surgical treatment wound instruments and supplies.

2. Treated the edges of the wound with an antiseptic solution, the wound antiseptic solution, performed a revision of the wound.

3. Performed primary surgical treatment of the wound with an announcing the technique of performing the manipulation.

4. Formulated the final clinical diagnosis.

### Situation (scenario) No. 2.

1. Prepared the necessary materials for suturing the postoperative wound after appendectomy, instruments and consumables.
2. Performed suturing of subcutaneous fatty tissue (single-row vertical interrupted suture with knots directed deep into the wound) and skin (with an intradermal continuous suture) with announcing of the technique.
3. Formulated the final clinical diagnosis.

### Situation (scenario) No. 3.

1. Prepared the necessary materials for primary surgical treatment wound instruments and supplies.
2. Treated the edges of the wound with an antiseptic solution, the wound antiseptic solution, performed a revision of the wound.
3. Performed primary surgical treatment of the wound with an announcing the technique of performing the manipulation.
4. Identified wound “pockets”, found their lowest points, taking into account subsequent stay of the patient (bed and semi-bed rest), performed counter-apertures on the skin and installed drainages.
5. Formulated the final clinical diagnosis.

## **9. Reference documents and educational materials used for the station**

### **Passport**

1. Egiev V. N. Surgical suture / Egiev V. N., Buyanov V. M., Udotov O. A. – M.: Medpraktika-M, 2001. – 109, [2] p. : ill.
2. Kozlov V.G., Balshov A.V. Skin suture: educational method. allowance /Kozlov V.G., Balshov A.V. – Minsk: BSMU, 2016. – 12 p.
3. “Specific sanitary and epidemiological requirements for maintenance and operation of healthcare organizations, other organizations and individual entrepreneurs who provide medical, pharmaceutical activities”: resolution of the Council of Ministers Republic of Belarus dated 03.03.2020 No. 130: with amendments and additions.

## **10. Information for the standardized patient**

Not provided.

## **11. Information for a standardized colleague**

Not provided.

## 12. Criteria for evaluating the examinee's actions

### Check-list for evaluation of Objective Structured Clinical Examination Station "Skin suture"

Student's credentials \_\_\_\_\_

Faculty \_\_\_\_\_ group \_\_\_\_\_ course \_\_\_\_\_

Department \_\_\_\_\_

Practical skill (manipulation): performing skin sutures on various wounds

*Table 9*

No.	Action execution parameter	Mark in points execution – 1 failure – 0 partial fulfillment – 0.5
1.	Formulated a clinical diagnosis	
2.	Determined the type and volume of surgical help	
3.	Selected the right tools necessary for suturing the skin: 1. Hegar needle holder 2. Anatomical tweezers 3. Surgical tweezers 4. Cooper scissors 5. Scalpel 6. Hemostatic clamp	
4.	Correctly selected suture material: polyfilament synthetic absorbable (for example, Polysorb or Vicryl) 3/0, length 75 cm on atraumatic piercing needle ½ circle	
5.	Correctly grasped the needle in the jaws needle holder and correct stitching tissue (rotational movement)	
6.	Performed precise stitching of anatomical skin structures - internal stitches no further 0.5 cm from the edge of the skin. Stitches are not applied further 10 mm apart	



7.	Made the correct knot formula: four half knot; first half knot – double, 2nd, 3rd, 4th – single	
8.	Formed half knots in alternating directions	
9.	Correctly tightened the knots (no diastasis of the edges, no edge interposition, no ligatures cut through)	
10.	Formulated the final clinical diagnosis	
	Final mark in points	

(Name of examiner) \_\_\_\_\_

(signature) \_\_\_\_\_

Date \_\_\_\_\_

**12.2. Scale for deducting points for the evaluation sheet (checklist) No. \_\_\_\_\_**

*Table 10*

Description of action elements <sup>1</sup>	Execution level

**13. List of defects**

to the assessment sheet (checklist) No. \_\_\_\_\_

for the examination station "Skin suture"

objective structured clinical examination (OSCE)

in the academic discipline "Surgery"

Student's name \_\_\_\_\_

Faculty \_\_\_\_\_ group \_\_\_\_\_ course \_\_\_\_\_

Department \_\_\_\_\_

Practical skill (manipulation): performing skin sutures on various wounds.

*Table 11*

No.	List of unregulated and unsafe actions not included in evaluation sheet (check list)	Date	Examiner signature

No.	List of additional actions, of clinical significance, not included in the assessment sheet (checklist)	Date	Examiner signature

*If necessary, possible errors are described, indicating their impact on the assessment element*

Recommendations for organizing the "Skin Suture" OSCE station when conducting the next exam

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*(Name of examiner)*

*(signature)*

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