

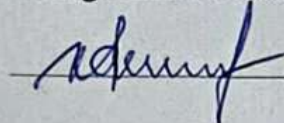
MINISTRY OF HEALTH OF UKRAINE  
NATIONAL PIROGOV MEMORIAL MEDICAL UNIVERSITY, VINNYTSYA

«APPROVED»

at Methodical Council of surgical disciplines

Protocol №5 from 19/03/2025

Acting Head of Methodical Council

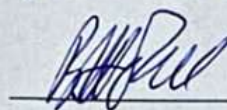


Serhiy KHIMICH

«AGREED»

Head of the Examination Commission №3

«20» March 2025 p.



Vadym ZHEBEL

**EXAM MATERIALS**

**STATION №5 “STANDARDIZED PATIENT IN A SURGICAL CLINIC”  
OSP(C)E**

**SPECIALTY**

**222 Medicine**

**EDUCATIONAL PROGRAM**

**«Medicine»**

**FACULTY**

**Faculty of Foreign Citizens Training**

## APPENDICES TO EXAM MATERIALS

1. Instructions for students' work at the station (Appendix 1)
2. List of practical skills (Appendix 2)
3. Algorithms for performing practical skills (Appendix 3)
4. Sample task (Appendix 4)
5. Regulatory documents (Appendix 5)

Appendix 1

### INSTRUCTIONS FOR STUDENTS' WORK AT THE STATION № 5 «STANDARDIZED PATIENT IN A SURGICAL CLINIC»

**THE FOLLOWING COMPETENCES ARE ASSESSING:** communication; complaints, anamnesis; objective examination; diagnostics; patient's management and treatment tactics; ethical aspects. The station also provides for the control of technical skills from the list of medical manipulations according to List 5 of the Higher Education Standard for specialty 222 "Medicine".

The higher education applicant is required to greet and present the examiner with the identification number that was assigned during registration with the OSP(C)E. The students' work at the station is video recording.

Every student receives an assignment based on a specific clinical scenario. Work at the station involves interaction with a tutor who plays the role of a standardized patient (mostly) or doctor's assistant according to scenario.

Before starting communication with the tutor, the student familiarizes himself with the "Student assignment". Then he clearly completes it according to the following scheme.

Stages of work	Instructions
Beginning of interaction with the patient	Greet and introduce yourself (without giving your last name). Briefly explain the essence of the communication to the patient. Consider ethical and legal aspects: obtain consent for further actions, warn about possible unpleasant sensations.
Collection of complaints and medical history	Collect complaints and detail them. Collect medical and life history. Avoid excessive immersion in information that does not relate to the main complaints.
Objective examination	Before and after contact with the patient, treat your hands with an antiseptic. Use the information provided in the condition. Indicate any deviations in vital signs. Conduct the examination according to the scenario. A list of symptoms is given after the table.
Diagnostics	Each task is accompanied by the result of diagnostic procedures. Name and interpret the deviations in laboratory indicators. Interpret the X-ray, sonographic or endoscopic image. The list of examinations is given after the table. Formulate the diagnosis. Suggest additional diagnostic methods, if provided for by the scenario.
Management and treatment tactics	When determining surgical tactics, name the necessary interventions. Offer medication, indicate the doses and method of administration of drugs. The list of medicines is given after the table.
Technical skill	It is performed according to the algorithm presented in a separate appendix. For different tasks, it may apply to different stages of work (objective examination, diagnostics, emergency care)
Exam completion	Say goodbye to the patient. Confirm task completion

**List of symptoms that are expected to be demonstrated when solving tasks at Station 5**

- Blumberg's sign
- McBurney Point
- Kocher's symptom
- Murphy sign, Ortner's symptom
- Marx-Ortolani symptom (on a manikin)

**List of practical skills and abilities  
that are expected to be demonstrated when solving tasks at Station 5**

Objective examination of the chest  
Objective examination of the abdomen  
Objective examination of the lower extremities  
Objective examination of the neck  
Objective examination of the mammary gland on a manikin  
Demonstration of above mentioned symptoms  
Determination of hepatic dullness  
Palpation of the pulse on the dorsal arteries of the feet, posterior tibial arteries  
Diagnostic thoracentesis on a manikin  
Rectal examination on a manikin  
Interpretation of laboratory test results: complete blood count, biochemical blood test, urine test (general, for enzyme content), sputum test, pleural fluid test;  
Interpretation of images obtained as a result of: Chest radiography, Abdomen radiography, arteriography, CT, irrigography, mammography, esophagography, abdominal ultrasound, vascular ultrasound, FEGDS.

**Approximate list of medications for use when solving tasks at Station 5  
(other drugs from the specified groups or with similar effects are allowed)**

Antibiotics (amoxicillin 1000/clavulanate 200; cefepime 1.0; amikacin 0.5; if anaerobes are expected + metronidazole 0.5)  
Analgetics (Ketoprofen 5% 2ml; paracetamol 1% 100ml; morphine 1% 1ml)  
NSAIDs (Diclofenac sodium 2.5% 3ml)  
Spasmodics (Drotaverine 2% 2ml)  
Iron preparations (Ferum-lek 2ml)  
Plasma substitutes (saline sodium chloride solution; Ringer's solution).

**Duration of work at the station 8 min.**

After completing the work or the time spent at the station has expired, return the task to the teacher, wait for the signal to end and leave the station. After the time spent at the station has expired, the examiner does not accept an answer. The examiner is an observer of your actions and does not provide instructions, comment, or additional questions.

After passing the station, the student moves to another one according to the route sheet.

**It is FORBIDDEN** to communicate with the examiner (except in cases related to security issues, deterioration of well-being, unforeseen circumstances, etc.), use educational and auxiliary materials, use gadgets, transmit, copy, and distribute any information related to the exam and not publicly available. If a candidate for higher education violates the above norms, his/her exam is terminated, and the exam grade is given as "failed" (violation of the rules of academic integrity).

**BRING** gloves and a stethoscope.

Appendix 2

**LIST OF PRACTICAL SKILLS AT THE STATION**

№	Diagnosis	Syndromes	Objective examination	Diagnostics, manipulations
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1	Acute calculous cholecystitis	Abdominal pain Dyspepsia Intoxication	Abdominal examination Symptoms identifying (Murphy sign, Ortner's symptom)	Interpretation of CBC, biochemical blood test Interpretation of US
2	Perforating ulcer	Abdominal pain	Abdominal examination Symptoms identifying Determination of hepatic dullness	Interpretation of CBC, Interpretation of X-ray
3	Obliterating atherosclerosis of the lower extremities vessels	Leg pain Symptoms of chronic ischemia	Examination of the lower extremities Pulse palpation on the dorsal arteries of the feet, Pulse palpation on the posterior tibial artery	Interpretation of biochemical blood test Interpretation of angiogram
4	Liver abscess	Abdominal pain  Intoxication	Abdominal examination including determination of the lower edge of the liver	Interpretation of CBC, biochemical blood test Interpretation of US
5	Lung abscess	Bronchopulmonary syndrome Intoxication Hemoptysis	Chest examination	Interpretation of CBC, sputum test, Interpretation of X-ray
6	Pleural empyema	Chest pain, Intoxication Respiratory failure	Chest Examination Demonstration of thoracentesis point	Interpretation of CBC, biochemical blood test, pleural fluid test Interpretation of X-ray
7	Colon cancer	Constipation Intoxication Chronic anemia	Rectal examination on a manikin	Interpretation of CBC, Interpretation of X-ray Drawing up a diagnostic plan
8	Breast cancer	Breast lump	Palpation of a breast mass on a manikin	Interpretation of CBC, Interpretation of mammography Drawing up a diagnostic plan
9	Choledocholithiasis. Mechanical jaundice	Abdominal pain Intoxication Mechanical jaundice	Abdominal examination Murphy sign, Ortner's symptom	Interpretation of CBC, biochemical blood test, Interpretation of X-ray
10	Acute pancreatitis	Abdominal pain Intoxication Paretic obstruction	Abdominal examination	Interpretation of CBC, biochemical blood test, urine test Interpretation of US
11	Acute appendicitis	Abdominal pain Dyspepsia, paresis Intoxication	Abdominal examination	Interpretation of CBC Interpretation of US
12	Achalasia of the esophagus	Dysphagia Pain behind the sternum Regurgitation	Neck palpation	Interpretation of X-ray Drawing up a diagnostic plan
13	Colon	Abdominal pain	Rectal examination on a	Interpretation of CBC,

	diverticulosis, diverticulitis	Intoxication Paresis	manikin	Interpretation of X-ray
14	Congenital hip dislocation (pediatric surgery)	Lower limb asymmetry Hip dysfunction	Marx-Ortolani symptom (on a manikin)	Drawing up a diagnostic plan
15	Hiatal hernia	Chest pain GERD reflux Chronic anemia	Abdominal examination	Interpretation of CBC Interpretation of X-ray Drawing up a diagnostic plan

### Appendix 3

## ALGORITHMS FOR PRACTICAL SKILLS PERFORMING

### Rectal examination on a manikin.

- Emphasize that you are explaining the essence of the manipulation to the subject, warning about possible unpleasant sensations and obtaining consent for further actions.
- Put on gloves.
- Emphasize that you have examined the anal area
- Emphasize that you have used lubricant. Carefully insert your index finger into the anus. Advise the patient to strain as if defecating and to relax as much as possible during the examination.
- Consistently examining the walls of the anal canal, assess the elasticity, tone and elasticity of the anal sphincter, the condition of the mucous membrane, the presence and degree of pain of the examination.
- Pass a finger into the rectal ampoule, determining the state of its lumen (gaping, narrowing), sequentially examine the intestinal wall over the entire surface and throughout the entire accessible length, pay attention to the state of the prostate gland (in men), recto-vaginal septum, cervix (in women), pararectal tissue of the inner surface of the sacrum and coccyx.
- After removing the finger from the rectum, assess the nature of the discharge (feces, bloody, purulent).
- Remove gloves, put them in a waterproof bag, treat hands.

### Diagnostic thoracentesis on a manikin

- The initial condition is that you use sterile materials.
- Emphasize that you explain the essence of the manipulation to the subject, warn about possible unpleasant sensations and obtain consent for further actions.
- Put on gloves.
- Determine the puncture site. In the patient's prone position, this is the V intercostal space along the midclavicular line, in the sitting position - the VI or VII intercostal space along the posterior axillary line.
- Emphasize that you treat the puncture site with an antiseptic.
- Take a 20 ml syringe. Emphasize that you are drawing local anesthetic (2% lidocaine) and performing infiltrative anesthesia. Anesthesia is not performed on an unconscious patient.
- Puncture the chest wall. Pull the piston towards you. Emphasize that you have obtained pathological contents in accordance with the scenario. Remove the needle with the syringe and place it in a tray or in a marked place. State what you are going to do with the contents.
- If you have a mannequin without a special puncture site, describe the procedure.
- Remove gloves, place them in a waterproof bag, and treat your hands

### Demonstration of the Blumberg symptom.

- Briefly explain the essence of the manipulation to the patient.

- Warn about possible unpleasant sensations. Obtain consent for further actions.
- Ask the patient to lie down on his stomach, slightly bend his knees and relax the muscles of the anterior abdominal wall. Sit to his right.
- Specify the location of the painful area.
- Conduct an external examination of the abdomen for symmetry, absence/presence of protrusions, participation of the anterior abdominal wall in respiratory movements.
- Place your right hand without pressure on the anterior abdominal wall and slowly immerse the tips of the half-bent II-IV fingers, fix the hand of your hand in this position for 2-3 seconds. Assess the severity of the patient's pain.
- Important! Avoid sharp and excessive pressure on the abdominal wall. Adjust the depth of immersion of your fingers according to the intensity of the patient's pain so as not to cause him additional suffering. Be careful not to damage the skin with your nails.
- Quickly remove your hand from the anterior abdominal wall and similarly assess the severity of the patient's pain; watch the patient's face: consider involuntary pain reactions (cry, grimace, shudder).

Check the symptom first in the patient's non-painful area of the abdomen, then in the painful areas.

**Kocher's symptom** – when questioning, establish the fact of pain moving from the epigastric to the right iliac region

**Ortner's symptom** - with your right hand rib, apply measured blows to the costal arches. With a positive symptom, pain occurs on the right.

**Murphy's symptom** - place the left palm under the right costal arch so that the thumb presses deeply into the abdominal wall in the projection of the gallbladder; ask the patient to take a deep breath - it is interrupted due to the occurrence of pain.

**Marx-Ortolani symptom** – when the child's legs bent at the knee joints are spread apart, a "clicking" sensation occurs in the hip joint on the affected side (demonstration on a manikin).

**McBurney's point** is the name of a point in the right half of the abdomen, which is located one-third of the distance from the anterior superior iliac spine to the navel.

Appendix 4

## SAMPLE ASSIGNMENTS

### Station No. 5. Standardized patient in a surgical clinic.

#### Student assignment

You are an emergency room doctor.

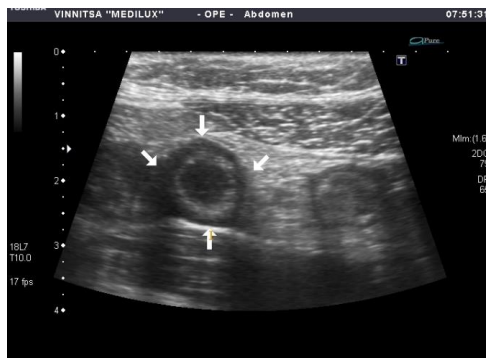
A patient with abdominal pain has admitted.

T: 38.1°C; BP: 122/80 mm Hg; RR: 18/min.; P: 92/min, SpO2 98%.

Auscultation of the chest reveals clear breath and cardiac sounds. Percussion of the chest is resonant. Bowel sounds slightly decreased.

1. Introduction. Start an interaction with the patient. Consider legal and ethical aspects.
2. Anamnesis. Collect patient's complaints, history of present illness, past medical and social anamnesis.
3. Physical examination. Make a physical examination of the abdomen (inspection, palpation, percussion, auscultation). Indicate the McBurney point. Determine Blumberg symptom.
4. Diagnostic. Interpret the blood test results. Interpret the Ultrasound image. Formulate the diagnosis.
5. Tactics and treatment. Suggest a surgical tactics. Prescribe medications.
6. Complete the work at the station.

<b>Complete Blood Count</b>	
Hemoglobin	148 g / l
Erythrocytes	$4.2 \times 10^{12} / l$
Leucocytes	$11.7 \times 10^9 / l$
basophils	0%
eosinophils	1%
Neutrophils premature	11%
neutrophils segmental	71%
lymphocytes	10%
monocytes	7%
Platelet count	$180 \times 10^9 / l$
ESR	20 mm / h



### Assessment checklist

<b>№</b>	<b>Components of the clinical case being evaluated</b>	<b>Number of points per position</b>	<b>Number of points of the student</b>
<b>1</b>	<b>Communication skills</b>	<b>0,75</b>	
	The student introduced himself and greeted	0,3	
	Briefly explained the essence of the communication	0,15	
	Notified the end of the interaction and said goodbye	0,3	
<b>2</b>	<b>Collection of complaints and medical history</b>	<b>1,5</b>	
	Conducted detailed pain analysis	0,6	
	Traced the dynamics of symptoms, focused on Kocher's symptom	0,3	
	He experienced a single bout of vomiting and symptoms of intoxication.	0,3	
	Clarified past illnesses, allergic, social, and professional history	0,3	
<b>3</b>	<b>Objective examination</b>	<b>0,9</b>	
	Treated hands with antiseptic before and after contact with the patient	0,3	
	Examined the abdomen and showed McBurney's point.	0,3	
	Identified the Blumberg symptom	0,3	
<b>4</b>	<b>Diagnostics</b>	<b>1,05</b>	



	Neutrophilic leukocytosis was detected, and the leukocyte formula shifted to immature forms (left).	0,3	
	Detected a "target" symptom on a sonogram.	0,3	
	Formulated the diagnosis: Acute appendicitis	0,45	
<b>5</b>	<b>Determining management and treatment tactics</b> Note: for prescribing a drug without dosage, the student receives half of the prescribed grade	<b>1,2</b>	
	Urgent surgery (appendectomy), optimally laparoscopic	0,6	
	Antibiotic: protected penicillin/cephalosporin/aminoglycoside + metronidazole in standard dosage	0,3	
	Painkiller in standard dosage	0,3	
<b>6</b>	<b>Legal and ethical aspects:</b>	<b>0,6</b>	
	Received consent for examination	0,3	
	Warned about possible unpleasant sensations	0,3	

## Appendix 5

### REGULATORY DOCUMENTS

- Збірник клінічних рекомендацій. Хірургія.Ортопедія травматологія. Інтенсивна терапія. Київ 2024. [https://health-ua.com/multimedia/userfiles/files/2024/ZKR\\_Hirurg\\_2024/ZKR\\_Hirurg\\_2024.pdf](https://health-ua.com/multimedia/userfiles/files/2024/ZKR_Hirurg_2024/ZKR_Hirurg_2024.pdf)
- Наказ МОЗ України № 714 від 25.04.2024 «Бойова торакальна травма»
- Невідкладні стани в хірургії / С.Д. Хіміч, М.І. Бурковський, О.А. Вільцанюк та ін.; за редакцією С.Д. Хіміча. Всеукраїнське спеціалізоване видавництво «Медицина», 2025, 487с.
- Невідкладні стани в хірургії: навч. посіб. / К.М. Бобак, А.І. Бобак, В.В. Кирегівта ін.; за ред. Л.М. Ковальчука. – К.: Медицина, 2017. — 560 с.
- Радзіховський А.П., Семенюк Ю.С., та ін. "Еталони практичних навичок для лікарів по спеціальності хірургія". - Київ-Рівне. - 2001. - 22 с.
- Уніфікований клінічний протокол екстреної медичної допомоги «Травма органів грудної клітки. Пневмоторакс» (Наказ Міністерства охорони здоров'я України № 612 від 21.06.2016)
- Основні теми загальної та невідкладної хірургії: посібник зі спеціалізованої хірургічної практики: 7-е видання / ред. Г'ю М. Патерсон, Кріс Дінс. переклад Core Topics in General and Emergency Surgery: A Companion to Specialist Surgical Practice, 7th edition (2024), Всеукраїнське спеціалізоване видавництво «Медицина», 2024, 320с.
- Хірургія: підручник / О.Ю. Усенко, Г.В. Білоус, Г.Й. Путінцева. Всеукраїнське спеціалізоване видавництво «Медицина», 2021. – С.345-415.
- Хірургія : у 2-х томах. Т. 1, 2 : підручник / [С.О. Бойко, О. О. Болдіжар, П.О. Болдіжар та ін.] ; за ред.: П. Г. Кондратенка, В. І. Русина. – Вінниця: Нова Книга, 2019. ISBN 978-966-382-732-2
- Essentials of general surgery and surgical specialties / senioreditor, Peter F. Lawrence; editors, Matt Smeds, Jessica Beth O'Connell. Sixth edition. Philadelphia: Wolters Kluwer Health, [2019] Identifiers: LCCN 2018039787 | eISBN: 9781496351050