

**MINISTRY OF HEALTH OF UKRAINE
VINNYTSIA NATIONAL PIROGOV MEMORIAL MEDICAL
UNIVERSITY**

«APPROVED»

at Methodical Meeting
of pediatric disciplines

Protocol № 8 _ «21» _03_ 2025

The Head

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«AGREED»

Head of Examination

Commission №. 1

« 21 _ » _____ 03 _____ 2025 p.

_____ Anna DEMCHUK

EXAMINATION MATERIALS

STATION №7 “STANDARDIZED PATIENT IN PEDIATRICS” OSCE

SPECIALTY	222 Medicine
EDUCATIONAL PROGRAM	« Medicine »
FACULTY	Faculty of Foreign Citizens Training

APPENDICES TO THE EXAMINATION MATERIALS:

1. Student instructions at the station (Appendix 1)
2. List of practical skills (Appendix 2)
3. Algorithms for practical skills performance (Appendix 3)
4. Sample task (Appendix 4)
5. Regulatory documents (Appendix 5)

Appendix 1

INSTRUCTIONS FOR STUDENTS AT STATION № 7 “STANDARDIZED PATIENT IN PEDIATRICS”

A higher education applicant (HEA) at the station with a standardized patient must:

- Greet, introduce themselves, get acquainted with the patient/their representatives, establish contact with the child, and ask open-ended questions.
- Collect a targeted medical history – inquire about complaints, clarify them (what the patient associates them with, duration, etc.).
- Perform a physical examination. Before performing the examination, explain the purpose of the procedure, sanitize hands, and ask for permission; assess vital signs: measure body temperature, oxygen saturation, respiratory rate, and heart rate.
- Engage in dialogue with the patient regarding the possible diagnosis/condition and differential diagnosis – explain the reasoning behind the diagnosis and provide clarification regarding differential diagnoses.
- Assign a diagnostic plan and assess the results of the data obtained, formulate a final diagnosis.
- Determine management and treatment – discuss regimen and diet according to age, prescribe medical therapy.
- Wait for the signal indicating the end of time at the station, leave the station, and proceed to the next one.

The following competencies are evaluated: communication; complaints, history taking; physical examination; ethical aspects; diagnostics; management and treatment.

Duration of the station: 8 minutes.

The HEA is prohibited from:

- Communicating with the examiner
- Using educational or auxiliary materials
- Using electronic devices
- Sharing, copying, or distributing any information related to the exam that is not publicly available

Note: If the above rules are violated, the HEA's exam attempt is terminated, and the exam is marked as "failed" (violation of academic integrity policy).

Must have with them: gloves, stethoscope

Appendix 2

LIST OF PRACTICAL SKILLS AT THE STATION

№	Diagnosis	Symptom	Physical Examination	Diagnostics
1	Acute lymphoblastic leukemia	Hemorrhagic rash	General condition assessment and clinical examination. Vital signs assessment.	Interpretation of laboratory and instrumental methods.
2	Newly diagnosed bronchial asthma	Shortness of breath, cough		
3	Duodenal ulcer	Nausea, periodic abdominal pain		
4	Congenital heart defect: coarctation of the aorta	Elevated blood pressure		
5	Acute viral hepatitis A	Abdominal pain, jaundice of the skin and sclera		
6	Hemolytic disease of the newborn	Jaundice of the skin		
7	Hemorrhagic disease of the newborn	Vomiting, rash		
8	Community-acquired right lower lobe pneumonia	Cough		
9	Congenital heart defect: Tetralogy of Fallot	Cyanosis		
10	Type 1 diabetes mellitus	Frequent urination, weight loss		
11	Juvenile idiopathic arthritis	Knee joint pain		
12	Chickenpox	Rash		
13	Acute glomerulonephritis	Edema		
14	Acute pyelonephritis	Dysuric		

		symptoms		
15	Iron-deficiency anemia	Pallor		

Appendix 3

ALGORITHMS FOR PERFORMING PRACTICAL SKILLS

The HEA at the station with the standardized patient must:

- Greet, introduce themselves, get acquainted with the patient/their representatives, establish contact with the child, and ask open-ended questions.
- Collect a targeted history: inquire about complaints, clarify the complaints (what they associate with, how long they have lasted, etc.).
- Conduct an objective examination. Before the examination, explain the purpose to the patient, perform hand sanitation, and ask for permission; assess vital parameters: body temperature, oxygen saturation, respiratory rate, and heart rate.
- Communicate with the patient about the possible diagnosis/condition and differential diagnosis – explain your reasoning, provide information/explanations about differential diagnosis.
- Prescribe an examination plan and assess the obtained data; formulate a final diagnosis.
- Define treatment and management – discuss regimen and diet according to age, prescribe medication.
- Wait for the signal about the end of the station time, leave the station, and proceed to the next one.

Appendix 4

SAMPLE TASK

Station № 7 «Standardized Patient in Pediatrics»

Clinical Case №1

A mother with her 5-year-old child complains about severe skin pallor and the appearance of multiple bruises on the skin.

Vital signs:

- Body temperature – 38.2°C
- RR – 22/min
- HR – 110/min
- SpO2 – 99%

Task:

1. Demonstrate communication skills.
2. Collect targeted history considering the complaints and age of the patient.

3. Perform a physical examination.
4. Discuss the possible diagnosis/condition and differential diagnosis.
5. Prescribe an examination plan and evaluate the results of additional laboratory and instrumental studies, formulate the final diagnosis.
6. Define the treatment and management of the patient.

Dialogue Scenario – Tutor-Student

Student's Question	Tutor's Answer
When did the bruises start appearing?	About a week ago.
Did the child get injured or fall?	No, bruises increased after sleep.
Is there fever?	Yes, every 2–3 days, relieved with paracetamol.
Are there any catarrhal symptoms (e.g., rhinitis)?	No.
Bone pain or swelling of joints?	Often has leg pain, no joint swelling observed.
Appetite, sleep, or consciousness changes?	None.
Any breathing difficulties or dyspnea?	None.
Abdominal complaints or stool changes?	None.
Contact with sick individuals?	No.
Recent viral infections (last 14 days)?	No.
Vaccination status?	Vaccinated according to schedule.
Previous home treatment?	Received antibacterial therapy, no improvement.
Allergy history?	Not burdened.

Physical Examination Findings

- Skin and visible mucosa: pale, multiple petechiae and ecchymoses of various colors on the lower extremities
- Lymph nodes: palpable in all peripheral groups, up to 1.5 cm, firm, painless
- Joint inspection: normal
- Lung auscultation: vesicular breathing, no rales
- Heart auscultation: rhythmic heart sounds, no pathological accents or murmurs
- Abdominal palpation: soft, non-tender, no signs of peritoneal irritation, liver palpable 4 cm below costal margin, spleen 5 cm

Additional Laboratory and Instrumental Study Results

1. Hemogram: Hb 82 g/L, RBC $2.1 \times 10^{12}/L$, WBC $3.2 \times 10^9/L$, blasts 75%, segmented 5%, eosinophils 2%, monocytes 3%, lymphocytes 15%, platelets 2%, ESR 74 mm/h
2. Bone marrow examination:
 - Cytology: 92% blasts
 - Cytochemistry: PAS reaction positive for glycogen
 - Cytogenetics: no translocations found
 - Immunophenotyping: acute lymphoblastic leukemia
3. Chest X-ray: mediastinum not widened
4. CSF analysis: no blasts found

STATION OSCE EVALUATION CHECKLIST

	Components of Clinical Case Execution Being Evaluated	Maximum Points per Item	Student's Score
1	Communication Skills of the HEA (Communication)	0.75	
	Introduced themselves	0.15	
	Got acquainted with the patient/their representatives (name, age of the patient)	0.15	
	Established contact with the child – “eye-to-eye” contact. Asked open-ended questions	0.15	
	Did not interrupt or stop the patient	0.15	
	Listened attentively, showed empathy	0.15	
2	Collected Targeted Medical History (Complaints, Anamnesis)	1.35	
	Disease onset. When did the bruises first appear? Did the child fall or get injured?	0.15	
	Presence of fever, catarrhal symptoms (e.g. rhinitis), breathing difficulty or dyspnea	0.15	
	Bone pain or joint swelling?	0.15	
	Changes in appetite, sleep, or consciousness	0.15	
	Abdominal complaints, stool changes	0.15	
	Contact with other sick individuals or recent viral illness (within 14 days)	0.15	
	Vaccination status	0.15	
	Previous home treatment	0.15	
	Allergy history	0.15	
3	Physical Examination	1.5	
	Hand disinfection performed	0.15	

	Asked permission to begin physical examination	0.15	
	Informed the patient about subsequent actions and areas to be examined	0.15	
	Assessed vital signs: temperature, SpO2, RR, HR	0.15	
	Evaluated skin and visible mucosa	0.15	
	Palpated lymph nodes	0.15	
	Joint examination	0.15	
	Lung auscultation	0.15	
	Heart auscultation	0.15	
	Abdominal examination and palpation	0.15	
4	Dialogue About Possible Diagnosis/Condition and Differential Diagnosis (Ethical Aspects)	0.9	
	Explained reasoning for the possible diagnosis	0.3	
	Obtained feedback from the patient, answered their questions	0.3	
	Provided information/clarification on differential diagnosis	0.3	
5	Patient Examination Plan and Evaluation of Results. Final Diagnosis (Diagnostics)	0.75	
	Hemogram: anemia, leukopenia, thrombocytopenia, leukemic hiatus, elevated ESR	0.15	
	Bone marrow aspiration with cytological, cytochemical, cytogenetic studies and immunophenotyping (cytology: increased blasts, cytochemistry – positive PAS, cytogenetics – no translocations, immunophenotyping – acute lymphoblastic leukemia)	0.15	
	Chest X-ray: mediastinum not widened	0.15	
	CSF study: no blasts	0.15	
	Final diagnosis: acute lymphoblastic leukemia	0.15	
6	Management and Treatment	0.75	
	General regimen	0.15	
	Age- appropriate diet	0.15	
	Polychemotherapy per protocol over 2 years (vincristine, doxorubicin, methotrexate, prednisolone) including induction, consolidation, re-induction, and maintenance phases	0.45	
	Maximum Total Score for the Station	6.0	

REGULATORY DOCUMENTS (from the last 5 years) used in the development of clinical cases:

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20. *Global Strategy for Asthma Management and Prevention* (2018 update).
21. Jaundice in newborn babies under 28 days: NICE guideline 2016 (CG98). *BMJ Journals*. 2017; 102(4).
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