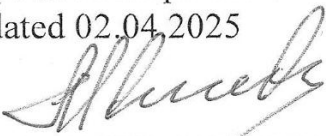



MINISTRY OF HEALTH OF UKRAINE
NATIONAL PIROGOV MEMORIAL MEDICAL UNIVERSITY, VINNYTSYA

<p>"APPROVED"</p> <p>at the meeting of the profile methodological council of therapeutic disciplines protocol No. 4 dated 02.04.2025</p> <p>Chairman</p>  <p>Mykola STANISLAVCHUK</p>	<p>"AGREED"</p> <p>Chairman of the examination committee No. 3</p> <p>« 02 » 04 2025 p.</p>  <p>Vadym ZHEBEL</p>
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EXAM MATERIALS

**STATION No. 3 «EMERGENCIES IN THE INTERNAL MEDICINE
CLINIC» OSP(C)E**

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

APPENDICES TO EXAM MATERIALS

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

Appendix 1

WORK INSTRUCTIONS FOR STATION № 3 "EMERGENCIES IN THE INTERNAL MEDICINE CLINIC"

A higher education (HE) candidate must greet and present the examiner with the identification number that was assigned during registration at the OSP(C)E. The candidate's response is videotaped at the station. The HE candidate receives a clinical task that involves communicating with the patient, asking about complaints and anamnestic data, and conducting a certain objective examination.

THE FOLLOWING COMPETENCES ARE ASSESSED: communication, complaints, anamnesis, diagnostics, tactics and treatment, prevention.

WHEN WORKING WITH A STANDARDIZED PATIENT: A RECEPTION IS BEING HELD IN THE HOSPITAL ADMISSION DEPARTMENT.

1. The HE candidate should say «Hello» and introduce himself/herself - "I am your doctor," without giving him/her name
2. Ask the patient which name he can be called..
3. After receiving information about the patient's name, inform that he/she must interview the patient and examine him/her..
4. Ask for permission to interview.
5. Ask the patient's age
6. Ask complaints (the patient reports one leading complaint that requires detailing according to the provided algorithm).
7. Provide details of the complaint

When working with a clinical task - complete the task: to interpret the data of the laboratory and instrumental examination of the patient; to make a preliminary diagnosis; to determine the tactics of patient management; prescribe treatment for the patient's emergency, naming the groups of drugs and its representative; to provide preventive recommendations (including treatment of the underlying disease).

After completing the task or expiration of the time spent at the station, to return the task to the teacher, wait for the signal that the time at the station is over, and leave the station. The examiner does not accept answers after the time at the station has expired. The examiner is an observer of your actions and does not give instructions, comment or questions.

After passing the this station, the student must move to next station according to the route sheet.

The duration of passing the station is 8 minutes.

IT IS PROHIBITED to communicate with the examiner, use educational and additional materials, use gadgets, to transmit, copy, and distribute any information related to the exam that is not publicly available. If a HE candidate violates the above norms, his/her exam will be terminated, and the exam grade will be given as "failed" (violation of the rules of academic integrity).

Appendix 2

LIST OF EMERGENCIES AT THE STATION

No.	Diagnosis	Chief complaint	ECG assessment
1	Hyperkalemia	General weakness	+
2	Pulmonary embolism	Shortness of breath	
3	Bronchial asthma, severe exacerbation	Shortness of breath	
4	Acute coronary syndrome with ST segment elevation	Retrosternal pain	+
5	Acute coronary syndrome without ST segment elevation	Retrosternal pain	+
6	Acute left ventricular failure, pulmonary edema	Shortness of breath	
7	Complicated hypertensive crisis, stroke	Increased blood pressure	
8	Paroxysmal supraventricular tachycardia	Heart palpitations	+
9	Paroxysmal ventricular tachycardia	Heart palpitations	+
10	Morgagni-Adams-Stokes syndrome	Episodes of loss of consciousness	+
11	Cardiogenic shock	Retrosternal pain	+
12	Meningococcal meningitis	Fever	
13	Acute adrenal insufficiency	General weakness	
14	Hypoglycemia	Hunger attacks	
15	Urticaria, angioedema	Rash	

Appendix 3

ALGORITHMS FOR PERFORMING OF PRACTICAL SKILLS AT STATION No. 3 "EMERGENCIES IN THE INTERNAL MEDICINE CLINIC"

PATIENT INTERVIEW ALGORITHMS

With general weakness:

1. What is it accompanied by?
2. Is general weakness constant or periodic?
3. How long does this condition last?
4. What leads to relief of the condition?
5. What diseases have you had before?

With shortness of breath:

1. Did it come on suddenly or gradually

2. What provokes the appearance of shortness of breath?
3. What is accompanied by?
4. What leads to a decrease in shortness of breath?
5. Does it occur evenly throughout the day?
6. Are there attacks of shortness of breath?
7. What diseases have you had before?

For retrosternal pain (behind the sternum):

1. What is the nature of the pain: pressing, burning, stabbing?
2. How long does it last?
3. Where does the pain radiate to?
4. What is the cause of the pain (physical or emotional stress)
5. What relieves the pain (rest, nitroglycerin)?
6. How has the pain changed recently?
7. What diseases have you had before?

With palpitations:

1. Did the palpitations come on suddenly or gradually?
2. How long does it last?
3. What symptoms accompany the palpitations?
4. What is the cause of the palpitations?
5. Have you had similar attacks before?
6. What illnesses did the patient have before?

In case of high blood pressure with suspected stroke:

1. How much time has passed since the onset of this condition?
2. What is accompanied by this condition?
3. What were the blood pressure data before?
4. What medications do you take regularly?
5. Have you had similar symptoms before?
6. What illnesses did the patient have before?

In case of loss of consciousness:

1. How long does loss of consciousness last?
2. What symptoms precede loss of consciousness?
3. Were there convulsions, involuntary urination, tongue biting during loss of consciousness?
4. How quickly is memory and orientation restored after loss of consciousness?
5. What symptoms occur after loss of consciousness?
6. What medications does the patient take on an ongoing basis?
7. What illnesses did the patient have before?

During hunger attacks:

1. What is it accompanied by?
2. How often do they occur during the day?
3. What is it provoked by?
4. What leads to relief of the condition?
5. Was the glucose level determined during the attacks?
6. What illnesses did the patient have before?

In case of rash:

1. Did it appear suddenly or gradually?
2. What is it accompanied by?
3. What provoked the appearance of the rash?
4. Does the patient have intolerance to foods, medications?
5. What illnesses did the patient have before?

In case of elevated temperature:

1. To what numbers does the temperature rise?
2. What is it accompanied by?
3. How long does this condition last?
4. What reduces the temperature and to what level?
5. Have you been in contact with patients who had similar manifestations?
6. What vaccinations does he have?
7. What illnesses did the patient have before?

ECG INTERPRETATION

- Indicate whether the rhythm is sinus
- Indicate whether the rhythm is correct
- Calculate the heart rate
- Comment on the presence of a rhythm disturbance (sinus tachycardia/bradycardia; atrial fibrillation with a variant definition, supraventricular/ventricular extrasystole according to classifications, paroxysmal supraventricular/ventricular tachycardia, stable/unstable, monomorphic/polymorphic for ventricular paroxysmal tachycardias).
- Comment on the presence of conduction disturbances (bundle branch blocks, AV blocks with an indication of the degree, sinoatrial block)
- Comment on the presence of a repolarization disturbance (ST segment elevation/depression, indicating, for example, ischemic changes, and indicate the localization, additionally indicate the presence of reciprocal changes if they are present)

Appendix 4

SAMPLE TASKS

Station No. 3 "Emergencies in the Internal Medicine Clinic"
Clinical Situation No. 1

Scenario No. 1 for a patient with coronary artery disease. Non-ST elevation acute coronary syndrome.

Questions asked by HE candidate	Tutor's answers
What is your name?	Andriy
How old are you?	62 years old
What are you complaining about?	for pain behind the sternum
What is the nature of the pain: pressing, burning, stabbing?	burning
How long does it last?	lasts up to 10 minutes
Where does the pain radiate to?	gives to the left arm, shoulder blade
What is the cause of the pain (physical or emotional stress)	yes, while walking around the room. This attack of pain was provoked by significant stress 5 days ago

What relieves the pain (rest, nitroglycerin)?	The pain goes away after taking 2-3 nitroglycerin tablets, although 1 tablet helped before, the pain can disappear at rest
How has the pain changed recently?	occurs 3-5 times a day, although it previously occurred much less often
What were your previous illnesses?	I had no previous illnesses.

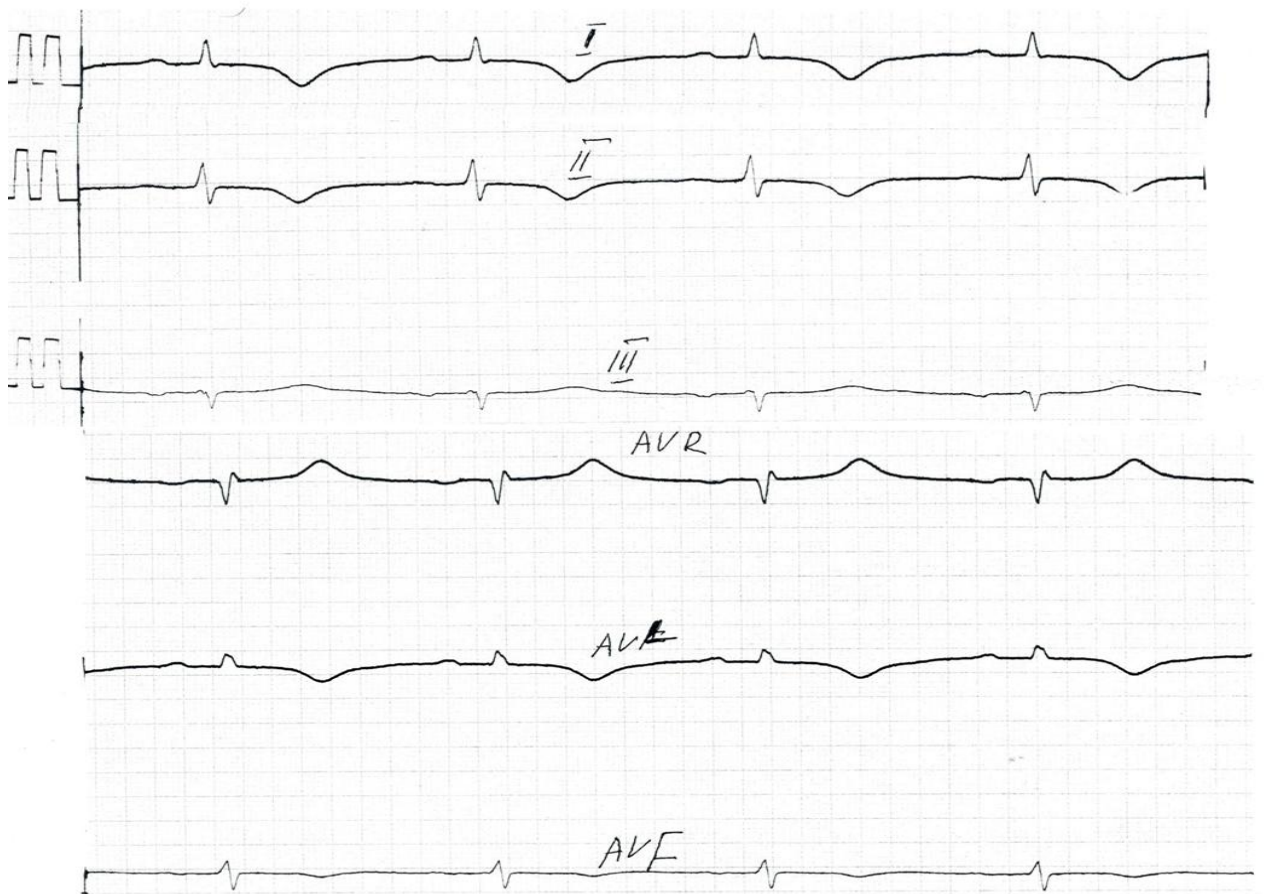
Clinical task for the HE candidate

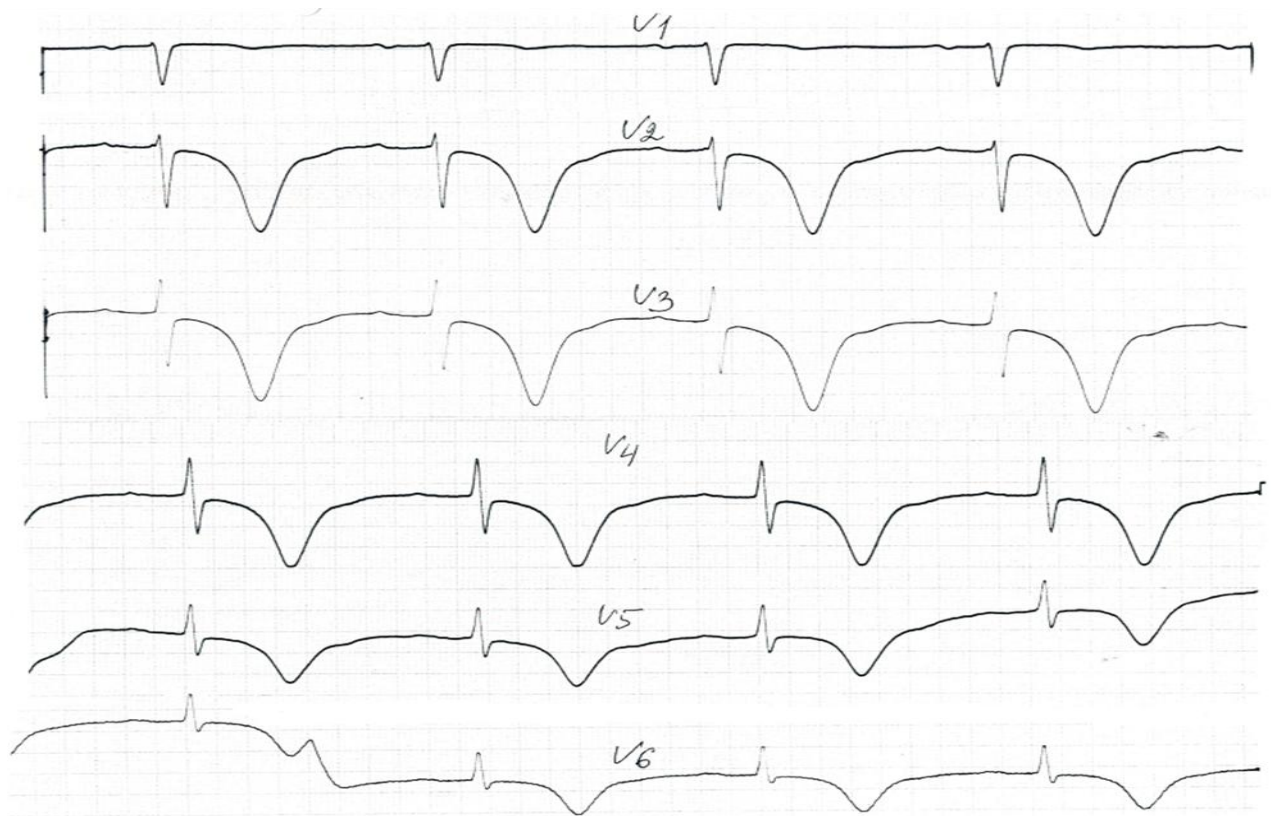
Objectively: pulse 80 beats/min, rhythmic. Blood pressure – 130/80 mm Hg. Heart auscultation – normal loudness of sounds, aortic accentuation of the second sound. Lungs auscultation, palpation of the abdomen without pathological changes.

Blood test

Data	Result	Reference values
Troponin I, ng/L	1,2	< 0,5

ECG was performed (recording speed 50 mm/sec):





Tasks:

1. Ask the patient about his complaints and anamnesis.
2. Interpret the given troponin values.
3. Provide ECG interpretation
4. Establish a preliminary diagnosis.
4. Determine the tactics of patient's management, prescribe treatment, naming the groups of drugs and their representatives.
5. Provide preventive recommendations.

OSP(C)E STATION EVALUATION CHECKLIST

Practical skills	Number of points per skill	Number of points for the HE candidate
Communication	0,9	
Greeted	0,15	
Introduced himself	0,15	
Informed that he would interview and examine the patient	0,3	
Asked the patient's name, age	0,3	
Patient's complaints and history	1,5	

Asked what the patient was complaining about	0,15	
Is the pain burning, pressing?	0,3	
How long does it last?	0,15	
Where does the pain radiate to?	0,15	
Is it associated with physical or emotional stress?	0,3	
Does it go away at rest? Or with nitroglycerin?	0,15	
How has the pain changed recently?	0,3	
Diagnostics	1,5	
Troponin is elevated	0,15	
A study should be conducted in dynamics after 6-12 hours (for a highly sensitive test - after 3 hours) to exclude or confirm myocardial infarction	0,3	
Sinus rhythm, regular, heart rate is 64 per 1 min.	0,15	
Violation of left ventricular repolarization in the form of ST segment depression and	0,15	
T wave inversion in leads I, II, aVL, V2-V6	0,15	
Indicating ischemic changes in the anterior - septal and lateral walls of the left ventricle	0,15	
CHD. Acute coronary syndrome	0,3	
without ST segment elevation	0,15	
Patient's management tactics	1,5	
The patient requires scheduled coronary angiography	0,15	
Dual antiplatelet therapy: aspirin and clopidogrel (or ticagrelor)	0,15	
in a loading dose on the first day with a transition to a maintenance dose in the future.	0,15	
High-dose statins:	0,15	
Atorvastatin or rosuvastatin	0,15	
Beta-blockers: nebivolol,	0,15	
IV nitrates: isosorbide dinitrate for the period of hospitalization	0,15	
ACE inhibitors: ramipril	0,15	
Parenteral anticoagulants: for the period of hospitalization	0,15	
enoxaparin	0,15	
Prevention	0,6	
Long-term use of the specified drugs	0,15	

Regular physical activity	0,15	
Normalization of body weight	0,15	
Correction of risk factors (control of blood pressure, diabetes, smoking cessation)	0,15	
Maximum number of points per station	6,0	###
Amount of points scored by the HE candidate	###	

Appendix 5

REGULATORY DOCUMENTS (only for the last 5 years) on the basis of which clinical cases were created:

1. Серцево-судинні захворювання. Класифікація, стандарти діагностики та лікування / [за ред.: В. М. Коваленка (голов. ред.) та ін.]. – 2024.
2. Наказ МОЗ України 15 вересня 2021 року № 1957. Уніфікований клінічний протокол екстреної, первинної, вторинної (спеціалізованої), третинної (високоспеціалізованої) медичної допомоги та кардіореабілітації "Гострий коронарний синдром без елевації сегмента ST"
3. Уніфікований клінічний протокол екстреної, первинної, вторинної (спеціалізованої), третинної (високоспеціалізованої) медичної допомоги та кардіореабілітації «гострий коронарний синдром з елевацією сегмента ST». Наказ МОЗ України від 14 вересня 2021 року № 1936.
4. 2025 ACC/AHA/ACEP/NAEMSP/SCAI Guideline for the Management of Patients With Acute Coronary Syndromes: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines <https://www.ahajournals.org/doi/10.1161/CIR.0000000000001309>
5. СТАНДАРТ МЕДИЧНОЇ ДОПОМОГИ ІШЕМІЧНИЙ ІНСУЛЬТ, 2024 https://moz.gov.ua/uploads/ckeditor/%D0%93%D1%80%D0%BE%D0%BC%D0%B0%D0%B4%D1%81%D1%8C%D0%BA%D0%B5%20%D0%BE%D0%B1%D0%B3%D0%BE%D0%B2%D0%BE%D1%80%D0%B5%D0%BD%D0%BD%D1%8F/2024/10.05.2024/2024_04_23_%D0%A1%D0%9C%D0%94%20%D0%86%D0%86.pdf
6. Наказ МОЗ України від 09 березня 2022 року № 441 «Про затвердження порядків надання домедичної допомоги особам при невідкладних станах».
7. Медицина невідкладних станів. Екстрена (швидка) медична допомога: підручник / І.С. Зозуля, А.О. Волосовець, О.Г. Шекера та ін. — 5-е видання. ВСВ «Медицина». - 2023. – 560 с.
8. Уніфікований клінічний протокол первинної та спеціалізованої медичної допомоги «Гіпертонічна хвороба (артеріальна гіпертензія)», 2024
9. Артеріальна гіпертензія. Клінічна настанова, заснована на доказах. 2024
10. Рекомендації ESC (2021) із профілактики серцево-судинних захворювань
11. Рекомендації АНА/ACC (2021): біль за грудиною
12. Інфекційні хвороби: Підручник для мед. ун-тів, інст., акад. – 4-те вид., перероб. та допов. Затверджено МОН і МОЗ / За ред. О.А.Голубовської. – К., 2022. – 464 с. стор. 221-228.
13. https://www.uptodate.com/contents/treatment-and-prevention-of-meningococcal-infection?search=meningococ&source=search_result&selectedTitle=1%7E150&usage_type=default&display_rank=1
14. <https://guidelines.moz.gov.ua/documents/3556>

15. Бронхіальна астма. Клінічна настанова, заснована на доказах (2021).
16. Рекомендації ESC та ERS щодо діагностики та лікування гострої тромбоемболії легеневої артерії (2019) <https://health-ua.com/cardiology/tromboz/61696-rekomendatc-shodo-dagnostiki-talkuvannya-gostrotromboembol-legenevo-arter>
17. Клінічні практичні рекомендації KDIGO 2024 щодо оцінки й лікування хронічної хвороби нирок / Нирки. - Том 13, №2, 2024 <http://www.mif-ua.com/archive/article/53684>
18. Міжнародні клінічні настанови EAACI / GA2LEN / EuroGuiDerm / APAAACI щодо визначення, класифікації, діагностики та лікування пацієнтів із кропив'яркою (2021) <https://health-ua.com/allergiya-i-immunologiya/kropivianka/70296-mzhnarodn-klchn-nastanovi-EAACI--GA2LEN-EuroGuiDerm--APAAACI-shodo-viznach>
19. Скибчик В. А. Клінічна електрокардіографія для професіоналів : [посібник]/ В. А. Скибчик, Я. В. Скибчик. – 2024.
20. Скрипник І. М. Невідкладні стани в клініці внутрішньої медицини : навч. посіб. / І. М. Скрипник, Н. П. Приходько, О. А. Шапошник. – Київ : Медицина, 2024. – 335 с.
21. Шаєнко З. О. Невідкладні стани в ендокринології = Emergency conditions in endocrinology : навч. посіб. / З. О. Шаєнко, О. М. Беляєва, Ю. В. Лисанець ; МОЗ України, Полтавський державний медичний університет. – Полтава : РВВ ПДМУ, 2024. – 156 с. <https://repository.pdmu.edu.ua/handle/123456789/25091>