

Ministry of Health of Ukraine
National Pirogov Memorial Medical University, Vinnytsya
Department of Clinical pharmacy and clinical pharmacology

«AGREED»

with the Methodical Council
of the Pharmaceutical Faculty

Minutes № 2

Dated «23» December 2024

Head of the Methodical Council
of the Pharmaceutical Faculty



assoc. prof. of HEI Tetyana YUSHCHENKO

«APPROVED»

by the Academic Council of Stomatological
and Pharmaceutical Faculty

Minutes № 2

Dated «24» December 2024

Head of the Academic Council of
Stomatological and Pharmaceutical Faculty



professor of HEI Serhiy POLISHCHUK

Instruction
for Objective Structured Practical Examination Station

Station name	<i>STATION № 7. Pharmaceutical care of patients at dispensing over-the-counter and prescription drugs</i>
Subject	Clinical Pharmacy
Speciality	226 «Pharmacy, industrial pharmacy»
Educational qualification	Master of pharmacy
Professional qualification	Pharmacist
Course	V
Form of study	Full-time

Vinnytsya 2024

Tasks:

- To make a consultation on prescription and OTC drugs and other pharmaceutical products range;
- To make pharmaceutical care when selecting and sale OTC drug by assessing the risk / benefit ratio, interoperability, indications and contraindications guided by data on the health of individual patients taking into account the biopharmaceutical, pharmacokinetic, pharmacodynamic and physicochemical characteristics of drugs and other pharmaceutical products range;
- To ensure the rational use of prescription and over-the-counter drugs and other products of the pharmacy range in accordance with physicochemical, pharmacological characteristics, biochemical, pathophysiological features of a particular disease and pharmacotherapeutic schemes of its treatment;
- Demonstrate the communication skills of communication.

Station equipment:

1. Scenario of a practical situation
2. Timer years
3. Computer
4. A4 paper
5. Pen

In the case of distance study form the procedure for conducting an objective structured practical (clinical) examination (OSPE) is governed by the Regulations on the introduction of elements of distance learning in Vinnytsya National Pirogov Memorial Medical University and will take place on the platform Microsoft Teams.

Equipment for distance form OSPE: situational tasks.

At the day of the exam, the secretary of the State Examination Commission joins a student to the meeting of the examiner, a group that passes the exam according to the schedule. At the station, the student must greet and introduce himself, present a document (passport) proving his identity to the teacher. The student receives a practical situational task, which involves determining the algorithm of interviewing a pharmacy visitor according to a particular symptom, identify threatening symptoms that require immediate doctor's examination, choose the right drug, calling its group affiliation, possible side effects, frequency and duration of use, features of interaction with other drugs.

The duration of the station is 8 minutes. Note that the teacher is an observer of your actions and does not provide instructions, comment or question. After the end of the stay at the station, the examiner does not accept the answer. After the signal about the end of the stay, the student must move to the next station.

Requirements for passing the station:

- usage a computer or laptop during the answer;
- the answer is accepted if the camera and microphone are turned on, where the student who passes the exam is clearly visible and audible;

- video is recorded while working at the station.

It is forbidden to use a mobile phone and other electronic gadgets, without answering during the exam, to transmit, copy, make a screenshot and distribute any information related to the exam and not publicly available.

Part of OSPE of Clinical Pharmacy consists of two stations.

Station № 7 «Pharmaceutical care of patients at dispensing over-the-counter and prescription drugs»

Practical situations of pharmaceutical care of patients in the symptomatic treatment of various diseases **are presented.**

An example of evaluating the response of a higher education seeker to a practical (situational) task.

Practical situation. Choose and dispense a drug to relieve cold to a 56-year-old man with hypertension. To do this, perform the following tasks.

Task:

- 1) Identify the possible threatening symptoms that occur in the patient when choosing a drug to eliminate the common cold, which require immediate medical attention. What clarifying questions should the pharmacist ask the pharmacy visitor in this situation.
- 2) Justify the choice of drug for this symptom, its group affiliation, possible side effects, frequency and duration of use, features of interaction with other drugs

Evaluation criteria	Evaluation of completed tasks, points		
	Completely	Partially	Absent
Task 1. Identify the possible threatening symptoms that occur in the patient when choosing a drug to eliminate the common cold, which require immediate medical attention. What clarifying questions should the pharmacist ask the pharmacy visitor in this situation.			
<p>Threatening symptoms that require immediate medical attention: rhinitis is accompanied by a rise in body temperature above 38.5 ° C; bad breath; bloody or purulent discharge from the nose; rhinitis is accompanied by "congestion" in the ears, hearing loss; the presence of discharge from one nasal passage (especially in children); prolonged pain in the frontal area or in the area of the nose; The combination of rhinitis with cough that lasts for more than a week is accompanied by asthma attacks, increasing weakness, purulent or bloody sputum.</p> <p>Questions to the pharmacy visitor</p> <p>Have nasal discharge appeared recently (up to 3 days), watery, without features.</p> <p>Does the patient have one or more threatening symptoms.</p> <p>Does the patient have one or more symptoms of acute respiratory disease: fever, cough, sore throat, muscle aches; headache.</p> <p>Are there one or more allergy symptoms: sneezing; itching and redness of the eyes; skin rashes; itchy skin.</p>	2,5 – «5»	2,3 – 2,0 – «4» 1,97 – 1,5 – «3»	0

Have / have recently taken local vasoconstrictor drugs?			
Task 2. Justify the choice of drug for this symptom, its group affiliation, possible side effects, frequency and duration of use, features of interaction with other drugs			
Oxymetazoline is a topical sympathomimetic, a long-acting nasal decongestant, used twice a day. Vasoconstrictive drugs of the sympathomimetic group are not recommended for use for more than 5-7 days Sympathomimetics can cause an increase in blood pressure, so they are used with caution in hypertension and hyperthyroidism. Oxymetazoline has the least negative effect on blood pressure. Sympathomimetics can cause an increase in intraocular pressure, so they are used with caution in glaucoma Sympathomimetics are contraindicated in persons with cerebral circulatory disorders, heart rhythm, with severe atherosclerosis Concomitant use with other vasoconstrictors, with β -blockers (possible attenuation of antihypertensive effect, development of cardiac arrhythmias), sedatives (possible attenuation of action), antidepressants, MAO inhibitors (possible increase in action and side effects), with others through the nasal cavity	2,5 – «5»	2,3 – 2,0 – «4» 1,97 – 1,5 – «3»	0
Total number of points	5 – «5»	4,6 – 4,0 – «4» 3,94 – 3,0 – «3»	0

The maximum number of points per station is 5

List of situations: pharmaceutical care of patients with the following symptoms: cough; headache; fever; rhinitis; conjunctivitis, sore throat; heartburn; constipation; diarrhea; flatulence; dysbiosis; acne, joint pain, insomnia, anxiety, varicose veins; fungal and viral damage to the skin, when choosing a contraceptive, drugs for the prevention of diseases caused by iodine deficiency.

List of practical situations

Practical situation 1

Perform pharmaceutical care for oral contraceptive use in a 35-year-old female smoker. To do this, complete the following tasks.

Tasks:

- 1) Identify the possible threatening symptoms that can occur in the patient, that require immediate medical attention when dispensing contraceptives. What clarifying questions should the pharmacist ask a visitor in this situation.
- 2) Justify the choice of drug for this symptom, its group affiliation, possible adverse reactions, frequency and duration of use, features of interaction with other drugs.

Practical situation 2

Perform pharmaceutical care regarding the dispensing of an over-the-counter drug for the symptomatic treatment of headache for a 35-year-old woman suffering from migraine. To do this, complete the following tasks.

Tasks:

- 1) Identify the possible threatening symptoms that can occur in the patient, that require immediate medical attention when dispensing pain killers at headache. What clarifying questions should the pharmacist ask a visitor in this situation.
- 2) Justify the choice of drug for this symptom, its group affiliation, possible adverse reactions, frequency and duration of use, features of interaction with other drugs.

Practical situation 3

Choose and dispense a medicine for the prevention of diseases caused by iodine deficiency to a 12-year-old child. To do this, complete the following tasks.

Task:

- 1) Identify the possible threatening symptoms that occur in the patient when choosing a drug for the prevention of diseases caused by iodine deficiency, which require immediate medical attention. What clarifying questions should the pharmacist ask the pharmacy visitor in this situation.
- 2) Justify the choice of drug for this symptom, its group affiliation, possible adverse reactions, frequency and duration of use, features of interaction with other drugs.

Practical situation 4

Perform pharmaceutical care regarding the dispensing of an over-the-counter drug for the symptomatic treatment of fever in a 30-year-old pregnant woman. To do this, complete the following tasks.

Tasks:

- 1) Identify the possible threatening symptoms that can occur in the patient, that require immediate medical attention when dispensing antipyretics. What clarifying questions should the pharmacist ask a visitor in this situation.
- 2) Justify the choice of drug for this symptom, its group affiliation, possible adverse reactions, frequency and duration of use, features of interaction with other drugs.

Practical situation 5

Perform pharmaceutical care for dispensing an over-the-counter medicine for the symptomatic treatment of constipation to a 75-year-old man on long-term nifedipine. To do this, complete the following tasks.

Tasks:

- 1) Identify the possible threatening symptoms that can occur in the patient, that require immediate medical attention when dispensing laxatives. What clarifying questions should the pharmacist ask a visitor in this situation.
- 2) Justify the choice of drug for this symptom, its group affiliation, possible adverse reactions, frequency and duration of use, features of interaction with other drugs.

Practical situation 6

Perform pharmaceutical care regarding the release of an over-the-counter drug for the symptomatic treatment of fever in a 4-year-old child with paracetamol allergy in anamnesis. To do this, complete the following tasks.

Tasks:

- 1) Identify the possible threatening symptoms that can occur in the patient with fever, that require immediate medical attention. What clarifying questions should the pharmacist ask a visitor in this situation.
- 2) Justify the choice of drug for this symptom, its group affiliation, possible adverse reactions, frequency and duration of use, features of interaction with other drugs.

Practical situation 7

Choose and dispense a medicine to relieve diarrhea to a 30-year-old man who is on a business trip. To do this, perform the following tasks.

Tasks:

- 1) Identify the possible threatening symptoms that can occur in the patient with diarrhea, that require immediate medical attention. What clarifying questions should the pharmacist ask a visitor in this situation.
- 2) Justify the choice of drug for this symptom, its group affiliation, possible adverse reactions, frequency and duration of use, features of interaction with other drugs.

Practical situation 8

Choose and dispense a drug to relieve a runny nose in a 29-year-old woman with seasonal allergic rhinitis. To do this, complete the following tasks.

Tasks:

- 1) Identify the possible threatening symptoms that can occur in the patient with rhinitis, that require immediate medical attention. What clarifying questions should the pharmacist ask a visitor in this situation.
- 2) Justify the choice of drug for this symptom, its group affiliation, possible adverse reactions, frequency and duration of use, features of interaction with other drugs.

Practical situation 9

Choose and dispense the drug to a 23-year-old woman to relieve symptoms of intestinal dysbiosis after long-term antibacterial therapy. To do this, perform the following tasks.

Tasks:

- 1) Identify the possible threatening symptoms that can occur in the patient with dysbiosis, that require immediate medical attention. What clarifying questions should the pharmacist ask a visitor in this situation.
- 2) Justify the choice of drug for this symptom, its group affiliation, possible adverse reactions, frequency and duration of use, features of interaction with other drugs.
Choose a drug that includes a representative of non-pathogenic unicellular yeast fungi.

Practical situation 10

Perform pharmaceutical care regarding the dispensing of an over-the-counter drug for the symptomatic treatment of a sore throat in a 35-year-old man. To do this, complete the following tasks.

Tasks:

- 1) Identify the possible threatening symptoms that can occur in the patient, that require immediate medical attention when dispensing oral antiseptics. What clarifying questions should the pharmacist ask a visitor in this situation.
- 2) Justify the choice of drug for this symptom, its group affiliation, possible adverse reactions, frequency and duration of use, features of interaction with other drugs.

Practical situation 11

Perform pharmaceutical care regarding the dispensing of an over-the-counter drug for the symptomatic treatment of a dry cough to a 3-year-old child with symptoms of an acute respiratory viral infection. To do this, complete the following tasks.

Tasks:

- 1) Identify the possible threatening symptoms that can occur in the patient, that require immediate medical attention when dispensing antitussive medicine. What clarifying questions should the pharmacist ask a visitor in this situation.
- 2) Justify the choice of drug for this symptom, its group affiliation, possible adverse reactions, frequency and duration of use, features of interaction with other drugs.

Practical situation 12

Perform pharmaceutical care regarding the dispensing of an over-the-counter drug for the symptomatic treatment of acne on the face of a 16-year-old girl. Choose a means of local action. To do this, complete the following tasks.

Tasks:

- 1) Identify the possible threatening symptoms that can occur in the patient, that require immediate medical attention when dispensing anti-acne medications. What clarifying questions should the pharmacist ask a visitor in this situation.
- 2) Justify the choice of drug for this symptom, its group affiliation, possible adverse reactions, frequency and duration of use, features of interaction with other drugs.

Practical situation 13

Perform pharmaceutical care regarding the dispensing of an over-the-counter drug for the symptomatic treatment of flatulence for a 45-year-old man with type II diabetes. To do this, complete the following tasks:

Tasks:

- 1) Identify the possible threatening symptoms that can occur in the patient with flatulence, that require immediate medical attention. What clarifying questions should the pharmacist ask a visitor in this situation.
- 2) Justify the choice of drug for this symptom, its group affiliation, possible adverse reactions, frequency and duration of use, features of interaction with other drugs.

Practical situation 14

Choose and dispense an over-the-counter systemic painkiller for a 72-year-old man with severe left knee pain that increases at walking. The patient has been suffering from osteoarthritis for a long time.

Tasks:

- 1) Identify the possible threatening symptoms that can occur in the patient, that require immediate medical attention when dispensing pain killers for joint pain. What clarifying questions should the pharmacist ask a visitor in this situation.
- 2) Justify the choice of drug for this symptom, its group affiliation, possible benefits depending on the medical form (cream, ointment, gel), side effects, frequency and duration of use, features of interaction with other drugs.

Practical situation 15

Choose and dispense a drug to reduce a cough with a small amount of sputum in a 75-year-old man.

Tasks:

- 1) Identify the possible threatening symptoms that can occur in the patient, that require immediate medical attention when dispensing antitussives. What clarifying questions should the pharmacist ask a visitor in this situation.
- 2) Justify the choice of drug for this symptom, its group affiliation, possible adverse reactions, frequency and duration of use, features of interaction with other drugs.

Recommended literature

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2. Brunton L.L., Chabner B.A., Knollmann B.C. Goodman and Gilman's The Pharmacological Basis of Therapeutics (13-th Edition).-2017. 1423p.
3. Essentials of medical pharmacology / edited by Tripathi KD. - 6th edition. – New Delhi, 2010. – 940 p.
4. Handbook of Drug Interactions: a clinical and forensic guide. - Edited by A. Mozayani, H. County, L.P. Raymon -2004.-662 p.
5. H. Lüllmann, A. Ziegler et al. Color Atlas of Pharmacology.-2000.-662 p.
6. Katzung B.G., Masters S.B., Trevor A.J. Basic & Clinical Pharmacology (14-th Edition).-2018.- 1547 p.
7. Pharmacology - Cito!: Textbook II Edited by S.M. Drogovoz. - Kharkiv, 2016. - 192 p.
8. Pharmacology at your palms: reference book / Drogovoz S.M., Kutsenko T.A. - Kharkiv: Nphall, 2016.-80 p.
9. Pharmacology / [edited by] Karen Whalen ; collaborating editors, Richard Finkel, Thomas A. Panavelil. – Sixth edition. – 2015. (Lippincott illustrated reviews)
10. Rational use of medicines: progress in implementing the WHO medicines strategy Report by the Secretariat, EB118/6, 11 May 2006, [Електронний ресурс].–Режим доступу: who.int/gb/ebwha/pdf_files/EB118/B118_6-en.pdf/
11. Websites PubMed, MEDLINE, MD Consult, UptoDate, Clinical Evidence etc.
12. The European Association for Clinical Pharmacology and Therapeutics (EACPT) <http://www.eacpt.org>
13. Drug interactions resource: <http://medicine.iupui.edu/flockart/>