

National Medical University of Odessa
Department of Phthisiopulmonology
Syllabus
Adverse reactions of antituberculosis drugs

Amount	Total: ECTS credits – 4; hours – 120 hours, of which lectures – 12 hours, practical – 48 hours, independent work of applicants (IWA) – 60 hours.
Semester, year of study	IV semester, 2 year
Days, time, place	According to the schedule
Teacher(s)	Matsehora Nina Anatolyivna head of the department, doctor of medicine, professor
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Workplace	Department of Phthisiopulmonology (40 Frantsusky Boulevard), study room
Consultations	Face-to-face consultations: Wednesday 14.00-15.00 Online consultations: Tuesday, Thursday 14:00-15:00

COMMUNICATION

Communication with future doctors of philosophy will be carried out by e-mail, Microsoft Teams and Skype programs, by phone, in the classroom according to the schedule.

COURSE ABSTRACT

The subject of study of the discipline "Adverse reactions of anti-tuberculosis drugs" is measures for diagnosis, treatment and prevention of adverse reactions of anti-tuberculosis drugs.

Prerequisites

The basis for mastering the discipline is the knowledge, skills and abilities acquired during the study of such disciplines as anatomy, physiology, histology, microbiology, virology and immunology, pathophysiology, pathomorphology, radiology, pharmacology, propaedeutics of internal medicine, propaedeutics of pediatrics, radiology, hygiene and ecology , phthisiology.

Post-requisites

“Adverse reactions of antituberculosis drugs” as an educational discipline in the specialty "Phthisiology" involves the study of relationships with the following disciplines: internal medicine (pulmonology, endocrinology), surgery, otolaryngology, neurology, infectious diseases, epidemiology, pediatrics, children's infections, oncology and the formation of skills apply knowledge of phthisiology in the process of further education and in professional activities and promotes the promotion and observance of a healthy lifestyle, prevention of respiratory diseases in the course of life.

The purpose of the course: to teach future doctors of philosophy to predict possible side effects of anti-tuberculosis drugs, the ability to diagnose these side effects, to provide emergency care when they occur, to prescribe optimal and adequate schemes of anti-tuberculosis therapy for various forms of tuberculosis.

Tasks of the discipline:

1) acquisition of knowledge about the state and prospects of phthisiopulmonology at the current stage;

2) acquisition of knowledge of clinical pharmacology from the main groups of drugs used in the treatment of drug-sensitive and drug-resistant forms of tuberculosis and tuberculosis/HIV co-infection;

3) acquisition of skills and abilities for diagnosing and predicting possible side effects of anti-tuberculosis drugs and conditions for their prevention;

4) acquisition of skills and abilities to provide emergency aid in order to overcome the side effects of anti-tuberculosis drugs;

5) determine the participation of the family doctor in the treatment of tuberculosis patients and control of the regimen of taking anti-tuberculosis chemopreparations;

6) formation of moral, ethical and deontological qualities during professional communication with the patient.

Expected results

As a result of the study of the discipline "Adverse reactions of anti-tuberculosis drugs", the candidate for the degree of Doctor of Philosophy must

know:

- international standards for tuberculosis control;
- antimycobacterial drugs: clinical pharmacology, classification, doses, methods and frequency of introduction into the patient's body;
- standard treatment regimens for tuberculosis patients. The concept of chemoresistance;
- adverse reactions to antimycobacterial drugs and their classification;
- causes of development and risk factors in the treatment of tuberculosis;
- peculiarities of pharmacotherapy of tuberculosis in pregnant women, in patients with kidney pathology, liver, in HIV-infected persons;
- clinical-laboratory and instrumental monitoring of the quality of treatment;
- preventive measures regarding the development of adverse reactions in the hospital and outpatient stages of tuberculosis treatment;
- criteria for treatment of tuberculosis patients;

be able:

- master the ability to diagnose various clinical forms of tuberculosis;
- diagnose and carry out differential diagnosis of tuberculosis;
- interpret risk factors and predict the occurrence of treatment complications in the form of adverse reactions from anti-tuberculosis drugs;
- to learn the algorithm of actions of doctors in the organization of assistance to patients in cases of adverse reactions at TB treatment;
- learn the main preventive measures in the occurrence of adverse reactions;

- demonstrate the formation of moral and ethical and deontological qualities at professional communication with a tuberculosis patient.

COURSE DESCRIPTION

The course will be taught in the form of lectures (12 hours), practical (48 hours), organization of independent work of applicants (60 hours).

Forms and methods of education

1) Lectures (topics of the lecture course reveal problematic issues of the relevant sections of the discipline. Lecturers may use such options for conducting lectures as educational, informative, lecture-visualization, lecture-discussion, lecture-consultation).

2) Practical classes (when conducting a practical class, an oral and written survey, solving test tasks, solving situational problems is expected. The teacher uses interactive teaching methods).

3) Independent work (SRS) with active consultation of the teacher (during independent work, applicants master the educational material of the next practical session. At the consultations, the applicant can get answers to difficult questions of the topic).

Content of the academic discipline

Topic 1. Organization of medical care for tuberculosis patients: detection, diagnosis, treatment, prevention, dispensary supervision. International standards for tuberculosis control. Modern approaches to the detection and diagnosis of tuberculosis. Standardization of clinical care.

Topic 2. General principles of tuberculosis treatment. Antimycobacterial drugs. Standard treatment regimens for patients with tuberculosis. General principles of antimycobacterial therapy: complexity, combination, controllability, duration and continuity, stage sequence, individual approach. Antituberculosis drugs (ATD): classification, doses, methods and frequency of introduction into the patient's body.

Topic 3. Standard regimens of chemotherapy. The concept of chemoresistance. Criteria for treatment of tuberculosis patients. Categories of treatment of patients with tuberculosis. Observation of the condition of tuberculosis patients during treatment.

Topic 4. Adverse reactions (AR) to antimycobacterial drugs. Classification of adverse reactions to antituberculosis drugs. Reasons for the development of adverse reactions to antituberculosis drugs. Risk factors for the development of PR in the treatment of tuberculosis.

Topic 5. Allergic and non-allergic adverse reactions to road accidents.

Mechanisms of AR development on road accidents. Skin manifestations, methods of detecting the sensitizing effect of AR on road accidents. Methods of treatment and prevention of AR.

Topic 6. Toxic and toxic-allergic side reactions to anti-tuberculosis drugs. Toxic and toxic-allergic side reactions to individual accidents. Treatment. Drugs with uncertain effectiveness. Combined accidents.

Topic 7. Peculiarities of pharmacotherapy of tuberculosis. Peculiarities of pharmacotherapy of tuberculosis in pregnant women, in patients with kidney and liver pathology, in human immunodeficiency virus (HIV)-infected patients.

Topic 8. Control, monitoring and management of adverse reactions to anti-tuberculosis drugs. Clinical-laboratory and instrumental monitoring of the quality of treatment. Preventive measures at the inpatient and outpatient stages of TB treatment.

List of recommended literature

Main:

1. Phthiology: a textbook / V. I. Petrenko, L. D. Todoriko, L. A. Hryshchuk [and others]; under the editorship V. I. Petrenko. Kyiv: Medicine, 2016. 471 p.
2. Current issues of phthiology: manual / D. G. Kryzhanoskyi, V. A. Freiwald, N. A. Marchenko (and others). Dnipropetrovsk: T. K. Serednyak, 2015. 155 p.
3. Adverse reactions of antituberculosis drugs: textbook / V.I. Petrenko, E.N. Raznatovskaya, A.V. Radish Kyiv, 2014. 103 p.
4. Management of adverse reactions during the treatment of patients with tuberculosis and co-infection (tuberculosis/HIV infection/AIDS) (methodological manual for doctors) "National Institute of Phthiology and Pulmonology named after F.G. YANOVSKY NAMN of Ukraine". - Kyiv, 2016. - p.80.

Additional:

1. Emergency conditions in the practice of a phthiopulmonologist: teaching manual / N. A. Matsegora, O. Ya. Lekan, O. A. Baburina, M. Yu. Golubenko. Odesa: "Astroprint", 2016. 64 p.
2. Unified clinical protocol of emergency, primary, secondary (specialized) and tertiary (highly specialized) medical care "Drug allergy, including anaphylaxis" [Electronic resource] / Ministry of Health of Ukraine, 2015. - Access mode: http://www.moz.gov.ua/docfiles/dn_20151230_0916dod_ukp.pdf.
3. Order of the Ministry of Health of Ukraine No. 287 dated February 1, 2019 "On the approval of the Infection Control Standard for health care institutions that provide care to tuberculosis patients."
4. Order in the specialty "Physiology" "On the approval of health care standards for tuberculosis dated February 25, 2020 No. 530 (as amended by the order of the Ministry of Health of Ukraine dated October 6, 2021 No. 2161) HEALTH CARE STANDARDS FOR TUBERCULOSIS

ASSESSMENT

Current control methods:

The following methods of current control are used at each practical session:

- 1) Tests on the subject of a practical lesson
- 2) Oral answers to standardized questions based on the material of the current topic, previous topics and lecture material
- 3) Filling out indicative cards according to the subject of the lesson.
- 4) Control of the acquirer's activity while working in small groups

Criteria for evaluating the applicant's work in a practical session

«5»	«4»	«3»	«2»
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Criteria for evaluating the applicant's theoretical knowledge			
The acquirer independently, clearly and consistently, provides complete answers to all questions, using data from additional literature.	The acquirer orients himself well in the material, but when answering he made two or three mistakes that are not fundamentally important.	The acquirer knows the actual material in the full scope of the course program, but finds it difficult to independently and systematically present the answers, forcing the teacher to offer him leading questions.	The acquirer does not demonstrate knowledge and is poorly oriented in the main theoretical material, which is revealed by offering him additional questions.
Criteria for evaluating the performance of test tasks			
90-100 %	70-80 %	50-60 %	менше 50 %

The final grade is the average grade for all activities of the student during the practical session.

At the end of the study of the discipline, the current success rate is calculated as the average score of all the grades received by the student on a traditional scale, rounded to 2 (two) decimal places.

Control methods:

- entrance and final knowledge level control tests on the topic of practical training;
- oral answer to questions based on the material of the current topic;
- solving typical and atypical clinical situational problems;
- control of practical skills;

Current control. Evaluation of the success of the final assessment.

Scheme of accrual and distribution of points received by graduate students study of subjects of the discipline is carried out according to the traditional 4-point scale. At the end of the study of the discipline, the current success rate is calculated as the average current score, that is, the arithmetic average of all the grades received by the graduate student on a traditional scale, rounded to a whole number.

Final control. The study of the academic discipline ends with a test. Graduate students (seekers) who have not missed lectures and practical classes or have completed missed classroom classes and have an average grade of at least 3.00 will receive credit.

Conditions for obtaining additional (bonus) points. Participation in the GDR of the department, preparation of reports and speeches at student conferences.

Individual work

Tasks for independent work:

1) preparation for practical classes

- theoretical training
- work with indicative maps
- performance of test tasks
- **solving situational problems**

Elaboration of a topic that is not included in the classroom lesson plan: "Non-specific therapy of tuberculosis patients (hygienic and dietary regimen, pathogenetic, symptomatic treatment). Surgical treatment. Restorative sanatorium-resort treatment".

Evaluation of independent work, which is provided for in the topic along with classroom work, is carried out during the current control of the topic in the corresponding classroom session (solving test tasks, oral answer).

Evaluation of the topic, which is not included in classroom classes, "Non-specific therapy of tuberculosis patients (hygienic and dietary regimen, pathogenetic, symptomatic treatment). Surgical treatment. Sanatorium-resort treatment" is carried out during the defense of the medical history (each student prescribes non-specific therapy for the patient).

COURSE POLICY

Deadlines and rescheduling policy: To make up missed lectures and practical classes (more than 1 day) permission from the dean's office is required. Practices are carried out daily (no more than one pass, three passes on Saturday) after classes. After the examination of the passes, the applicant completes the assessment by means of an oral survey, which is conducted by the head of the department together with an associate professor, or two associate professors.

Academic Integrity Policy: Writing off during ongoing assessment and grading is prohibited (including using mobile devices).

Attendance policy: attendance at lectures and practical classes is mandatory, no points are awarded for attending lectures, but with lectures not completed during the cycle, the student is not allowed to receive credit. A valid reason for absence from classes is illness, which is confirmed by a certificate from the dean's office.

Mobile devices: are not used in classes.