

MINISTRY OF HEALTH OF UKRAINE
KHARKIV NATIONAL MEDICAL UNIVERSITY
Department of Infectious Diseases

Academic year **2021-2022**

SYLLABUS OF THE EDUCATIONAL COMPONENT

"ACTUAL PROBLEMS OF HIV INFECTION"

The educational component is selective

The form of education is full-time

The field of knowledge **22 "Health Care"**

The speciality **222 "Medicine"**

Educational and professional program **Medicine**

The second (Master's) level of higher education

6th year

The syllabus of the discipline
considered at the meeting of the
Infectious Diseases Department

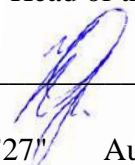
Approved by the methodical commission of
KNMU on therapeutic profile problem
(name)

Protocol from
"27" August _____ 2021 № 18

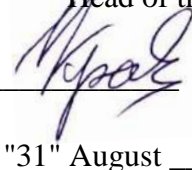
Protocol from
"31" August _____ 2021 № 1

Head of the department

Head of the commission



Yurko KV
"27" August 2021



Kravchun P.G.
"31" August _____ 2021

SILABUS DEVELOPERS:

1. Yurko Kateryna Volodymyrivna, Head of the Infectious Diseases Department, Professor, DSC.
2. Bondarenko Andriy Volodymyrovych, Professor, DSc.
3. Solomennyk Anna Olehivna, Associate Professor of Infectious Diseases, Associate Professor, Ph.D.
4. Katsapov Dmytro Volodymirovich, Associate Professor, PhD.

INFORMATION ABOUT TEACHERS WHO GIVE THE EDUCATIONAL COMPONENT

Surname, name, position, academic rank, science degree	<p>Yurko Kateryna Volodymyrivna, Head of the Department, Professor, DSc.</p> <p>Bondarenko Andriy Volodymyrovych, Professor, DSc.</p> <p>Sokhan Anton Vasyliovych, Professor, DSc.</p> <p>Gradil Hryhoriy Ivanovych, Associate Professor, PhD.</p> <p>Katsapov Dmitry Vladimirovich, Associate Professor, PhD.</p> <p>Mohylenets Olena Ivanivna, Associate Professor, PhD.</p> <p>Burma Yaroslava Ihorivna, Assistant Professor, PhD.</p> <p>Antsyferova Natalia Viktorivna, Assistant Professor, PhD.</p> <p>Bodnya Ihor Pavlovych, Assistant Professor, PhD.</p>
Professional interests	<p>See profile of a teacher at the page of the Department of Infectious Diseases on the site of KNMU:</p> <p>http://knmu.kharkov.ua/index.php?option=com_content&view=article&id=140:2011-05-14-18-46-26&catid=7:2011-05-05-09-09-08&Itemid=27&lang=en</p>
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Consultations	<p>According to the schedule of the department (Monday, Tuesday, Wednesday, Thursday, Friday, from 9.00 to 16.00), the study room of the department of infectious diseases</p> <p>on-line consultations by prior arrangement with a teacher</p>
	<p>Department of Infectious Diseases, MNPE KhRC "Regional Clinical Infectious Diseases Hospital", Heroiv Stalingrada Ave., 160; Trinklera str., 6</p>

INTRODUCTION

The program of study of the discipline "Actual problems of HIV infection" is made according to the Educational-professional program "Medicine" and the Standard of higher education of Ukraine (further - the Standard), the second (master's) level, branches of knowledge 22 "Health care", specialty 222 "Medicine".

Description of the discipline (abstract). In the general system of medical training, the discipline "Actual problems of HIV infection" occupies an important place given the high prevalence of HIV infection, HIV-associated infections and invasions, the need for future doctors to form clinical thinking, skills and practical skills that ensure their timely diagnosis. rational treatment, the choice of optimal tactics in case of emergency care. Particular attention in the teaching of the discipline is paid to the issues of early diagnosis, medical examination, treatment of patients in the prehospital stage, which helps to improve the quality of medical training, especially for the outpatient health department.

The subject of study of the discipline is HIV infection as an infectious disease characterized by an acyclic infectious process and leads to depletion of the compensatory capacity of the immune system and, as a consequence, the development of HIV-associated infections and invasions.

Interdisciplinary links: "Actual problems of HIV infection" as a discipline is integrated with such disciplines as medical and biological physics, biology, normal and pathological anatomy, microbiology, virology and immunology, physiology, pathophysiology, internal medicine, surgery, neurology dermatology, epidemiology, ophthalmology, otolaryngology, hematology, clinical pharmacology, psychiatry, dentistry, oncology, tuberculosis.

1. PURPOSE AND TASKS OF THE DISCIPLINE

1.1. The purpose of studying the discipline "Actual problems of HIV infection" is to form the ability to apply the acquired knowledge, skills, abilities and understanding of the current pathological process of HIV infection and the development of opportunistic infections by studying the spread of the disease in the world and Ukraine, identifying relationships between the clinical features and immune status of HIV patients, as well as the study of stigma and discrimination and ways to overcome them in society with the involvement of general practitioners / family physicians who provide care to HIV-infected patients.

1.2. The main tasks of studying the discipline "Actual problems of HIV infection" are:

- mastering the skills of interviewing patients with HIV, opportunistic infections and invasions;
- gaining the ability to determine the necessary list of laboratory and instrumental studies and evaluate their results in HIV infection, opportunistic infections and invasions;
- acquisition of the ability to establish a preliminary and clinical diagnosis of the disease;
- acquisition of the ability to determine the necessary mode of work and rest, the nature of nutrition in the treatment of HIV, opportunistic infections and invasions;
- acquisition of the ability to determine the principles and nature of treatment of HIV infection, opportunistic infections and invasions;
- acquisition of the ability to diagnose emergencies that may occur in patients with HIV, opportunistic infections and invasions;
- acquisition of the ability to determine tactics and skills of providing emergency medical care to patients with HIV, opportunistic infections and invasions;

- mastering the skills of performing medical manipulations for patients with HIV infection, opportunistic infections and invasions;
- gaining the ability to plan and conduct sanitary and hygienic, preventive and anti-epidemic measures in HIV infection, opportunistic infections and invasions;
- acquisition of the ability to determine the tactics of management of persons with HIV, opportunistic infections and invasions, which are subject to dispensary supervision;
- acquisition of the ability to keep medical records.

1.3. Competences and learning outcomes, the formation of which is facilitated by the discipline (relationship with the normative content of training of higher education, formulated in terms of learning outcomes in the OPP and Standard).

1.3.1. The study of the discipline provides mastery by students

competencies:

integral: the ability to solve typical and complex specialized problems and practical problems in professional activities in the field of health care, or in the learning process, which involves research and / or innovation and is characterized by complexity and uncertainty of conditions and requirements.

general:

- Ability to abstract thinking, analysis and synthesis, the ability to learn and be modernly trained

- Ability to apply knowledge in practical situations

- Knowledge and understanding of the subject area and understanding of professional activity

- Ability to adapt and act in a new situation

- Ability to make an informed decision; work in a team; interpersonal skills

- Ability to communicate in the state language both orally and in writing; ability to communicate in a foreign language

- Skills in the use of information and communication technologies

- Definiteness and perseverance in terms of tasks and responsibilities

- Ability to act socially responsibly and consciously

- The desire to preserve the environment

special (professional, subject):

- Survey skills

- Ability to determine the required list of laboratory and instrumental studies and evaluate their results

- Ability to establish a preliminary and clinical diagnosis of the disease

- Ability to determine the required mode of work and rest, the nature of nutrition in the treatment of diseases

- Ability to determine the principles and nature of treatment of diseases

- Ability to diagnose emergencies

- Ability to determine

tactics and skills of emergency medical care

- Skills to perform medical manipulations

- Ability to plan and conduct sanitary, preventive and anti-epidemic measures, including infectious diseases

- Ability to determine the tactics of management of persons subject to dispensary supervision
- Ability to keep medical records

1.3.2. The study of the discipline provides students with the acquisition of the following **program learning outcomes:**

PRN 1. Acquisition by a person of general and special fundamental and professionally-oriented knowledge, skills, abilities, competencies necessary for the performance of typical professional tasks related to his / her activity in the medical field in the relevant position

PRN 2. Knowledge of psychophysiological features of the person, human health, support of health, prevention of diseases, treatment of the person, health of the population

PRN 3. Ability to apply the acquired knowledge, skills and understanding to solve typical problems of the doctor, the scope of which is provided by lists of syndromes and symptoms, diseases, emergencies, laboratory and instrumental research, medical manipulations

PRN 4. Collection of information about the patient

PRN 5. Evaluation of survey results, physical examination, laboratory and instrumental research data

PRN 6. Establishment of a preliminary clinical diagnosis of the disease

PRN 7. Determining the nature, principles of treatment of diseases

PRN 8. Determination of the necessary diet in the treatment of diseases

PRN 9. Determining the tactics of contingent of persons subject to medical supervision or in need of palliative care

PRN 10. Diagnosing emergencies, determining the tactics of emergency medical care

PRN 11. Carrying out of sanitary-and-hygienic and preventive actions

PRN 12. Planning of preventive and anti-epidemic measures on infectious diseases

PRN 15. Execution of medical manipulations

PRN 17. Maintenance of medical documentation, processing of state, social and medical information

PRN 18. Ability to assess and support human health, taking into account the impact of the environment and other health factors

PRN 20. Ability to apply the acquired knowledge about the existing health care system to optimize their own professional activities and participate in solving practical problems of the industry

PRN 21. Formation of a specialist with appropriate personal qualities, who adheres to the code of ethics of the doctor

1.3.3. The study of the discipline provides students with the following **social skills (Soft skills):**

- Ability to learn quickly.
- Think analytically.
- Think critically.
- Think strategically.
- Think systematically.
- Think creatively.
- Initiative.
- Ability to work in a team, the ability to comprehensively solve the problem.

- Communicate in writing and orally.
- Flexibility (ability to adapt to any situation).
- Effective communication.
- Ability to solve problems and ingenuity.
- Accepting feedback.
- Confidence.
- Tolerance.
- Hard work and desire for self-development.
- High level of communication culture.
- High level of moral virtues.
- Education and erudition.
- Patriotism and national consciousness.

2. INFORMATION VOLUME OF THE ACADEMIC DISCIPLINE.

Name of indicators	Field of knowledge, specialty, educational degree, OPP	Characteristics of the discipline	
		full-time education	
Number of credits - 4	Field of knowledge <u>22 "Health"</u> (code and name)	Selective	
Total number of hours - 120	Specialty: <u>222 "Medicine"</u> (code and name)	Year of preparation:	
		6th -	–
		Semester	
		11th, 12th -	–
Hours for full-time study: – 20 independent student work – 100	Educational degree: second (master's) EPP Medicine	Lectures	
		–	–
		Hours for full-time study:	
		- 20	–
		Classrooms	
		–	–
		Independent work of the student	
		- 100	–
Individual tasks: participation in conferences, competitions, contests, etc.			
Type of final control: test			

2.2 Description of the discipline

2.2.1 Practical training

№	Topics name	Number of hours	Teaching methods	Forms of control
1	Features of management of a patient with HIV infection.	5,0	Narrative-explanation, conversation, illustration, demonstration, presentation, videos, discussion, role play, process and situation modeling, case method, standardized patient	<u>Current control:</u> oral examination, test control, self-control <u>Final control:</u> test
2	Features of patient management with viral opportunistic infections.	5,0		
3	Features of patient management with bacterial and fungal opportunistic infections.	5,0		
4	Features of patient management with opportunistic invasions. Test.	5,0		
Total hours		20,0		

2.2.2 Individual work

№ з/п	Topics name	Number of hours	Teaching methods	Forms of control
1	Features of management of a patient with HIV infection.	25,0	Study of new material, partially exploratory, reproductive	<u>Current control:</u> oral examination, test control, self-control <u>Final control:</u> test
2	Features of patient management with viral opportunistic infections.	25,0		
3	Features of patient management with bacterial and fungal opportunistic infections.	25,0		
4	Features of patient management with opportunistic invasions. Test.	25,0		
Усього годин		100,0		

3. EVALUATION CRITERIA

3.1. Current control in the form of oral examination, test written control, control of practical skills.

Final control in the form of offset.

The maximum number of points that a student can score for studying the discipline - 200 points, the minimum - 120 points.

Assessment of the results of the discipline is carried out directly at the last (test) lesson.

After completing the study of the discipline, the teacher puts the student's number of points in the record book and fill in the progress of students in the discipline in the form: U-5.03A - **credit**.

Students who do not enroll in the discipline are given "FX" or "F" ("unsatisfactory").

During the assessment of mastering each subject of the discipline (current educational activity - PND) the student is graded according to the traditional 4-point system: "excellent", "good", "satisfactory" and "unsatisfactory".

The final score for IPA is defined as the arithmetic mean of traditional grades for each lesson, rounded to 2 decimal places and converted into a multi-point scale according to the table.

The conversion of the average grade for current activities into a multi-point scale is carried out in accordance with the "Instructions for assessing the educational activities of students of KNMU (table).

Recalculation of the average score for current activities in a multi-point scale
(for disciplines ending with a credit)

4-point scale	200-point scale	4-point scale	200-point scale	4-point scale	200-scale
5	200	4,22-4,23	169	3,45-3,46	138
4,97-4,99	199	4,19-4,21	168	3,42-3,44	137
4,95-4,96	198	4,17-4,18	167	3,4-3,41	136
4,92-4,94	197	4,14-4,16	166	3,37-3,39	135
4,9-4,91	196	4,12-4,13	165	3,35-3,36	134
4,87-4,89	195	4,09-4,11	164	3,32-3,34	133
4,85-4,86	194	4,07-4,08	163	3,3-3,31	132
4,82-4,84	193	4,04-4,06	162	3,27-3,29	131
4,8-4,81	192	4,02-4,03	161	3,25-3,26	130
4,77-4,79	191	3,99-4,01	160	3,22-3,24	129
4,75-4,76	190	3,97-3,98	159	3,2-3,21	128
4,72-4,74	189	3,94-3,96	158	3,17-3,19	127
4,7-4,71	188	3,92-3,93	157	3,15-3,16	126
4,67-4,69	187	3,89-3,91	156	3,12-3,14	125
4,65-4,66	186	3,87-3,88	155	3,1-3,11	124
4,62-4,64	185	3,84-3,86	154	3,07-3,09	123
4,6-4,61	184	3,82-3,83	153	3,05-3,06	122
4,57-4,59	183	3,79-3,81	152	3,02-3,04	121
4,54-4,56	182	3,77-3,78	151	3-3,01	120
4,52-4,53	181	3,74-3,76	150	Less than 3	Not enough
4,5-4,51	180	3,72-3,73	149		
4,47-4,49	179	3,7-3,71	148		
4,45-4,46	178	3,67-3,69	147		
4,42-4,44	177	3,65-3,66	146		
4,4-4,41	176	3,62-3,64	145		
4,37-4,39	175	3,6-3,61	144		
4,35-4,36	174	3,57-3,59	143		
4,32-4,34	173	3,55-3,56	142		
4,3-4,31	172	3,52-3,54	141		
4,27-4,29	171	3,5-3,51	140		
4,24-4,26	170	3,47-3,49	139		

3.2. Control questions:

1. The current state of the problem of HIV infection. Legal, moral, psychological aspects of HIV infection. Normative documents of the Ministry of Health of Ukraine.
2. Etiology and epidemiology of HIV infection.
3. Features of the pathogenesis of HIV infection.
4. Classification, clinical manifestations, diagnosis and principles of HIV treatment.
5. Methodology and principles of voluntary counseling and testing (VCT) for different groups of the population. Rules for filling out medical records, algorithm of actions of the patient and the doctor. Combating stigma and discrimination in society and medical institutions.
6. Clinical manifestations of HIV infection according to clinical stages I and II. Acute retroviral syndrome.

7. Clinical manifestations of HIV infection according to clinical stages III and IV.
8. Clinical criteria for the diagnosis of HIV infection. The concept of HIV / AIDS-indicating diseases.
9. Differential diagnosis of CNS lesions in HIV infection: primary CNS lesions (caused directly by HIV) and secondary CNS lesions (caused by opportunistic infections or neoplasms).
10. Indications for the beginning of ART. Groups of antiretroviral drugs. General rules for prescribing ART. Criteria for therapeutic efficacy of ART.
11. The concept of HIV-associated infections and invasions (bacterial, viral, fungal, caused by protozoa).
12. HIV-associated diseases characteristic of stage I-II of HIV infection. Clinical manifestations, principles of diagnosis: candidiasis of mucous membranes, angular cheilitis, bacterial and fungal lesions of the skin and nails, recurrent sepsis, shingles, seborrheic, papular itchy dermatitis. Basic principles of treatment of opportunistic infections of this group.
13. HIV-associated diseases characteristic of stage III HIV infection: hairy leukoplakia of the tongue, pulmonary tuberculosis, severe bacterial infections, necrotizing ulcerative gingivitis or periodontitis, aspergillosis. Unmotivated anemia, neutropenia, thrombocytopenia. Basic principles of treatment of opportunistic infections of this group.
14. HIV-associated diseases characteristic of stage IV HIV infection: HIV depletion syndrome, HIV encephalopathy, esophageal candidiasis, Kaposi's sarcoma, pneumocystic pneumonia, disseminated disseminated mycoses, cerebral cryosucogenesis, cerebral toxoplasmosis, lymphoma, visceral leishmaniasis. Basic principles of treatment of opportunistic infections of this group.
15. Prevention of HIV infection. Post-exposure prevention measures.
16. Prevention of opportunistic infections and invasions (primary and secondary).
17. Universal safety measures and organization of the doctor's work in order to prevent HIV infection of medical workers. Safety precautions when performing invasive manipulations. Measures in case of contamination with infectious material in the workplace.

3.3. Individual tasks

For participation in conferences, Olympiads, conducting scientific research, writing abstracts, articles, the applicant receives additional points (up to 10), which are added to the IPA.

4. DISCIPLINE POLICY

It is expected that higher education students will attend all practical classes. Missed classes must be completed (according to the schedule of the department and the order of KNMU).

Written and homework must be completed in a timely manner, and if higher education students have questions, they can contact the teacher in person or by e-mail.

The practical lesson provides active participation during the discussion in the audience. Applicants for higher education should be ready to understand the material in detail, ask questions, express their views, discuss. During the discussion it is important:

- respect for colleagues,
- tolerance for others and their experience,
- susceptibility and impartiality,
- the ability to disagree with the opinion, but to respect the identity of the opponent (s),
- careful argumentation of his opinion and the courage to change his position under the influence of evidence,
- self-expression, when a person avoids unnecessary generalizations, describes his feelings and formulates his wishes based on their own thoughts and emotions,

- Mandatory acquaintance with primary sources.

A creative approach in its various manifestations is welcome. Applicants from higher education are expected to be interested in participating in city, national and international conferences, competitions and other events in the subject profile.

The first lesson of the discipline will explain the basic principles of labor protection by conducting appropriate training. It is expected that everyone should know where the nearest evacuation exit is, where the fire extinguisher is, how to use it, and so on. The form of clothing is a medical gown, hat, medical mask, changeable shoes.

It is important for students to follow the rules of good behavior at the university. These rules are common to all, they also apply to all faculty and staff, and are not fundamentally different from the generally accepted norms.

During classes it is allowed:

- leave the audience for a short time if necessary and with the permission of the teacher;
- drink soft drinks;
- take photos of presentation slides;
- take an active part in the class;

not allowed:

- eat (except for persons whose special medical condition requires another - in this case, medical confirmation is required);
- smoking, drinking alcohol and even low-alcohol beverages or drugs;
- use obscene language or use words that offend the honor and dignity of colleagues and faculty;
- gambling;
- damage the material and technical base of the university (damage inventory, equipment; furniture, walls, floors, litter the premises and territories);
- shouting, shouting or listening to loud music in classrooms and even in corridors during classes.

5. ACADEMIC INTEGRITY

The Department of Infectious Diseases maintains zero tolerance for plagiarism. Applicants for higher education are expected to constantly raise their awareness of academic writing.

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6. RECOMMENDED LITERATURE

Basic

1. Infectious Diseases: textbook / O.A. Holubovska, M.A. Andreichyn, A.V. Shkurba et al.; edited by O.A. Holubovska. – Kyiv: AUS Medicine Publishing, 2018. – 664 p.
2. Atlas of Infectious Disease Pathology / ed. B. H. Schmitt. - Cham: Springer, 2017. - X, 255 p.: fig. - (Atlas of Anatomic Pathology / ed. Liang Cheng).
3. Clinical Infectious Disease / ed.: D. Schlossberg. – [2nd Ed.]. – Cambridge University Press, 2015 [pdf 46 MB].
4. Mandell, Douglas, and Bennett's Infectious Disease Essentials / ed.: J. E. Bennett, R. Dolin, M. J. Blaser. - Philadelphia: Elsevier, 2017. - XI, 520 p. - (ExpertConsult).
5. Harrison's Principles of Internal Medicine. - 19th Edition // Dan Longo, Anthony Fauci, Dennis

Kasper, Stephen Hauser. - McGraw-Hill, 2015.

6. Harrison's Infectious Diseases / Ed. by DL Casper, AS Fauci. - McGraw-Hill, 2010. - 1294 p.

Auxiliary

1. Medicine according to Davidson: principles and practice: manual: trans. 23rd English ed. : in 3 vols. Vol. 2 / ed. Stuart G. Ralston, Jan D. Penman, Mark W. J. Streken, Richard P. Hobson; Science. ed. lane. Kateryna Yurko, Vasyl Moskalyuk, Larysa Moroz and others. - K. : BCB «Медицина», 2021. - 778 с.

2. Harrison's Principles of Internal Medicine. - 19th Edition // Dan Longo, Anthony Fauci, Dennis Kasper, Stephen Hauser. - McGraw-Hill, 2015.

3. Nosocomial infections and infection control: textbook. manual / K.V. Юрко, B.M. Kozko, G.O. Straw. - Kyiv: VSV "Medicine", 2020. - 296 p.

4. Order of the Ministry of Health of Ukraine № 1292 dated 05.06.2019 "On approval a new clinical protocol for the use of antiretroviral drugs for the treatment and prevention of HIV infection. "

7. INFORMATION RESOURCES

1. <http://distance.knmu.edu.ua/>

2. <http://www.who.int/hiv/pub/idu/ru/>

3. <http://www.sida.org>

4. www.aidsalliance.org.ua, office@aidsalliance.org.ua

5. www.med-info.net.ua

6. <http://www.foxitsoftware.com>

7. <http://www.euro.who.int>

8. <http://www.kmu.gov.ua>

9. <http://www.ses.gov.ua/admin/uploaded/pdkul.doc>

10. http://www.who.int/malaria/about_us/ru/index.html

11. http://ihed.org.ua/images/biblioteka/rozroblennya_osv_program_2014_tempus-office.pdf