MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE

V.N. KARAZIN KHARKIV NATIONAL UNIVERSITY

SCHOOL OF MEDICINE

Department of general and clinical immunology and allergology

"APPROVED"

Vice-President for Research and Education

_____A.V. Panteleimonov

"____"_____20**20**year

WORKING PROGRAM

Discipline: "INFECTIOUS DISEASES"

Educational qualification	«Specialist»
branch of learning	22 "Health care"
specialty	7.12010001 «Medical case»
educational program of professional qualification: "Doctor"	
specalization	222 "Medicine"
type of discipline	obligatory discipline
faculty	medical

2020 /2021 year of studies

The working program of the discipline «Infectious diseases» for applicants for the educational qualification «Specialist» of the professional qualification «Doctor» branch of learning 22 «Health care» specialty 222 «Medicine». V.N. Karazin Kharkiv National University, School of medicine. «13» 05 2020 year. - 39 p.

The working program of the discipline «Infectious diseases» for applicants for the educational qualification "Specialist" of the professional qualification "Doctor" branch of learning 22 "Health care" specialty 222 "Medicine" in the school of medicine of the V.N.Karazin Kharkiv National University is prepared on the basis of the standard (approximate) program of the discipline compiled by the State institution "Central methodical office of higher medical education of the Ministry of Healthcare of Ukraine" agreed with the Head of the State institution "Central methodical office of higher medical education of the Ministry of Healthcare of Ukraine" I. Melnik on the 28th of April 2017, agreed with the Acting Head of the Education and Science department of the Ministry of Healthcare of Ukraine N .Oleksina on the 3rd of May 2017 and approved by the Vice-minister of the Ministry of Healthcare of Ukraine O. Linchevskiy on the3rd of May 2017.

Authors of the working program of the discipline «Infectious diseases»:

- T.I. Liadova, Doctor of Medicine, Professor, Head of the Department of General and clinical immunology and allergology of the V.N. Karazin Kharkiv National University;
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- O.V. Hololobova, Candidate of Medical sciences, Associate Professor of the Department of General and clinical immunology and allergology of the V.N. Karazin Kharkiv National University;

Working program was reviewed and approved at a meeting of the Department of general and clinical immunology and allergology of the school of medicine of the V.N. Karazin Kharkiv National University, protocol №10 «04» 05 2020 year.

Head of Department of general and clinical immunology and allergology, Doctor of Medicine, T.I .Liadova _____ «04» 05 2020 year

The program is agreed with the guarantor of the educational (professional / scientific) program (project team leader) «Medicine»
the name of the educational program

Guarantor of educational (professional / scientific) program (project team leader) full professor, MD, Nikolenko Ye.Ya.

_____ (Signature)

Nikolenko Ye. Ya. (last name and first name)

Working program was reviewed and approved at a meeting of the Methodical committee of the school of medicine of V.N. Karazin Kharkiv National University, protocol № 9 «06» 05 2020 year.

Head of the Methodical committee_____Candidate of Medicine, Associate Professor,

"06" 05 2020 year

O.L. Govalenkova

EXPLANATORY NOTE

The working program of the discipline «Infectious diseases» for applicants for the educational qualification «Specialist» of the professional qualification «Doctor» branch of learning 22 «Health care» specialty 222 «Medicine» in the school of medicine of the V.N. Karazin Kharkiv National University is prepared on the basis of the standard (approximate) program of the discipline compiled by the State institution «Central methodical office of higher medical education of the Ministry of Healthcare of Ukraine» agreed with the Head of the State institution «Central methodical office of higher medical education of the Ministry of Healthcare of Ukraine» I. Melnik on the 28th of April 2017, agreed with the Acting Head of the Education and Science department of the Ministry of Healthcare of Ukraine N .Oleksina on the 3rd of May 2017 and approved by the Vice-minister of the Ministry of Healthcare of Ukraine O. Linchevskiy on the3rd of May 2017.

The working program of the discipline «Infectious diseases» is compiled according to the Project of a Standard of the higher medical education of Ukraine of the second (master's) program branch of learning 22 «Health care» specialty 222 «Medicine» for applicants for the educational qualification «Specialist» of the professional qualification «Doctor» discussed at the XIII All-Ukrainian research and practical conference with an international participation «Topical issues of a quality of the medical education» (12th -13th of May 2016, Ternopil, Ukraine), and an approximate educational plan for applicants for the educational qualification «Specialist» of the professional qualification «Doctor» branch of learning 22 «Health care» specialty 222 «Medicine», approved by the Acting Minister of Healthcare of Ukraine V. Shafranskiy on the 26th of July 2016, taking into account regulations of the Protocol for grading the learning activity of applicants for higher medical education in conditions of an implementation of the the European Credit Transfer System (ECTS) of the organization of the educational process, approved by the Ministry of Healthcare of Ukraine on the 15th of April 2014; the Low of Ukraine «On higher education» № 2443-VIII dated 22nd of May 2018; Statute of the organization of the educational process in the V.N. Karazin Kharkiv National University, approved on the meeting of the Academic Board of the University (protocol of the meeting №5 dated 27th of March 2017), and accepted by the order of the President of the University (order № 0202-1/155 dated 21st of April 2017) in the revised version dated 5th of September 2018; educational plan of training for applicants for educational qualification «Specialist» of the professional qualification «Doctor» branch of learning 22 «Health care» specialty 222 «Medicine» in the medical faculty, approved by the Academic Board and accepted by the order of the President of V.N. Karazin Kharkiv National University, Educational and professional program of the higher education training for applicants for the educational qualification «Specialist» of the professional qualification «Doctor» branch of learning 22 «Health care» specialty 222 «Medicine» on the school of medicine, approved by the Academic Board of V.N. Karazin Kharkiv National University (protocol № 13 dated 31st of October 2016); the Statute of V.N. Karazin Kharkiv National University, approved by the order of the Ministry of Education and Science of Ukraine (order №644 dated 13th of June 2018); The codex of values of V.N. Karazin Kharkiv National University and other regulatory acts.

The duration of studies of the discipline «Infectious diseases» is 2 semesters (IX-X) during the 5th academic year, total amount of academic hours is 180 hours (6,0 ECTS credits), of which 10 hours – lectures, 70 hours – practical classes, 100 hours – independent work (IW). Structure of hours for studying the discipline «Infectious diseases» is in the table below (Table 1).

Academic hours for studying the discipline «Infectious diseases»

Table 1

Stucture of the discipline	Hours				ECTS Credits	Year and semester of studying	Type of control
	Lectures	Practical classes		total			
Module 1 (5 content modules)	10	70	100	180	6,0	5 course, IX-X semester	Final module (Differentiated credit)
TOTAL	**10**	**70**	**100**	**180**	**6,0**		

Note: 1 ECTS credit – 30 academic hours; teaching load – 44,4%; IW – 55,6%, average weekly load- 5,1 hours per week (including IW); average weekly teaching load – 2,3 hours per week

I. EDUCATIONAL DISCIPLINE DESCRIPTION

Discipline «Infectious Diseases» as a discipline is based on the study by applicants for higher medical education of medical and biological physics, morphological disciplines, microbiology, virology and immunology, physiology, pathophysiology, internal medicine, surgery, neurology, dermatology, epidemiology, ophthalmology, otolaryngology, endocrinology, clinical pharmacology, resuscitation and integrates with these disciplines; lays the foundations for applicants for the higher medical education to integrate stadying of this discipline and to develop the ability to apply knowledge of infectious diseases in further learning and professional work; lays the foundations for a healthy lifestyle and prevention of impaired body functions in the process of life. In the general system of the doctor training the discipline «Infectious diseases» occupies an important place in view of the significant prevalence of infectious pathology, the need for future physician to develop clinical thinking, proficiency and practical skills that will ensure timely diagnosis of infectious diseases and their complications, rational treatment, the choice of optimal tactics in the case of emergency care. Special attention is given to questions of early diagnosis and treatment of patients at the the pre-hospital stage, which contributes to improving the quality of physician training, especially for the outpatient health care unit.

The organization of the educational process in studying the discipline «Infectious diseases» is provided with European Credit Transfer System (ECTS) according to the demands of the Bologna process. The main types of educational work in the process of the discipline «Infectious diseases» studying are lectures and practical classes, independent work, consulting according to the schedule, which is approved at the beginning of each academic year at the meeting of the Department of general and clinical immunology and allergology (additionally in case of need consultions are held using Internet technologies, distance learning technologies, webinars, conferences, research works etc.). The topics of the lectures of the discipline «Infectious diseases» reveal the problematic issues of the relevant sections of the discipline and allow applicants for higher medical education to receive information on the most relevant issues of the discipline. Classes in the course of «Infectious diseases» according to the method of their organization are practical classes,where videos, movies shown with the help of computer software and other educational technologies can be used; solving of situational tasks (laboratory diagnostics of infectious diseases, assessment of indexes of immunity, statistics, analytical methods) that have experimental, clinical and diagnostic or sanitary-hygienic direction. In practical classes applicants for higher medical education receive recommendations to briefly record the research protocols, which should indicate the purpose of the study, the results of the study, and conclusions. The general amount of stadying load is described in ECTS credits, which are scored to applicants for higher medical education in case of successful learning the exact module (final credit). The European Credit Transfer System encourages applicants for higher medical education to study systematically during the studying year when learning the discipline.

The Academic Council of the School of medicine on the demand of the department of General and clinical immunology and allergology can change the amount of hours of the

discipline «Infectious diseases», but not more than 10% of their amount. The department of General and clinical immunology and allergology has a right to make some changes in the working program according to its organizational and technical possibilities, the direction of research works, ecological peculiarities of the region, but general demands of the discipline and educational plans must be considered. Current program totally satisfy requirements of demands mentioned above.

Current educational work of applicants for higher medical education is controlled on the practical classes according to specific goals. To estimate the level of knowledge of applicants for higher medical education it is recommended to use such methods as tests, written or oral answers on control questions, solving situational tasks, providing laboratory examinations, results of laboratory analyses, controlling the mastering practical skills by applicants for higher medical education. The final module control is carried out at the end of the study of modules. Assessment of applicant knowledge in the discipline is rating and is set on a multi-point scale as the arithmetic average score of mastering the relevant modules and is defined according to the ECTS system and the traditional scale accepted in Ukraine. More details about the method of estimating of the current educational program and the results of final module are described in the corresponding chapter of the current working program (see below).

1.1. THE PURPOSE OF STUDIES OF THE EDUCATIONAL DISCIPLINE

The purpose of teaching the discipline "Infectious diseases" is to obtain and deepen a set of knowledge, skills, and other competencies sufficient to produce new ideas, solve complex problems in this discipline, master the methodology of scientific and pedagogical activities, as well as conduct own research, which reveals the current scientific problems of infectious diseases, the results of which have scientific novelty, theoretical and practical value.

1.2. THE MAIN TASKS OF STUDYING OF THE EDUCATIONAL DISCIPLINE

The main tasks of studying the discipline «Infectious diseases» are to sirch and clarification of the modern patterns of the spread of infectious diseases and affection of the human body in infectious diseases:

- research on ways of spreading of infectious diseases among different population groups,
- study of mechanisms and ways of interruption of the transmission of infectious diseases,
- study the features of the clinical course of infectious diseases according to disease stages,
- prevention of the development of complications in infectious diseases,
- demonstration of understanding of standards of care for infectious diseases,
- mastering the basic principles of medical care in the the pre-hospital stage,
- familiarization with the main anti-epidemic measures,
- development of preventive measures on the workplace.

ACCORDING TO THE REQUIREMENTS OF THE EDUCATIONAL AND PROFESSIONSL PROGRAM APPLICANS FOR HIGHER MEDICAL EDUCATION SHOULD

know:

- the fundamenals of health legislation and policy documents that define the activities of health authorities and institutions;
- general issues of the infectious diseases service organization in Ukraine;
- anti-epidemic measures in case of infection;
- principles of treatment of infectious diseases;
- tactics of the emergency medical care providing;
- tactics of observation of groups of popultion subjected to dynamic supervision;
- organization of the work of outpatient departments;

- organization of ambulance and emergency care for adults;
- organization of the dispensary supervision;
- principles of diet therapy, physiotherapy and therapeutic physical training;
- forms and methods of sanitary and educational work;
- modern sources of literature in the specialty;

must master skills:

- to collect information about the patient;
- to establish a preliminary clinical diagnosis of the disease;
- to carry out a differential diagnosis;
- to diagnose urgent states;
- to make a plan of the patient examination;
- to determine the need for special methods of research (laboratory, functional), to organize their implementation and give them a correct interpretation;
- to evaluate the results of laboratory and instrumental studies;
- to determine the necessary mode of work and rest in the treatment of diseases;
- to determine the necessary diet for the treatment of diseases;
- to determine the direction of the treatment of the disease;
- to substantiate medical tactics and methods of treatment taking into account the individual features of the patient and the general patterns of the disease;
- to provide emergency medical care;
- to carry out medical manipulations;
- to carry out sanitary and hygienic and preventive measures;
- to plan preventive and anti-epidemic measures for infectious diseases;
- to conduct medical evacuation activities;
- to summarize scientific and practical literature;
- to actively participate in the distribution of medical knowledge among the population;
- to carry out educational work (conversations, lectures) among the population, patients and in the institutions of general medical service.

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 Standard).

In accordance with the requirements of the standard, the discipline provides the acquisition of higher education competencies:

- *integral:*

- Ability to solve typical and complex specialized problems and practical problems in a professional health care activity, or in a learning process that involves research and / or innovation and is characterized by the complexity and uncertainty of conditions and requirements.

- *general:*

- Ability to apply knowledge in practical situations.
- Ability to exercise self-regulation, lead a healthy lifestyle, ability to adapt and act in a new situation.
- Ability to choose a communication strategy; ability to work in a team; interpersonal skills.
- Skills in the use of information and communication technologies.
- Ability to abstract thinking, analysis and synthesis, the ability to learn and be modernly trained.
- Definiteness and perseverance in terms of tasks and responsibilities.
- Ability to act socially responsible and public consciousness.
- The desire to preserve the environment.

- special (professional, subject):
- Ability to carry out medical and evacuation measures.
- Ability to carry out sanitary and hygienic and preventive measures.
- Ability to plan preventive and anti-epidemic measures for infectious diseases.
- Ability to carry out preventive and anti-epidemic measures against infectious diseases.
- Ability to process state, social, economic and medical information.
- Ability to conduct epidemiological and medical-statistical studies of public health.
- Ability to assess the impact of the environment on the health of the population (individual, family, population).
- Ability to assess the impact of socio-economic and biological determinants on the health of the individual, family, population.

1.3. NUMBER OF CREDITS

The discipline program is structured into 1 ECTS module, which consists of 5 content modules with a total volume of 6.0 credits (180 hours). The volume of academic load for the applicant for higher medical education is described in ECTS credits - score credits, which are given to the applicants for higher medical education upon successful completion of the module.

The educational process is organized according to the credit-module system in accordance with the implementation of the provisions of the Bologna Declaration in the higher medical education system.

1.4. TOTAL AMOUNT OF HOURS

Table 2

1.5. Characteristics of the discipline	
Obligatory	
Full-time education	
Year of training	
5-th	
semester	
IX-X	
lectures	
10 hours	
Practical, seminar classes	
70 hours	
Laboratory classes	
–	
Independent work	
100 hours	

Distribution of Academic hours for studying the discipline «Infectious diseases»

Table 3

Stucture of the discipline	Hours				Credits ECTS	Year and semester of studies	Type of control
	Lectures	Practical classes	IW	total			
Module 1 (3 content modules)	10	40	40	90	3,0	5 year, IX semester	Current
Module 2 (2 content modules)	-	30	60	90	3,0	5 year, X semester	Final module (Differentiated credit)
TOTAL	**10**	**70**	**100**	**180**	**6,0**		

Note: 1 credit ECTS – 30 academic hours; teaching load – 44,4%; IW – 55,6%, average weekly load- 5,1 hours per week (including IW); average weekly teaching load – 2,3 hours per week

1.5. PLANNED LEARNING RESULTS

The final goals of the discipline

- To identify the main clinical symptoms that form a typical syndrome of the most common infectious diseases;
- To make a preliminary diagnosis of the most common infectious diseases (syndrome and etiological);
- To make a preliminary clinical diagnosis, to plan preventive and quarantine measures for the most common and especially dangerous diseases;
- To interpret patterns and specific features of pathological and epidemiological process in different infectious diseases;
- To carry out clinical and laboratory differential diagnosis of various infectious diseases and infectious diseases with non-infectious ones;
- To interpret the results of specific methods of examination in the presence of combined pathology – infectious and non-infectious;
- To determine the tactics of treatment of patients with the most common infectious diseases;
- To determine the tactics of hospitalization and isolation of infectious patients;
- To diagnose medical emergencies and provide pre-hospital care;
- To demonstrate awareness of infectious diseases as a mass destruction weapon;
- To predict the effects of infectious diseases on human health.
- To demonstrate the ability to maintain medical records in an infectious disease clinic.

II. THEMATIC PLAN OF EDUCATIONAL DISCIPLINE

The working program for applicants for higher medical education of the discipline «Infectious diseases» is structured as a single module, which consists of 5 content modules, the study of materials of each allows applicants for higher medical education to fully learn the theoretical part and master practical skills of a separate section of the discipline. The form of discipline control is the control with the help of final module. The Credit-Module Organization of the Educational Process Organization (CISPS) encourages applicants for higher medical education to study systematically throughout the academic year and should improve the quality of applicant training.

The types of training according to the curriculum are lectures, practical classes, independent work (IW).

The topics of the lectures reveal the problematic issues of the relevant sections of the infectious pathology. During the lectures various didactic tools are used – multimedia presentations, educational movies, slides, tape recorders, demonstration of patients. Lecture and practical stages of the stadying of applicants for higher medical education are formed in such a sequence in which topics of lectures are preceded by practical classes.

According to the methodology of the organization the Practical classes are clinical and include:

1. Examination of patients with infectious diseases, which is carried out according to a algorithm.
2. Consideration of theoretical questions and acquisition of practical skills according to standard lists for each practical session and during the final module control.

3. Analysis of archived medical records.
4. Solving situational tasks.
5. Standardized test control, oral and written questioning.

Independent work (IW) takes a significant place in the study of discipline. In addition to the traditional preparation of applicants for higher medical education for practical classes and module control, as well as mastering the list of topics presented for IW, it includes the work of applicants for higher medical education in the clinic in the extra-curricular time with mastering practical skills, drawing up differential diagnosis schemes and algorithms for patients examination, preparing medical records. The effectiveness of the IW should be provided by the collaboration of applicants for higher medical education and teachers.

The assimilation of the topic is monitored during practical classes according to specific goals. The final module control is carried out upon completion of the study of all topics of the module during the last control lesson from the module.

It is recommended to use the following diagnostic methods of the applicant training level: computer testing, filling in the form, solving situational tasks, interpretation of laboratory tests, analysis and evaluation of the results of specific and instrumental methods of examination, control of practical skills, answers to standardized theoretical questions.

Module 1. Infectious and parasitic diseases

Content modules:

1. Introduction to infectology. Infectious diseases with predominance of fecal-oral mechanism of transmission.
2. Infectious diseases with predominance of airborne mechanism of transmission.
3. Infectious diseases with predominance of nloodborne mechanism of transmission (viral hepatitis, HIV).
4. Vector-borne infectious diseases.
5. Infectious diseases with predominance of contact and multiple mechanisms of transmission.

2.1. CONTENT OF THE PROGRAM

Module 1. Infectious and parasitic diseases.

Content module 1. Introduction to infectology . Infectious diseases with predominance of fecal-oral mechanism of transmission.

Specific goals:

- To interpret the concept of "infectious diseases". To determine the place of infectious diseases in the system of medical knowledge, the main stages of the development of infectology as a science.
- To learn the principles of infectious diseases classification.
- To interpret epidemiological and pathogenetic patterns, features of clinical course, diagnosis and prevention of infectious diseases.
- To determine indications for hospital, rules of examination and discharge of patients from the infectious hospital.
- To be able to prepare medical history for an infectious patient.
- To analyze epidemiological, pathogenetic and clinical features of infectious diseases with fecal-oral mechanism of transmission
- To demonstrate skills of clinical and laboratory diagnosis of the most common infectious diseases with the faecal-oral mechanism of transmission and their complications.
- To perform differential diagnosis of the most common infectious diseases with the faecal-oral mechanism of transmission.
- To diagnose medical emergencies in intestinal infectious diseases.

- To prescribe rational treatment of patients with the most common infectious diseases with faecal-oral mechanism of transmission at different stages of medical care.
- To determine the tactics of hospitalization and isolation of patients with the most common intestinal infectious diseases.
- To determine therapeutic tactics in case of complications or medical emergencies in infectious diseases with fecal-oral mechanism of transmission at the the pre-hospital stage.
- To plan the main preventive measures for intestinal infectious diseases.
- To predict the effects of infectious diseases with fecal-oral mechanism of transmission on human health.

Topic 1. Typhoid fever. Paratyphoid fever. Intestinal yersiniosis, pseudotuberculosis.

Place of infectious diseases with fecal-oral mechanism of transmission in the structure of infectious diseases. Epidemiological, pathogenetic and clinical features of intestinal infectious diseases. Modern methods of laboratory diagnostics. Indications for hospitalization and rules of discharge of patients from the infectious hospital. Rules of medical records maintenance.

Typhoid fever, paratyphoid A and B: etiology, epidemiology, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, prognosis. Modern methods of treatment, medical care for patients on the pre-hospital stage. Indications for hospitalization and rules of discharge of patients from the infectious hospital. Principles of prevention.

Pseudotuberculosis: etiology, epidemiology, classification, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications. Modern methods of treatment, medical care for patients on the pre-hospital stage. Indications for hospitalization, rules for discharge of patients from the infectious hospital. Principles of prevention.

Intestinal yersiniosis : etiology, epidemiology, classification, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications. Modern methods of treatment, medical care for patients on the pre-hospital stage. Indications for hospitalization, rules for discharge of patients from the infectious hospital. Principles of prevention.

Topic 2. Diarrheal syndrome in the clinical picture of infectious diseases. The concept of enterotoxigenic and enteroinvasive diarrhea. Salmonellosis. Cholera.
Emergency measures in case of dehydration shock. Viral Infectious diseases with predominance of fecal-oral mechanism of transmission (enteroviral, including poliomyelitis, reoviral, rotaviral, Norfolk-viral infection).

Diarrheal syndrome: etiology, pathogenesis, classification depending on the type of interaction of micro- and macroorganism, clinical features, laboratory diagnostics.

Cholera: etiology, epidemiology, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications. Modern methods of treatment, medical care for patients on the pre-hospital stage. Indications for hospitalization and rules of discharge of patients from the infectious hospital. Preventive measures and immunoprophylaxis.

Salmonellosis: etiology, epidemiology, classification, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications. Modern methods of treatment, medical care for patients on the pre-hospital stage. Indications for hospitalization, rules for discharge of patients from the infectious hospital. Principles of prevention.

Dehydration shock: definition of the term; pathogenesis; clinical and laboratory diagnostics of water-electrolytic disturbances at different stages of dehydration. Differential diagnosis of dehydration shock with shock of another etiology . Principles of treatment, emergency care for patients on the the pre-hospital stage.

Enteroviral diseases: etiology, epidemiology, classification, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications. Principles of treatment, medical care for patients on the pre-hospital stage. Indications for hospitalization, rules for discharge of patients from the infectious hospital. Principles of prevention.

Rotaviral infection: etiology, epidemiology, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, prognosis. Principles of treatment, medical care for patients on the pre-hospital stage. Indications for hospitalization, rules for discharge of patients from the infectious hospital. Principles of prevention.

Topic 3. Shigellosis . Amebiasis. Giardiasis. The concept of intestinal dysbiosis. Peculiarities of diagnostics, clinical course and treatment of diseases with fecal-oral mechanism of transmission in elderly and senile persons.

Shigellosis : etiology, epidemiology, classification, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications. Modern methods of treatment, medical care for patients on the pre-hospital stage. Indications for hospitalization and rules of discharge of patients from the infectious hospital. Principles of prevention.

Amebiasis: etiology, epidemiology, classification, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications. Modern methods of treatment, medical care for patients on the pre-hospital stage. Indications for hospitalization, rules for discharge of patients from the infectious hospital. Principles of prevention.

Giardiasis: etiology, epidemiology, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications. Principles of treatment and prevention.

Topic 4. Botulism. Food poisoning. Nematodes (Pinworm infection, ascariasis, trichocephalosis, trichinosis, strongyloidosis). Cestodes (teniasis cysticercosis, tapeworm infection, hymenolepis, echinococcosis). Trematodes (opisthorchiasis).

Botulism: etiology, epidemiology, classification, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, prognosis. Modern methods of treatment, medical care for patients on the pre-hospital stage. Indications for hospitalization, rules of discharge of patients from the infectious hospital. Principles of prevention.

Food toxic infections caused by conditionally pathogenic flora: etiology, epidemiology, pathogenesis, clinical course, laboratory diagnostics, differential diagnosis, complications. Principles of treatment, medical care for patients on the pre-hospital stage. Indications for hospitalization, rules for discharge of patients from the infectious hospital. Principles of prevention.

Askaridosis.Enterobiasis.Trichocephalosis. Ankylostomidosis. Strongiloidosis.Trichinosis. Dirofilariosis. Etiology, epidemiology, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications of nematodes. Modern methods of treatment. Indications for hospitalization. Principles of prevention.

Toxocariasis: etiology, epidemiology, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, prognosis. Principles of treatment and prevention.

Diphyllobothriasis , beef tapeworm infection , teniasis and cysticercosis, hymenolepiasis , echinococcosis. Etiology, epidemiology, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications of cestodes . Modern methods of treatment. Indications for hospitalization. Principles of prevention.

Opisthorchiasis: etiology, epidemiology, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications. Modern methods of treatment. Indications for hospitalization. Principles of prevention.

Content module 2. Infectious diseases with predominance of airborne mechanism of transmission.

Specific goals:

- To analyze epidemiological, pathogenetic and clinical features of infectious diseases with airborne mechanism of transmission.
- To demonstrate skills of clinical and laboratory diagnostics of infectious diseases with airborne mechanism of transmission and their complications.

- To perform differential diagnosis of the most common infectious diseases with airborne mechanism of transmission.
- To diagnose medical emergencies in infectious diseases of the respiratory system.
- To prescribe rational treatment of patients with infectious diseases with airborne mechanism of transmission at different stages of medical care.
- To determine the tactics of hospitalization and isolation of patients with infectious diseases with airborne mechanism of transmission.
- To determine therapeutic tactics in case of complications or medical emergencies of infectious diseases of the respiratory system at the the pre-hospital stage.
- To plan the main preventive measures for infectious diseases with airborne mechanism of transmission.
- To predict the effects of infectious diseases of respiratory system on the human health.

Topic 5. General characteristics of infectious diseases with predominance of airborne mechanism of transmission. Influenza. Features of new pandemic strains, Avian flu . Other ARVI: parainfluenza, adenoviral infection, RS infection, rhinoviral infection. Infectious diseases with a clinical picture of atypical pneumonia: respiratory mycoplasmosis, ornithosis, legionellosis.

Place of infectious diseases with airborne mechanism of transmission in the structure of infectious pathology. Epidemiological, pathogenetic and clinical features of infectious respiratory diseases. The procedure of hospitalization, examination and discharge of patients. Features of medical records maintance.

Influenza: etiology, epidemiology, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, prognosis. Modern methods of treatment of patients. Principles of immunoprophylaxis. Evaluation of specific and non-specific measures of prevention. Indications for hospitalization, rules for discharge of patients from the infectious hospital. Medical care for patients on the pre-hospital stage.

The role of animal and bird influenza viruses in human pathology.

Definition of the terms "ARVI" and "SARS". The etiology of SARS. The place of SARS in the structure of infectious pathology.

Parainfluenza: etiology, epidemiology, pathogenesis, classification, clinical course, diagnosis, complications.

Adenoviral disease: epidemiology, pathogenesis, classification, clinical course, diagnosis, complications.

RC infection: etiology, epidemiology, pathogenesis, classification, clinical course, diagnosis, complications.

Rhinoviral infection: etiology, epidemiology, pathogenesis, clinic, complications

Differential diagnosis of SARS. Principles of laboratory diagnosis, treatment and prevention of SARS. Indications for hospitalization, rules for discharge of patients from the infectious hospital. Medical care for patients on the pre-hospital stage.

Respiratory mycoplasmosis: etiology, epidemiology, pathogenesis, classification, clinical course, differential diagnosis, complications. Principles of laboratory diagnostics, treatment and prevention.

Ornithosis: etiology, epidemiology, pathogenesis, classification, clinical course, differential diagnosis, complications. Principles of laboratory diagnostics, treatment and prevention.

Legionellosis: etiology, epidemiology, pathogenesis, classification, clinical course, differential diagnosis, complications. Principles of laboratory diagnostics, treatment and prevention.

Indications for hospitalization with atypical pneumonia. Medical care for patients on the pre-hospital stage. The concept of SARS.

Topic 6. Meningococcal infection. Differential diagnosis of serous (including tuberculous) and purulent meningitis. Peculiarities of the course, diagnosis, treatment of diseases with

predominance of airborne mechanism of transmission in elderly and senile. Medical emergencies: edema and swelling of the brain, infectious-toxic shock.

Meningococcal infection: a place in the structure of infectious pathology of Ukraine. Etiology, features of epidemic process, pathogenesis, classification, clinical and laboratory diagnostics of various forms of meningococcal infection, differential diagnosis, complications, prognosis. Principles of treatment of different clinical forms. Indications for hospitalization and rules of discharge of patients from the infectious hospital. Emergency care of patients on the pre-hospital stage. Preventive measures.

Pathogenesis of meningeal syndrome. Definitions of «meningism» and «meningitis». Etiology, pathogenesis, classification of meningitis. Clinical and laboratory diagnostics. Differential diagnosis of serous and purulent meningitis of different etiology. Principles of treatment and prevention. Emergency care of patients on the pre-hospital stage.

Edema of Braine: definition of the term; current views on pathogenesis; classification; clinical diagnostics; principles of treatment; emergency care for patients on the pre-hospital stage.

ITS: definition of the term; current views on pathogenesis; classification; clinical and laboratory diagnostics; principles of treatment; emergency care for patients on the pre-hospital stage.

The real croup: definition of the term; pathogenesis; stages; clinical and laboratory diagnostics; principles of treatment, emergency care for patients in the the pre-hospital stage.

False croup: definition of the term; pathogenesis; stages; clinical and laboratory diagnostics; principles of treatment, emergency care for patients in the the pre-hospital stage.

ARF: definition of the term; current views on pathogenesis; classification; clinical and laboratory diagnostics; principles of treatment; emergency care for patients on the pre-hospital stage.

Topic 7. «Childhood» airborne infections (measles, rubella, mumps) in adults. Diphtheria.

Measles: etiology, epidemiology, pathogenesis, clinic, features of the course in adults, laboratory diagnosis, differential diagnosis, complications. Principles of treatment, anti-epidemic measures in the focus of the disease. Principles of immunoprophylaxis. Medical care for patients on the pre-hospital stage. Indications for hospitalization, rules for discharge of patients from the infectious hospital.

Rubella: etiology, epidemiology, pathogenesis, clinic, features of the course in adults, laboratory diagnosis, differential diagnosis, complications. Principles of treatment and prevention (including immunoprophylaxis) of rubella. Indications for hospitalization, rules for discharge of patients from the infectious hospital. The role of rubella virus in fetal pathology.

Viral mumps disease: etiology, epidemiology, pathogenesis, classification, clinical manifestation, features of the course in adults, differential diagnosis, complications. Principles of laboratory diagnostics, treatment and prophylaxis (including immunoprophylaxis). Indications for hospitalization, rules for discharge of patients from the infectious hospital. Medical care for patients on the pre-hospital stage.

Diphtheria: relevance for Ukraine. Etiology, features of epidemic process, pathogenesis, classification, clinical course, laboratory diagnosis, differential diagnosis, complications, prognosis. Principles of treatment and prevention (including immunoprophylaxis). Medical care for patients on the pre-hospital stage. Indications for hospitalization and rules of discharge from the infectious hospital. Medical examination of convalescents .

Acute tonsillitis syndrome. Differential diagnosis of tonsillites of different origin.

Topic 8. Herpesviral infection types caused by virus types1-5 (herpes simplex , chickenpox and herpes zoster, EBV- and cytomegaloviral infection (infectious mononucleosis).

General characteristics of herpesviral infections, etiological structure, place in infectious pathology.

Infections caused by herpes simplex virus HSV-1 and HSV-2: etiology, epidemiology, pathogenesis, classification, clinical manifestations, laboratory diagnosis, differential diagnosis, complications, prognosis. Principles of treatment and prevention of herpesviral infection. Indications for hospitalization. Medical care for patients on the pre-hospital stage.

Chickenpox and herpes zoster : etiology, epidemiology, pathogenesis, classification, clinical manifestations, laboratory diagnosis, differential diagnosis, complications. Principles of treatment and prevention of VZV infection. Indications for hospitalization, rules for discharge of patients from the infectious hospital. Medical care for patients on the pre-hospital stage.

EBV infection and CMV infection : etiology, pathogenesis, classification, clinical presentation, complications, prognosis. Infectious mononucleosis as a polyetiological disease. Differential diagnosis. Laboratory diagnosis. Principles of treatment and prevention of EBV and CMV infections . Indications for hospitalization, rules for discharge of patients from the infectious hospital. Medical care for patients on the pre-hospital stage.

Content module 3. Infectious diseases with predominance of bloodborne mechanism of transmission (viral hepatitis, HIV).

Specific goals:

- To interpret patterns and features of pathological and epidemiological process in acute and chronic viral hepatitis.
- To demonstrate skills of clinical and laboratory diagnostic of acute and chronic viral hepatitis.
- To interpret the results of specific examination methods in acute and chronic viral hepatitis.
- To perform differential diagnosis of jaundices, acute and chronic viral hepatitis, viral hepatitis with infectious and non-infectious diseases.
- To determine the tactics of hospitalization of patients with viral hepatitis.
- To determine the therapeutic tactics of managing of patients with acute and chronic viral hepatitis.
- To diagnose acute hepatic encephalopathy, to know principles of care for patients on the pre-hospital stage.
- To determine tactics for the prevention of viral hepatitis.
- To predict the effects of viral hepatitis on human health.
- To interpret the epidemiological and pathogenic patterns of HIV infection.
- To make a preliminary diagnosis of HIV infection.
- To interpret the results of general clinical, biochemical, immunological, specific laboratory and instrumental methods of examination in patients with HIV infection.
- To perform differential diagnosis of HIV infection.
- To interpret the regulatory documents of the Ministry of Health of Ukraine, which regulate the procedure of voluntary testing, hospitalization, treatment, preventive measures, legal aspects regarding HIV infection.
- To plan the main preventive measures for HIV infection.
- To predict the health effects of HIV infection.

Topic 9. Viral hepatitis with fecal-oral mechanism of transmission. Viral hepatitis with bloodborne mechanism of transmission. The concept of the fulminant viral hepatitis General characteristics of viral hepatitis.

HAV: etiology, epidemiology, classification, pathogenesis, clinical course, complications, prognosis. Indications for hospitalization, rules for discharge of patients from the infectious hospital. Principles of nonspecific and immunoprophylaxis.

HEV: etiology, epidemiology, classification, pathogenesis, clinical course, complications, prognosis. Features of the course in pregnant women. Indications for hospitalization, rules for discharge of patients from the infectious hospital. Principles of prevention.

Acute HBV: etiology, epidemiology, classification, pathogenesis, clinical course, complications, prognosis. Indications for hospitalization, rules for discharge of patients from the infectious hospital. Preventive measures. Immunoprophylaxis.

Acute HCV: etiology, epidemiology, classification, pathogenesis, clinical course, complications, prognosis. Concepts of co- and super-infection , pathogenetic and clinical features. Indications for hospitalization, rules for discharge of patients from the infectious hospital. Preventive measures.

The concept of viral hepatitis G, SEN, TTV.

The concept of fulminant viral hepatitis. Acute hepatic encephalopathy : pathogenesis, clinical and laboratory diagnostics, treatment principles, emergency care for patients at the the pre-hospital stage.

Topic 10. Laboratory diagnostics and approaches to the treatment of viral hepatitis. Features of viral hepatitis C. Indications for liver transplantation. Features of the course, diagnosis, treatment of viral hepatitis in elderly and senile persons.

Laboratory diagnostics of acute viral hepatitis. Specific and biochemical markers. Differential diagnosis of viral hepatitis. Medical tactics, medical care for patients on the pre-hospital stage. Concept of chronic viral hepatitis: etiology, epidemiology, classification, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, consequences. Principles of treatment.

Viral hepatitis C: etiology, epidemiology, classification, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, prognosis. Principles of treatment and prevention. Indications for hospitalization.

Indications for liver transplantation. Features of the clinical course, diagnosis, treatment of viral hepatitis in elderly and senile persons.

Topic 11. HIV infection. Bioethical issues of examination of a patient for HIV infection. The concept of ART.

Relevance of the disease for Ukraine. Etiology, epidemiology, pathogenesis, classification, clinical course, clinical diagnosis of acute phase of HIV infection, differential diagnosis, prognosis. Laboratory diagnostics, plan of examination of the patient in establishment of the preliminary diagnosis of HIV-infection. Principles of ART prescribtion. Preventive measures.

Regulations of the Ministry of Health of Ukraine regulating the procedure of voluntary testing, hospitalization, treatment of patients, preventive measures, as well as legal aspects regarding HIV infection.

Clinical and laboratory diagnostics. Features of opportunistic infections in HIV / AIDS patients. Principles of treatment and prevention. Indications for hospitalization. Medical examination of patients with HIV infection. The concept of immune reconstitution inflammatory disease.

Topic 12. HIV-associated infections and invasions. Tuberculosis as an AIDS indicatin disease. TORCH infections. Toxoplasmosis.

The most common AIDS-associated infectious diseases are: herpes virus; protozoal (cerebral toxoplasmosis, cryptosporidiosis, izosporoz), fungal infections (candidiasis, Pneumocystis pneumonia, cryptococcosis), diseases of bacterial etiology (recurrent bacterial pneumonia, listeriosis, mycobacterioses, Salmonella recurrent septicemia and other disseminated bacterial infection).

Toxoplasmosis: etiology, epidemiology, classification, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, prognosis. Principles of treatment and prevention. Indications for hospitalization.

Content module 4. Vectorborne diseases.

Specific goals:

- To analyze epidemiological, pathogenetic and clinical features of infectious diseases with vectorborne mechanism of transmission .
- To demonstrate skills of clinical and laboratory diagnosis of infectious diseases with vectorborne mechanism of transmission and their complications.
- To perform differential diagnosis of the most common infectious diseases with vectorborne mechanism of transmission .
- To diagnose medical emergencies in infectious diseases with vectorborne mechanism of transmission .
- To prescribe the rational treatment for patients with infectious diseases with vectorborne mechanism of transmission at different stages of medical care.
- To determine the tactics of hospitalization and isolation of patients with infectious diseases with vectorborne mechanism of transmission .
- To determine therapeutic tactics in case of complications or medical emergencies in infectious diseases with vectorborne mechanism of transmission at the the pre-hospital stage.
- To plan the main preventive measures for infectious diseases with vectorborne mechanism of transmission .
- To predict the consequences of infectious diseases with vectorborne mechanism of transmission .

Topic 13. Malaria. Pappataci fever (Phlebotomus fever). The concept of travel medicine.Tropical medicine.

Place of infectious diseases with vectorborne mechanism of transmission in the structure of infectious pathology. Epidemiological, pathogenetic and clinical features of infectious diseases with vectorborne mechanism of transmission . The procedure of examination, hospitalization, and discharge of patients from the infectious hospital. Features of medical records maintance.

Malaria: etiology, epidemiology, classification, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, prognosis. Modern methods of treatment, medical care for patients at the the pre-hospital stage, therapeutic tactics in case of medical emergencies . Indications for examination, hospitalization, rules of discharge of patients from the infectious hospital. Malaria prevention. The normative documents of the Ministry of Health of Ukraine regulating the procedure of laboratory examination for malaria, hospitalization, treatment of patients, preventive measures.

Topic 14. Tick-borne encephalitis, Lyme disease . Outbreaks of Epidemic typhus and Brilli-Zinsser's disease . West Nile fever.

Tick-borne encephalitis: etiology, epidemiology, classification, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, prognosis. Principles of treatment, medical care at the the pre-hospital stage. The procedure of hospitalization, rules of discharge of patients from the hospital. Preventive measures. Principles of immunoprophylaxis.

Lyme disease: etiology, epidemiology, classification, pathogenesis, clinic, laboratory diagnostics, differential diagnosis, complications, prognosis Principles of treatment, medical care at the pre-hospital phase. Indications for hospitalization. Preventive measures.

General characteristics of rickettsioses .

Epidemic typhus and Brill disease : etiology, epidemiology, classification, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, prognosis. Principles of treatment, medical care for patients at the pre-hospital stage. Indications for hospitalization, rules of discharge of patients from the infectious hospital. Preventive measures.

Marseilles fever, West Nile fever: etiology, epidemiology, classification, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, prognosis. Principles of treatment, medical care for patients at the pre-hospital stage. Indications for hospitalization, rules of discharge from the hospital. Prevention.

Content module 5. Infectious diseases with predominance of contact and multiple mechanisms of transmission.

Specific goals:

- To analyze epidemiological, pathogenetic and clinical features of infectious diseases with wound mechanism of transmission.
- To demonstrate skills of clinical and laboratory diagnosis of infectious diseases with wound mechanism of transmission and their complications.
- To perform differential diagnosis of the most common infectious diseases with wound mechanism of transmission.
- To diagnose medical emergencies in infectious diseases with a wound mechanism of transmission .
- To prescribe the rational treatment of patients with infectious diseases with a wound mechanism of transmission at different stages of medical care.
- To determine the tactics of hospitalization and isolation of patients with infectious diseases with wound mechanism of transmission.
- To determine therapeutic tactics in case of complications or medical emergencies in infectious diseases with wound mechanism of transmission at the the pre-hospital stage.
- To plan the main preventative measures for infectious diseases with wound mechanism of transmission.
- To predict the consequences of infectious diseases with wound mechanism of transmission.
- To analyze epidemiological, pathogenetic and clinical features of infectious diseases with multiple mechanism of transmission.
- To demonstrate skills of clinical and laboratory diagnosis of infectious diseases with multiple mechanism of transmission s and their complications.
- To make a preliminary clinical diagnosis, to plan preventive and quarantine measures for highly infectious diseases;
- To perform differential diagnosis of the most common infectious diseases with multiple mechanism of transmission.
- To diagnose medical emergencies in infectious diseases with multiple mechanism of transmission s.

- To prescribe rational treatment of patients with infectious diseases with multiple mechanisms of transmission at different stages of medical care.
- To determine the tactics of hospitalization and isolation of patients with infectious diseases with multiple mechanism of transmission.
- To determine therapeutic tactics in case of complications or medical emergencies in infectious diseases with multiple mechanism of transmission at the the pre-hospital stage.
- To plan major preventive measures for infectious diseases with multiple mechanism of transmission.
- To predict the consequences of infectious diseases with multiple mechanism of transmission.
- To demonstrate awareness of infectious diseases as a weapon of mass destruction.

Topic 15. Infectious diseases with predominant kidney damage: leptospirosis, hemorrhagic fever with renal syndrome. Crimea-Congo hemorrhagic fever. Prolonged fever of unknown genesis. Diagnostic algorithm. Brucellosis. Sepsis.

Leptospirosis: etiology, epidemiology, classification, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, prognosis. Principles of treatment, medical care for patients in the the pre-hospital stage, therapeutic tactics in case of medical emergencies . The procedure of hospitalization, rules of discharge of patients from the hospital. Preventive measures.

HFRS: etiology, epidemiology, classification, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, prognosis Principles of treatment, medical care for patients in the the pre-hospital stage, therapeutic tactics in case of emergency conditions. Hospitalization, hospital discharge rules. Preventive measures.

Congo-Crimea hemorrhagic fever: etiology, epidemiology, classification, pathogenesis, clinical course, laboratory diagnostics, differential diagnosis, complications, prognosis. Principles of treatment and prevention. Medical care for patients on the pre-hospital stage, medical tactics in case of medical emergencies . The procedure of hospitalization, rules of discharge of patients from the hospital.

The concept of prolonged fever of unknown genesis. The algorithm of examination of patients. Principles of medical care.

Brucellosis: etiology, epidemiology, classification, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, prognosis. Principles of treatment and prevention. Medical care for patients at the pre-hospital stage. Indications for hospitalization, rules of discharge of patients from the hospital.

Sepsis: modern ideas about pathogenesis, classification, clinical course, examination procedure, laboratory diagnosis, differential diagnosis, complications, prognosis. Principles of treatment and prevention. Medical care for patients at the pre-hospital stage, medical tactics in case of medical emergencies. The procedure of hospitalization, rules of discharge of patients from the hospital.

Topic 16. Infectious diseases with the predominant contact mechanism of transmission: rabies, tetanus, erysipelas, felinosis. Anthrax. Tularemia.

Rabies: etiology, epidemiology, classification, pathogenesis, clinical course, diagnosis, differential diagnosis, prognosis. Principles of treatment, medical care for patients at the pre-hospital stage, procedure of hospitalization. Principles of prevention.

Tetanus: etiology, epidemiology, classification, pathogenesis, clinical course, diagnosis, differential diagnosis, complications, prognosis. Principles of treatment, medical care for patients at the the pre-hospital stage, therapeutic tactics in case of medical emergencies . The procedure of hospitalization, rules of discharge of patients from the hospital. Principles of prevention.

Erysipelas: etiology, epidemiology, classification, pathogenesis, clinical course, diagnosis, differential diagnosis, complications, prognosis. Principles of treatment and prevention. Indications for hospitalization.

Felinosis: etiology, epidemiology, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, prognosis. Principles of treatment and prevention. Indications for hospitalization.

Anthrax: etiology, epidemiology, classification, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, prognosis. Principles of treatment and prevention. Medical care for patients at the pre-hospital stage, medical tactics in case of medical emergencies. The procedure of hospitalization, rules of discharge of patients from the hospital. Preventive measures.

Tularemia: etiology, epidemiology, classification, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, prognosis. Principles of treatment and prevention. Medical care for patients at the pre-hospital stage, medical tactics in case of medical emergencies. The procedure of hospitalization, rules of discharge of patients from the hospital. Preventive measures.

Topic 17 . Infectious diseases regulated by the International Health Regulations 2005 (plague, yellow fever, fever Marburg , Ebola , Lassa). The concept of biohazard and levels of biosafety.

Modern interpretation of the concepts of "quarantine" and "especially dangerous" diseases.

Plague: etiology, epidemiology, classification, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, prognosis. Principles of treatment and prevention. Medical care for patients at the pre-hospital stage, medical tactics in case of medical emergencies . The procedure of hospitalization, rules of discharge of patients from the hospital. Preventive measures.

Yellow fever: etiology, epidemiology, classification, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, prognosis. Principles of treatment and prevention (including immunoprophylaxis). Medical care for patients at the pre-hospital stage, medical tactics in case of medical emergencies . The procedure of hospitalization, rules of discharge of patients from the hospital.

Fever Marburg , Ebola , Lassa : etiology, epidemiology, classification, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, prognosis. Principles of treatment and prevention. Medical care for patients at the pre-hospital stage, medical tactics in case of medical emergencies . The procedure of hospitalization, rules of discharge of patients from the hospital.

Natural smallpox. Historical data. Topicality. Etiology, epidemiology, classification, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, prognosis. Principles of treatment and prevention. The victory over natural smallpox as a model of effective and successfully organized immunoprophylaxis.

Topic 18 . Final modul control

Control of theoretical and practical skills.

STRUCTURE OF THE DISCIPLINE «INFECTIOUS DISEASES»

Table 4

Names of modules and topics	Number of hours											
	Full-time						External form					
	total	including					to-tal	including				
		l	p	lab	ind	iw		l	p	lab	ind	iws
1	2	3	4	5	6	7	8	9	10	11	12	13
Module 1. Infectious diseases.												
Content module 1 . Introduction to infectology. Infectious diseases with predominance of fecal-oral mechanism of transmission.												
Topic 1. Typhoid fever. Paratyphoid fever (paratyphoid). Intestinal yersiniosis , pseudotuberculosis.			4			6	-	-	-	-	-	-
Topic 2. Diarrheal syndrome in the clinical picture of infectious diseases. The concept of enterotoxigenic and enteroinvasive diarrhea. Salmonellosis. Cholera. Emergency measures in case of dehydration shock. Viral infectious diseases with predominance of fecal-oral mechanism of transmission (enteroviral , including poliomyelitis, reoviral , rotaviral , Norfolk-viral infection).			4			6	-	-	-	-	-	-
Topic 3. Shigellosis . Amebiasis. Giardiasis. The concept of intestinal dysbiosis. Peculiarities of diagnostics, clinical course and treatment of diseases with fecal-oral mechanism of transmission in elderly and senile persons.			4			6	-	-	-	-	-	-
Topic 4. Botulism. Food poisoning. Nematodes (Pinworm infection, ascariasis, trichocephalosis, trichinosis, strongyloidosis). cestodes (teniasis, cysticercosis, tapeworm infection, hymenolepis, echinococcosis). Trematodes (opisthorchiasis).			4			6	-	-	-	-	-	-
Lecture 1. The concept of infectious process and infectious diseases. Classification of infectious diseases. Principles of diagnosis of infectious diseases. Prevention and immunoprophylaxis (specific, non-specific) of infectious diseases, principles of their application.		2										
Lecture 2. General characteristics of the group of diseases with fecal-oral mechanism of transmission . Salmonellosis.		2										
In total for Content Module 1.	44	4	16		2	24						

Content module 2. Infectious diseases with predominance of airborne mechanism of transmission.												
Topic 5. General characteristics of infectious diseases with predominance of airborne mechanism of transmission . Influenza. Features of new pandemic strains, Avian influenza . Other ARVI: parainfluenza, adenoviral infection, RS infection , rhinoviral infection. Infectious diseases with a clinical picture of atypical pneumonia: respiratory mycoplasmosis, ornithosis, legionellosis.			4			6	-	-	-	-	-	-
Topic 6. Meningococcal infection. Differential diagnosis of serous (including tuberculous) and purulent meningitis. Features of the clinical course, diagnosis, treatment of diseases with predominance of airborne mechanism of transmission in elderly and senile persons. Medical emergencies: edema and swelling of the brain, infectious-toxic shock.			4			6	-	-	-	-	-	-
Topic 7. "Childhood" airborne infections (measles, rubella, mumps) in adults. Diphtheria.			4			6	-	-	-	-	-	-
Topic 8. Herpesviral infection types 1-5 (herpes simple , chickenpox and herpes zoster , WEB- and cytomegaloviral -infection (infectious mononucleosis).			4			6	-	-	-	-	-	-
Lecture 3. General characteristics of the group of diseases with airborne mechanism of transmission . ARVI. Influenza.		2										
In total for Content Module 2.	42	2	16		1	24						
Content module 3. Infectious diseases with predominance of bloodborne mechanism of transmission (viral hepatitis, HIV).												
Topic 9. Viral hepatitis with fecal-oral mechanism of transmission . Viral hepatitis with bloodborne mechanism of transmission. The concept of the fulminant viral hepatitis.			4			6	-	-	-	-	-	-
Topic 10. Laboratory diagnosis and approaches to the treatment of viral hepatitis. Features of viral hepatitis C. Indications for liver transplantation. Features of the clinical course, diagnosis, treatment of viral hepatitis in elderly and senile persons.			4			6	-	-	-	-	-	-
Topic 11. HIV infection. Bioethical issues of examination of a patient for HIV infection. The concept of ART .			4			6	-	-	-	-	-	-
Topic 12. HIV-associated infections and invasions. Tuberculosis as an AIDS indication disease . TORCH infections. Toxoplasmosis.			4			6	-	-	-	-	-	-
Lecture 4. General characteristics of a group of diseases with bloodborne mechanism of		2					-	-	-	-	-	-

transmission . Viral hepatitis C. Viral hepatitis B, D.												
Lecture 5. HIV infection: basic concepts. HIV-associated infections and invasions.		2					-	-	-	-	-	-
In total for Content Module 3.	44	4	16		2	24	-	-	-	-	-	-
Content module 4. Vectorborne diseases.												
Topic13. Malaria. Pappataci fever (Phlebotomus fever). The concept of travel medicine. Tropical medicine.			4			6	-	-	-	-	-	-
Topic 14. Tick-borne encephalitis, Lyme disease . Outbreaks of Epidemic typhus fever and Brill-Zinsser's disease . West Nile fever.			4			6	-	-	-	-	-	-
In total for Content Module 4.	20		8		2	12						
Content module 5. Infectious diseases with predominance of contact and multiple mechanisms of transmission.												
Topic 15. Infectious diseases with predominant kidney damage: leptospirosis, hemorrhagic fever with renal syndrome. Crimea-Congo hemorrhagic fever. Prolonged fever of unknown origin. Diagnostic algorithm. Brucellosis. Sepsis.			4			6	-	-	-	-	-	-
Topic 16 . Infectious diseases with the predominant contact mechanism of transmission: rabies, tetanus, erysipelas, felinosis . Anthrax. Tularemia.			4			5	-	-	-	-	-	-
Topic 17 . Infectious diseases regulated by the International Health Regulations 2005 (plague, yellow fever, Marburg , Ebola , Lassa fever). The concept of biohazard and levels of biosafety.			4			5	-	-	-	-	-	-
14. Final module			2									
In total for Content Module 5.	30		14		2	16						
Total	180	10	70		100		-	-	-	-	-	-

III. Topics of lectures of the discipline "Infectious diseases"

Table 5

No	TOPIC	Number of hours
1.	*The concept of infectious process and infectious diseases. Classification of infectious diseases. Principles of diagnostics of infectious diseases. Prevention and immunoprophylaxis (specific, non-specific) of infectious diseases, principles of their application.*	2
2.	*General characteristics of the group of diseases with fecal-oral mechanism of transmission . Salmonellosis.*	2
3.	*General characteristics of the group of diseases with airborne mechanism of transmission . ARVI. Influenza.*	2
4.	*General characteristics of a group of diseases with bloodborne mechanism of transmission . Viral hepatitis C. Viral hepatitis B, D.*	2
5.	*HIV infection: basic concepts. HIV-associated infections and invasions.*	2
	TOTAL	***10***

Table 6

Thematic plan of practical classes of the discipline " Infectious diseases"

No	TOPIC	Number of hours
Content module 1 . Introduction to infectology . Infectious diseases with predominance of fecal-oral mechanism of transmission .		
1.	*Typhoid. Paratyphoid A and B.* *Intestinal yersiniosis , pseudotuberculosis.*	4
2.	*Diarrheal syndrome in the clinical picture of infectious diseases. The concept of enterotoxigenic and enteroinvasive diarrhea. Salmonellosis. Cholera.* *Emergency measures in case of dehydration shock.* *Viral infectious diseases with predominance of fecal-oral mechanism of transmission (enteroviral , including poliomyelitis, reoviral , rotaviral , Norfolk-viral infection).*	4
3.	*Shigellosis . Amebiasis. Giardiasis.* *The concept of intestinal dysbiosis. Peculirities of diagnostics, clinical course and treatment of diseases with fecal-oral mechanism of transmission in elderly and senile persons.*	4
4.	*Botulism. Food poisoning. Nematodes (Pinworm infection, ascariasis, trichocephalosis,* *trichinosis, strongyloidosis). cestodes (teniasis cysticercosis, tapeworm infection , hymenolepis , echinococcosis). Trematodes (opisthorchiasis).*	4
Content module 2. Infectious diseases with predominance of airborne mechanism of transmission .		
5 .	*General characteristics of infectious diseases with predominance of airborne mechanism of transmission . Influenza. Features of new pandemic strains, Avian influenza . Other ARVI: parainfluenza, adenoviral infection, RS infection, rhinoviral infection.*	4
6 .	*Meningococcal infection. Differential diagnosis of serous (including tuberculous) and purulent meningitis. Peculirities of the clinical course, diagnosis, treatment of diseases with predominance of airborne mechanism of transmission in elderly and senile persons. Medical emergensies: edema and swelling of the brain, infectious-toxic shock.*	4
7 .	*"Childhood" airborne infections (measles, rubella, mumps) in adults. Diphtheria.*	4
8.	*Herpesviral infection types 1-5 (herpes simple , chickenpox and herpes zoster , WEB- and cytomegaloviral -infection (infectious mononucleosis).*	4
Content module 3. Infectious diseases with predominance of bloodborne mechanism of transmission (viral hepatitis, HIV).		
9.	*Viral hepatitis with fecal-oral mechanism of transmission . Viral hepatitis with bloodborne mechanism of transmission . The concept of the fulminant viral hepatitis General characteristics of viral hepatitis.*	4
10 .	*Laboratory diagnostics and approaches to the treatment of viral hepatitis. Features of viral hepatitis C. Indications for liver transplantation. Features of the course, diagnosis, treatment of viral hepatitis in elderly and senile persons.*	4

11.	*HIV infection. Bioethical issues of examination of a patient for HIV infection. The concept of ART .*	4
12.	*HIV-associated infections and invasions. Tuberculosis as an AIDS indication disease . TORCH infections. Toxoplasmosis.*	4
Content module 4. *Vectorborne diseases.*		
13.	*Malaria. Pappataci fever (Phlebotomus fever). The concept of travel medicine. Tropical medicine.*	4
14.	*Tick-borne encephalitis, Lyme disease . Outbreaks of epidemic typhus and Brill-Zinsser's disease . West Nile fever.*	4
Content module 5. Infectious diseases with predominance of contact and multiple mechanisms of transmission.		
15.	*Infectious diseases with predominant kidney damage: leptospirosis, hemorrhagic fever with renal syndrome. Crimea-Congo hemorrhagic fever. Prolonged fever of unknownorigin . Diagnostic algorithm. Brucellosis. Sepsis*	4
16.	*Infectious diseases with the predominant contact mechanism of transmission: rabies, tetanus, erysipelas, felinosis . Anthrax. Tularemia.*	4
17.	*Infectious diseases regulated by the International Health Regulations 2005 (plague, yellow fever, fever Marburg , Ebola , Lassa). The concept of biohazard and levels of biosafety.*	4
18 .	***Final modul control:***	
	Practical training	***1***
	Theoretical training	***1***
	TOTAL	**70**

Table 7

IV. Topical plan of independent work of applicants for higher medical education in the discipline " Infectious diseases"

Number of / n	The name of the topic	Amount .h units
1.	*Preparation for the practical lesson: Typhoid fever. Paratyphoid A and B. Intestinal yersiniosis, pseudotuberculosis. Botulism.* *- Improving the skills of interpreting data of laboratory research methods: markers of dehydration, acidosis / alkalosis.* *- Improvement of skills of interpretation of data of specific diagnostics: microbiological examination of blood, urine, feces, bile; AR, IHAR, complement binding reaction, ELISA, NR (including biological probe), PCR.*	8

2.	*Preparation for the Practice: Diarrhea syndrome in the clinical picture of infectious diseases. The concept of enterotoxigenic and enteroinvasive diarrhea. Infectious diseases of viral etiology with predominance of fecal-oral mechanism of transmission (enteroviral , including poliomyelitis, reoviral , rotaviral , Norfolk-viral andeffection). Food Toxic Infections. Salmonellosis. Cholera. Emergency measures in case of dehydration shock. Shigellosis . Amebiasis. Giardiasis. The concept of intestinal dysbiosis . Features of diagnostics, clinical course and treatment of diseases with fecal-oral mechanism of transmission in elderly and senile persons.* *- Improve the skills of clinical determination of the degree of dehydration as recommended by WHO.* *- Improving the skills of interpretation data from laboratory research methods: markers of dehydration, acidosis / alkalosis.* *- Improvement of skills of interpretation of data of specific diagnostics: microbiological examination of blood, urine, feces, bile;ARA, IHAR, CBT, ELISA, IFA , PCR.*	8
3.	*Preparation for the practical training: Nematodoses (enterobiosis, ascariasis, trichocephalosis, trichinosis, strongyloidosis) Cestodes (teniasis / cysticercosis, beef tapeworm infection , hymenolepiasis , echinococcosis). Trematodoses (opisthorchiasis).* *- Improvement of skills of interpretation of data of laboratory methods of research: hemograms, microscopic examination of bile, excrement, radiological examinations.* *- Improvement of skills of interpretation of data of specific diagnostics: IHAR, CBT, ELISA, PCR.*	8
4.	*Preparation for the practical training: General characteristics of the group of infectious diseases with the predominance of airborne mechanism of transmission . Influenza. Features of new pandemic strains, Avian influenza . Other SARS: parainfluenza, adenoviral infection, PC infection , rhinoviral infection. Infectious diseases with the clinical picture of atypical pneumonia: respiratory mycoplasmosis , ornithosis, legionellosis . Meningococcal infection. Differential diagnosis of serous (including tuberculous) and purulent meningitis. Features of the clinical course, diagnosis, treatment of diseases with predominance of airborne mechanism of transmission in elderly and senile persons.* *- Improvement of clinical skills of definition of differences of exanthemas and enanthemas.* *- Improvement of the skills of interpretation of data of a hemogram, a liquogram .* *- Improvement of the skills of interpretation of data of specific methods of laboratory research in acute respiratory tract (RHAA , CBR, ELISA, IFA , IIFA, PCR).*	8
5.	*Preparation for the practical training: "Childhood" infections (measles, rubella, mumps) in adults. Diphtheria. Differential diagnosis with bacterial pharyngitis. Herpesviral infection types 1-5 (simple herpes , chickenpox and herpes zoster , EBV*	8

	and cytomegaloviral infection (infectious mononucleosis)). *- Improvement of the skills of interpretation of data of a hemogram, a liquogram .* *- Improvement of the skills of interpretation of data of specific methods of laboratory research in acute respiratory tract (RHAA , CBR, ELISA, IFA , IIFA, PCR).*	
6.	*Practical training: Viral hepatitis with fecal-oral transmission. Viral hepatitis with bloodborne mechanism of transmission . The concept of the fulminant course of viral hepatitis. Laboratory diagnostics and therapeutic tactics in viral hepatitis. Features of viral hepatitis C. Indications for liver transplantation. Features of the course, diagnosis, treatment of viral hepatitis in elderly and senile persons.* *- Improvement of the skills of interpretation of biochemical blood test data (markers of liver damage, protein and lipid spectra of blood) and coagulograms .* *- Improvement of the skills of interpretation of data of marker research of VG (ELISA, PCR) and degree of liver fibrosis.* *- Improving the skills of interpretation of ultrasound data of abdomen US.*	8
7.	*Preparation for the practical training: HIV infection. Bioethical issues of examination of a patient for HIV infection. The concept of ART .* *- Improving the skills of pre - test and post-test consulting for HIV infection.* *- Improvement of skills of interpretation of data of microbiological research of various biological fluids of an organism.* *- Improvement of the skills of interpretation of specific methods of laboratory research in HIV infection: ELISA, Western blotting , PCR.*	8
8.	*Practical training: HIV-associated infections and invasions. Tuberculosis as an AIDS indicatin disease. TORCH infections. Toxoplasmosis.* *- Improvement of skills of interpretation of data of microbiological research of various biological fluids of an organism.* *- Improvement of the skills of interpretation of data of specific methods of laboratory research in acute respiratory tract (RHAA , CBR, ELISA, IFA , IIFA, PCR).*	8
9.	*Practical Training: Malaria. Fever fever . The concept of travel medicine. Tropical medicine.* *- Improvement of the skills of interpretation of biochemical blood test data (markers of liver damage, protein and lipid spectra of blood) and coagulograms .* *- Improving the skills of interpretation of blood microscopy and ultrasound data.*	7
10.	*Preparation for the practical training: Tick-borne encephalitis, Lyme disease . Outbreaks of epidemic typhus and Brill-Zinsser's disease . West Nile fever.* *- Improvement of clinical skills of definition of differences of exanthems and enanthems.* *- Improvement of skills of interpretation of data of specific*	7

	methods of laboratory researches (CBR, ELISA, PCR).	
11.	*Preparation for the practical training: Infectious diseases with predominant kidney damage: leptospirosis, hemorrhagic fever with renal syndrome. Crimea-Congo hemorrhagic fever. Prolonged fever of unknown origin . Diagnostic algorithm. Brucellosis. Sepsis.* *- Improvement of clinical skills of interpretation of results of crop crops of different biological fluids.* *- Improving the skills of interpretation of specific methods of laboratory research: ELISA, PCR.*	8
12.	*Preparation for the practical training: Infectious diseases with a predominant contact mechanism of transmission: rabies, tetanus, erysipelas, felinosis . Anthrax. Tularemia.* *- Improvement of skills of interpretation of data of microbiological research of various biological fluids of an organism.* *- Improving the skills of interpretation of serological data, including biological probe, and microbiological research methods.*	7
13.	*Preparation for the Practice: Infectious diseases regulated by the International Health Regulations 2005 (plague, yellow fever, fever Marburg , Ebola , Lassa). Concepts of biohazard and levels of biosafety .* *- Improvement of skills of interpretation of data of microbiological research of various biological fluids of an organism.* *- Improvement of skills of interpretation of abdomen ultrasound and other instrumental data (radiography, CT , MRI).*	7
Total		100

VII . TEACHING METHODS

Among the teaching methods in the study of the discipline «Infectious Diseases», depending on the stage of the stadying process the method of preparation for the study of new material and study of new material, its fixation in the form of questions for self-control, as well as a method of explaining the teacher in the form of direct guidance, where can be used explanatory, illustrative, reproductive, partially exploratory, research methods, and self-directed work where teacher guidance is indirect are used.

VIII . CONTROL METHODS

Among the basic methods of control in practical classes after self-study of new material for its consolidation are used tasks in the form of control exercises with their assessment (primary, current, border), which depending on the form of conduction can be: oral questioning (both individual and frontal), or written, or with the help of computer programms, or test, or practical control. Contemporary technologies may include situational modeling (role-playing, games, etc.) or algorithmic / standardization technologies. Interactive methods can include: the method of analysis of specific, problematic situations; method of group discussion; method of competing groups etc.

At the department, **the assessment of the applicant for higher medical education for work in the classroom is complex**, with the use of "four-point" system and includes theoretical knowledge, work with patients, practical skills.

Excellent - the applicant for higher medical education has deeply and steadily mastered the program material; exhaustively, consistently, competently and logically stadyes it. Answers closely relate theory to practice; freely reads results of analyzes and instrumental research and solves situational tasks of increased complexity; properly acquainted with the basic literature and methods of research of the patient in the volume necessary for practical activity of the doctor; demonstrates the ability to relate theoretical aspects of the subject to practical health care.

Good - the applicant for higher medical education properly knows the program material, is competent and essentially stadyes it; has no significant inaccuracies in the answers to the questions; correctly applies theoretical provisions in solving practical tasks; has the necessary skills and techniques for their implementation; is able to solve light and medium difficulty situational tasks; possesses laboratory and clinical research methods in excess of the required minimum; is able on the basis of the specific content of the answer to show sufficiently logical thinking.

Satisfactory - the applicant for higher medical education knows only the basic material, but has not mastered it in detail, has inaccuracies, insufficiently correct wording, violation of the sequence in the coverage of program material. The applicant for higher medical education is only able to solve the most light tasks, have only a mandatory minimum of research methods; insufficient knowledge of methodology, poor knowledge of basic principles of deontology.

Unsatisfactory - the applicant for higher medical education does not know much of the program material, makes significant mistakes, is not sure, performs practical work with great difficulty.

After completing the full course of the provided program (all classes completed and a academic medical history is defended, etc.), the applicant for higher medical education can not be approved to the final module control without appropriate knowledge and skills. The future physician should be erudite and cultured, have high moral qualities, be merciful and compassionate, constantly follow the rules of medical ethics and deontology.

Independent work of applicants for higher medical education, which is provided in the subject along with the classroom, is evaluated during the ongoing control of the topic in the relevant lesson. The assimilation of topics that are presented only for independent work is controlled during the exam.

Individual work in the form of writing a scheme of differential diagnosis of infectious exanthema and algorithm for examination of a patient with prolonged fever is performed by the applicants for higher medical education during the study of topics. Applicants for higher medical education can rework the missed topics with the teacher during their consultations (individual work with the applicants for higher medical education) no more than 3 times during the study of the discipline, thereby scoring at least a minimum to be admitted to the total modular control.

IX. POINTS CALCULATION SCHEME

Mark in the discipline «Infectious Diseases», that is presented by one module, is rating and is defined as the sum of the marks for current educational activity (in points), which is exposed at each practical lesson on the relevant topic, a point mark for the performance of individual work by an applicant for higher medical education and the mark for the final module control (in points), which is given when evaluating theoretical knowledge and practical skills in accordance with the lists defined by the discipline program.

The current educational activity of applicants for higher medical education is evaluated on a 4-point (traditional) scale, using the criteria of assessment for the discipline «Infectious diseases» approved by the cycle methodical committee on therapeutic disciplines. This takes into account all types of work provided by methodical development for the planned topic.

Current control is carried out at each practical training according to the specific objectives of the topic and includes standardized forms of control of theoretical training and control of professional skills. Current control includes assessment of the initial level of knowledge (oral or written express survey, test control using test tasks of format A), assessment of the main stage of the practical training (control of professional skills during patients curation, solving typical situational tasks), assessment of the final level of knowledge at the lessons (solving level III situational tasks, interpretation of laboratory and other methods of patient examination).

Evaluation of current educational activities.

During the assessment of mastering of each topic for the current educational activity, the applicants for higher medical education are given grades on a 4-point (traditional) scale, taking into account the approved evaluation criteria for the respective discipline. This takes into account all types of work provided by the curriculum. Applicants for higher medical education should receive a grade on each topic. Forms of assessment of current learning activities should be standardized and include control of theoretical and practical training. Traded scores are converted into points. The maximum number of points that an applicants for higher medical education can receive for their current educational activity in the study of discipline is 200 points. The minimum number of points that an applicants for higher medical education must receive for their current educational activities to enroll in the discipline is 120 points.

Assessment of success in the discipline is given only to those applicants for higher medical education who have attended all the lessons in the discipline. The mark obtained by the applicants for higher medical education from the discipline is defined as the arithmetic mean of all the lessons of the discipline (by the formula given). The objectivity of evaluating the stadying activities of applicants must be verified by statistical methods (the correlation coefficient between current performance and the results of final control). The maximum number of points that a applicants for higher medical education can receive in the current semester to be approved to final control is 120 points. The minimum number of points that applicants for higher medical education must receive for the current academic activity per semester is 72 points.

The calculation of the number of points is made on the basis of the scores obtained by the applicant on the traditional scale during the study of the discipline, by calculating the arithmetic mean (CA), rounded to two decimal places. The resulting value is converted to scores on a multi-scale as follows:

$$\frac{x = CA \times 120}{5}$$

For convenience, the table is calculated on a 200-point scale:

Recalculation of the average score for current activity into a multi-scale for disciplines finishing with the differential module.

Table 8

4 - point scale	**200 - point scale**								
5	120	4.54	109	4.08	98	3.62	87	3.2	77
4.95	119	4.5	108	4.04	97	3.58	86	3.16	76
4.91	118	4.45	107	3.99	96	3.54	85	3.15	
4.87	117	4.41	106	3.95	95	3.49	84	3.12	75
4.83	116	4.37	105	3.91	94	3.45	83	3.1	
4.8	115	4.33	104	3.87	93	3.41	82	3.08	74
4.75	114	4.29	103	3.83	92	3.37	81	3.04	73
4.7	113	4.25	102	3.79	91	3.33	80	3	72
4.66	112	4.2	101	3.74	90	3.29	79	Less 3	not enough
4.62	111	4.16	100	3.7	89	3.25	78		
4.58	**110**	**4.12**	**99**	**3.66**	**88**	**3.22**			

Independent work of applicants, which is provided in the subject along with the classroom, is evaluated during the current control of the topic in the relevant lesson.

The maximum amount of points that an applicants for higher medical education can obtain during studying the module is 200 points, including for the current educational activity - 72 to 120 points, according to the results of the final module control – 48 to 80 points.

The minimum amount of points that an applicants for higher medical education must earn for their current stadying activities when studying a module is 72 points and is determined by multiplying the number of topics of the module by the equivalent score for a "satisfactory" rating by the given formula.

The applicants for higher medical education must rework missing topics or unsatisfactory mark on a positive grade with the teacher during consultations (individual work with the applicants for higher medical education) no more than 3 times during the module study, thereby obtain at least a minimal mark to be approved to the final modul control.

CRITERIA FOR EVALUATION OF STADYING ACHIEVEMENTS

The mark for the discipline that finishes with the differentiated credit is defined as the sum of points for current educational activity (not less than 72) and points for exam (not less than 48). The points for the course are independently converted to both ECTS and 4-point scales. ECTS points are not converted to the 4-point scale and vice versa.

Discipline points for applicants who have successfully completed the program are converted to the traditional 4-point scale by the absolute criteria given in the table below:

Table 9

Scores on discipline	Score on a four-point scale
180 to200 points	«5» (excellent)
150 to 179 poionts	«4» (good)
120 to 149 points	«3» (satisfactory)
lower than the minimum number of points that the applicants for higher medical education must obtain for a discipline	«2» (unsatisfactory)

COMPLIANCE WITH THE CODE OF ACADEMIC INTEGRITY

During the study of the discipline, students of the second educational and scientific level in medicine must adhere to the Code of Academic Integrity of Kharkiv National University named after V.N. Karazina. For this purpose of performance of independent work, control works, work on offset has to be carried out individually. When doing independent work, applicants can consult with teachers and other applicants, but must do the task themselves, guided by their own knowledge, skills and abilities. References to all resources and resources used by the applicant in the performance of tasks must be clearly defined and designed in accordance with existing rules and standards. In the case of joint work with other applicants on the tasks, the applicant must indicate the degree of his involvement in the work.

LIST OF CONTROL QUESTIONS AND PRACTICAL SKILLS FOR CURRENT AND FINAL MODUL CONTROLS OF KNOWLEDGE AND APPLICANTS FOR HIGHER MEDICAL EDUCATION ABILITIES

Indicative list of questions to the final module control:

Content module 1. Introduction to infectology . Infectious diseases with predominance of fecal-oral mechanism of transmission\.

1. The concepts of "infection", "infectious process", "infectious disease". Features of infectious diseases.
2. The main stages of the development of infectology . Scientific contribution of domestic and foreign scientists to the study of infectious diseases.
3. History of the Department of General and clinical immunology and allergology of V.N.Karazin Kharov National University.
4. Classification of infectious diseases.
5. Principles of diagnostics of infectious diseases.
6. Methods of specific diagnostics of infectious diseases.
7. Preventive measures, principles of immunoprophylaxis of infectious diseases.
8. Principles of treatment of infectious diseases.
9. Structure and mode of work of the infectious hospital. Indications for hospitalization, rules of examination and discharge of patients from the infectious hospital. Features of medical records maintaining.
10. General characteristics of infectious diseases with fecal-oral mechanism of transmission .
11. Typhoid fever, paratyphoids A and B: etiology, epidemiology, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment, prevention. The procedure of hospitalization, rules for discharge of patients from the infectious hospital.
12. Cholera: etiology, epidemiology, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment, prevention. The procedure of hospitalization, rules for discharge of patients from the infectious hospital.
13. Dehydration shock: term definition, pathogenesis, clinical manifestations, differential diagnosis. Clinical and laboratory diagnostics of water-electrolyte disturbances at different degrees of dehydration. Emergency medical care.
14. Salmonellosis: etiology, epidemiology, classification, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment, prevention. The procedure of hospitalization, rules for discharge of patients from the infectious hospital.
15. Food toxic infection: etiology, epidemiology, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment, prevention. Indications for hospitalization, rules for discharge of patients from the infectious hospital.
16. Rotaviral infection: etiology, epidemiology, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment, prevention. Indications for hospitalization, rules for discharge of patients from the infectious hospital.
17. Enteroviral diseases: etiology, epidemiology, classification, pathogenesis, clinical course, laboratory diagnostics, differential diagnosis, complications, treatment, prevention. Indications for hospitalization, rules for discharge of patients from the infectious hospital.
18. Intestinal yersiniosis : etiology, epidemiology, classification, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment, prevention. The procedure of hospitalization, rules for discharge of patients from the infectious hospital.
19. Pseudotuberculosis: etiology, epidemiology, classification, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment, prevention. The procedure of hospitalization, rules for discharge of patients from the infectious hospital.

20. Shigellosis : etiology, epidemiology, classification, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment, prevention. The procedure of hospitalization, rules for discharge of patients from the infectious hospital.
21. Amebiasis: etiology, epidemiology, classification, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment, prevention. The procedure of hospitalization, rules for discharge of patients from the infectious hospital.
22. Giardiasis: etiology, epidemiology, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment, prevention.
23. Botulism: etiology, epidemiology, classification, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, prognosis, treatment, prevention. The procedure of hospitalization, rules of discharge of patients from the hospital.
24. Classification of helminthiasis. Effect of helminths on the human body. Methods of laboratory diagnosis of helminthiasis.
25. Askaridosis: etiology, epidemiology, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment, prevention.
26. Enterobiasis: etiology, epidemiology, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment, prevention.
27. Trichocephalosis: etiology, epidemiology, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment, prevention.
28. Ankylostomidosis : etiology, epidemiology, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment, prevention.
29. Strongiloidosis : etiology, epidemiology, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment, prevention.
30. Trichinosis: etiology, epidemiology, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment, prevention.
31. Dirofilariosis : etiology, epidemiology, pathogenesis, clinical course, laboratory diagnosis, complications, treatment, prevention.
32. Toxocariasis : etiology, epidemiology, pathogenesis, clinical course, laboratory diagnosis, complications, treatment, prevention.
33. Difilobotriosis : etiology, epidemiology, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment, prevention.
34. Teniarynchosis : etiology, epidemiology, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment, prevention.
35. Teniosis , cysticercosis: etiology, epidemiology, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment, prevention.
36. Hymenolepidosis : etiology, epidemiology, pathogenesis, clinical course, laboratory diagnostics, differential diagnosis, complications, treatment, prevention.
37. Echinococcosis: etiology, epidemiology, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment, prevention.
38. Alveococcosis : etiology, epidemiology, pathogenesis, clinical course, laboratory diagnosis, complications, treatment, prevention.
39. Opisthorchiasis : etiology, epidemiology, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment, prevention.

Content module 2. Infectious diseases with predominance of airborne mechanism of transmission.

40. General characteristics of infectious diseases of the respiratory tract.
41. Influenza: etiology, epidemiology, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment, anti-epidemic measures, principles of immunoprophylaxis. Indications for hospitalization.

42. Parainfluenza: etiology, epidemiology, pathogenesis, clinical course, laboratory diagnostics, differential diagnosis, complications, treatment, prevention. Indications for hospitalization.
43. Adenoviral infection: etiology, epidemiology, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment, prevention. Indications for hospitalization.
44. RS infection : etiology, epidemiology, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment, prevention. Indications for hospitalization.
45. Rhinoviral infection: etiology, epidemiology, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment, prevention. Indications for hospitalization.
46. Classification of human herpes viruses . General characteristics of herpesviral diseases.
47. Herpesviral infection: etiology, epidemiology, pathogenesis, classification, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment, prevention. Indications for hospitalization.
48. Chickenpox. Herpes zoster . Etiology, epidemiology, pathogenesis, clinical course, laboratory diagnostics, differential diagnosis, complications, treatment, prevention. Indications for hospitalization, rules of discharge of patients from the hospital.
49. Infectious mononucleosis: etiology, epidemiology, pathogenesis, classification, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment, prevention. Indications for hospitalization.
50. Features of the clinical course of herpesviral infections in patients with HIV / AIDS.
51. Measles: etiology, epidemiology, pathogenesis, classification, clinic, features of the course in adults, laboratory diagnosis, differential diagnosis, complications, treatment, anti-epidemic measures, principles of immunoprophylaxis. Indications for hospitalization, rules for discharge of patients from the infectious hospital.
52. Rubella: etiology, epidemiology, pathogenesis, classification, clinic, features of the course in adults, laboratory diagnosis, differential diagnosis, complications, treatment, anti-epidemic measures, principles of immunoprophylaxis. Indications for hospitalization, rules for discharge of patients from the infectious hospital.
53. Viral mumps disease: etiology, epidemiology, pathogenesis, classification, clinic, features of the course in adults, laboratory diagnosis, differential diagnosis, complications, treatment, anti-epidemic measures, principles of immunoprophylaxis. Indications for hospitalization, rules for discharge of patients from the infectious hospital.
54. Diphtheria: etiology, epidemiology, pathogenesis, classification, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment, principles of immunoprophylaxis. Hospitalization, rules for discharge from the infectious hospital.
55. Meningococcal infection: etiology, epidemiology, pathogenesis, classification, clinical course, laboratory diagnosis, differential diagnosis, complications, principles of treatment of various clinical forms, emergency care at the the pre-hospital stage, prevention. The procedure of hospitalization, rules for discharge of patients from the infectious hospital.
56. ITS: definition of the term, pathogenesis, classification, clinical and laboratory diagnostics, treatment principles, emergency care at the the pre-hospital stage.
57. SEB: definition of the term, pathogenesis, classification, clinical and laboratory diagnostics, treatment principles, emergency care at the the pre-hospital stage.
58. Respiratory mycoplasmosis : etiology, epidemiology, pathogenesis, classification, clinical course, laboratory diagnosis, differential diagnosis, complications, principles of treatment of various clinical forms, prevention. Indications for hospitalization.
59. Ornithosis: etiology, epidemiology, pathogenesis, classification, clinical course, laboratory diagnosis, differential diagnosis, complications, principles of treatment of various clinical forms, prevention. Indications for hospitalization.

60. Legionellosis : etiology, epidemiology, pathogenesis, classification, clinical course, laboratory diagnosis, differential diagnosis, complications, principles of treatment of various clinical forms, prevention. Indications for hospitalization.
61. Acute respiratory failure: concept definition, classification, pathogenesis, clinical and laboratory diagnostics, treatment principles, emergency care at the the pre-hospital stage.

Content module 3. Infectious diseases with predominance of bloodborne mechanism of transmission (viral hepatitis, HIV).

62. General characteristics of bloodborne infectious diseases.
63. VHA: etiology, epidemiology, pathogenesis, classification, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment principles, immunoprophylaxis. Indications for hospitalization, rules of discharge of patients from the hospital.
64. VHE: etiology, epidemiology, pathogenesis, classification, clinical course, laboratory diagnostics, differential diagnosis, complications, treatment principles, prevention. Indications for hospitalization, rules for discharge of patients from the infectious hospital.
65. VHB: etiology, epidemiology, pathogenesis, classification, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment principles, anti-epidemic measures, principles of immunoprophylaxis, prognosis. Indications for hospitalization, rules for discharge of patients from the infectious hospital.
66. VHC: etiology, epidemiology, pathogenesis, classification, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment principles, prevention, prognosis. Indications for hospitalization, rules for discharge of patients from the infectious hospital.
67. VHD: etiology, epidemiology, pathogenesis, classification, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment principles, prevention, prognosis. Indications for hospitalization, rules for discharge of patients from the infectious hospital.
68. Differential diagnosis of jaundices.
69. Fulminant viral hepatitis: pathogenesis, clinical and laboratory diagnosis, treatment principles.
70. Chronic viral hepatitis: etiology, epidemiology, pathogenesis, classification, clinical course, laboratory diagnosis, differential diagnosis, principles of treatment, prognosis.
71. HIV infection: etiology, epidemiology, pathogenesis, classification, clinical course, laboratory diagnostics, differential diagnosis, complications, treatment principles, prevention, prognosis. The rules of hospitalization, routin and prophylactic medical examination.
72. AIDS-associated protozoal invasions: cryptosporidiosis , isosporosis , cerebral toxoplasmosis. Clinical and laboratory diagnostics. Principles of treatment and prevention. Indications for hospitalization.
73. AIDS-associated mycoses: candidiasis , pneumocystis pneumonia, cryptococcosis . Clinical and laboratory diagnostics. Principles of treatment and prevention. Indications for hospitalization.

Content module 4. Vector-borne diseases.

74. General characteristics of infectious diseases with vectorborne mechanism of transmission .
75. Malaria: etiology, epidemiology, pathogenesis, classification, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment, prevention. Indications for

examination for malaria. The procedure of hospitalization, rules for discharge of patients from the infectious hospital.

76. Leishmaniasis: etiology, epidemiology, pathogenesis, classification, clinical course, laboratory diagnosis, complications, principles of treatment and prevention. Indications for hospitalization.
77. Tick-borne encephalitis: etiology, epidemiology, classification, pathogenesis, clinical course, laboratory diagnosis, differential diagnosis, complications, prognosis, principles of treatment and prevention.
78. Lyme disease: etiology, epidemiology, classification, pathogenesis, clinic, laboratory diagnostics, differential diagnosis, complications, prognosis, principles of treatment and prevention.
79. Epidemic typhus and Brill disease : etiology, epidemiology, pathogenesis, classification, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment, prevention. The procedure of hospitalization, rules for discharge of patients from the infectious hospital.
80. Marseille fever: etiology, epidemiology, pathogenesis, classification, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment, prevention. The procedure of hospitalization, rules for discharge of patients from the infectious hospital.

Content module 5. Infectious diseases with predominance of contact and multiple mechanisms of transmission.

81. General characteristics of infectious diseases with wound mechanism of transmission .
82. Leptospirosis: etiology, epidemiology, pathogenesis, classification, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment, prevention. The procedure of hospitalization, rules for discharge of patients from the infectious hospital.
83. HFRS: etiology, epidemiology, pathogenesis, classification, clinical course, laboratory diagnosis, differential diagnosis, complications, treatment, prevention. The procedure of hospitalization, rules for discharge of patients from the infectious hospital.
84. Acute renal failure: definition of the term, pathogenesis, classification, clinical and laboratory diagnostics, treatment principles, emergency care at the the pre-hospital stage.
85. Rabies: etiology, epidemiology, classification, pathogenesis, clinical course, diagnosis, differential diagnosis, complications, prognosis, principles of treatment and immunoprophylaxis. The rules of hospitalization.
86. Tetanus: etiology, epidemiology, classification, pathogenesis, clinical course, diagnosis, differential diagnosis, complications, prognosis, principles of treatment and prevention. Principles of immunoprophylaxis. The order of hospitalization.
87. Erysipelas: etiology, epidemiology, classification, pathogenesis, clinical course, diagnosis, differential diagnosis, complications, prognosis, principles of treatment and prevention. Indications for hospitalization.
88. Felinosis : etiology, epidemiology, classification, pathogenesis, clinical course, diagnosis, differential diagnosis, complications, prognosis, principles of treatment and prevention. Indications for hospitalization.
89. Rat-bite disease: sodoku , streptobacillosis . Etiology, epidemiology, classification, pathogenesis, clinical course, diagnosis, complications, prognosis, principles of treatment and prevention. Indications for hospitalization.
90. Definitions of “spetial danger infections” and “quarantine” diseases.
91. General characteristics of infectious diseases with multiple mechanism of transmission.
92. Plague: etiology, epidemiology, pathogenesis, classification, clinical course, laboratory diagnosis, differential diagnosis, complications, prognosis, treatment, prevention. The procedure of hospitalization, rules for discharge of patients from the infectious hospital. Preventive measures in the focus of infection.

93. Antrax: etiology, epidemiology, pathogenesis, classification, clinical course, laboratory diagnosis, differential diagnosis, complications, prognosis, treatment, prevention. The procedure of hospitalization, rules for discharge of patients from the infectious hospital. Preventive measures in the focus of infection.
94. Tularemia: etiology, epidemiology, pathogenesis, classification, clinical course, laboratory diagnosis, differential diagnosis, complications, prognosis, treatment, prevention. The procedure of hospitalization, rules of discharge of patients from the infectious hospital. Preventive measures in the focus of infection.
95. Natural smallpox: etiology, epidemiology, pathogenesis, classification, clinical course, laboratory diagnosis, complications, prognosis, principles of treatment and prevention.
96. Yellow fever: etiology, epidemiology, pathogenesis, classification, clinical course, laboratory diagnosis, differential diagnosis, complications, prognosis, treatment, anti-epidemic measures, principles of immunoprophylaxis. The procedure of hospitalization, rules for discharge of patients from the infectious hospital.
97. Congo-Crimea hemorrhagic fever: etiology, epidemiology, pathogenesis, classification, clinical course, laboratory diagnosis, differential diagnosis, complications, prognosis, treatment, prevention. The procedure of hospitalization, rules for discharge of patients from the infectious hospital.
98. Marburg , Ebola , Lassa fever: etiology, epidemiology, pathogenesis, classification, clinical course, laboratory diagnosis, complications, prognosis, treatment, prevention. The procedure of hospitalization, rules for discharge of patients from the infectious hospital.
99. Brucellosis: etiology, epidemiology, pathogenesis, classification, clinical course, laboratory diagnosis, differential diagnosis, complications, prognosis, treatment, prevention. The procedure of hospitalization, rules for discharge of patients from the infectious hospital.
100. Sepsis: definition, pathogenesis, classification, clinical course, laboratory diagnosis, differential diagnosis, prognosis, principles of treatment and prevention. The procedure of hospitalization, rules of discharge of patients from the hospital.
101. The concept of prolonged fever of unknown origin . The algorithm of examination of patients.
102. The concept of TORCH infections: definition of the term, etiology, epidemiology, clinical and laboratory diagnostics, prognosis. Principles of examination, treatment and prevention.
103. Toxoplasmosis: etiology, epidemiology, pathogenesis, classification, clinical course, laboratory diagnosis, differential diagnosis, complications, prognosis, principles of treatment and prevention. Indications for hospitalization.
104. Nosocomial infections: general characteristics, features of clinical course, diagnosis, principles of treatment and prevention.
105. Anaphylactic shock: pathogenesis, classification, clinical manifestations, differential diagnosis, emergency care.
106. Serum disease: pathogenesis, clinical manifestations, differential diagnosis, emergency care.

List of professional skills

1. Be able to make the previous clinical diagnosis of the most common infectious diseases with airborne and fecal-oral mechanism of transmission.
2. Be able to recognize the complications and medical emergencies in patients with the most common infectious diseases with airborne and fecal-oral mechanism of transmission.
3. Be able to prescribe an plan of examination for patients with the most common infectious diseases with airborne and fecal-oral mechanism of transmission.
4. To carry out clinical and laboratory differential diagnosis of infectious diseases with airborne and fecal-oral mechanism of transmission.

5. To prescribe the rational treatment of patients with infectious diseases with airborne and fecal-oral mechanism of transmission at different stages of medical care.
6. Be able to provide immediate assistance to patients with infectious diseases with airborne and fecal-oral mechanism of transmission.
7. To plan the main preventive measures for infectious diseases with airborne and fecal-oral mechanism of transmission.
8. Be able to make the primary clinical diagnosis of acute viral hepatitis, bloodborne infections, infectious diseases with wound and multiple mechanisms of transmission.
9. Be able to recognize complications and medical emergencies in patients with acute viral hepatitis, bloodborne infections, infectious diseases with wound and multiple mechanisms of transmission.
10. Be able to prescribe a plan of examination for patients with acute viral hepatitis, bloodborne infections, infectious diseases with wound and multiple mechanism of transmission.
11. To carry out clinical and laboratory differential diagnosis of acute and chronic viral hepatitis, bloodborne infections, infectious diseases with wound and multiple mechanisms of transmission.
12. To prescribe rational treatment for patients with acute viral hepatitis, bloodborne infections, infectious diseases with wound and multiple mechanisms of transmission.
13. Be able to provide immediate assistance to patients with acute viral hepatitis, bloodborne infections, infectious diseases with wound and multiple mechanisms of transmission.
14. To plan the main preventive measures for viral hepatitis, bloodborne infections, infectious diseases with wound and multiple mechanisms of transmission.

IX. RECOMMENDED LEARNING SOURCES

MAIN

1. Infectious Diseases: textbook / O.A. Holubovska, M.A. Andreichyn, A.V. Shkurba et al. Medicine Publishing: 2018. –662p.
2. Infectious diseases: classification, diagnostic, schemes and treatment: study aid / M. Chemych, M. Andreychyn, N. Il'yina, V. Zakhlebayeva, I. Trotska. – Sumy State University, 2011. – 270 p.
3. HIV-infection: a tutorial for medical applicants for higher medical education / O.A. Golubovska, O.Gudzenko, I/ Shestakova Medicine Publishing: 2011. –288p.

Additional

1. Walter R. Wilson, Merle A. Sande. Current diagnosis and treatment in infectious diseases. - Mc Graw Hill, New-York, 2001. - 979 p.
2. Tropical infections : synopsis of lectures to lab. classes : handb. for stud. of higher med. schools / I. L. Dikiy et al. ; Nat. univ. of pharmacy. - Kharkiv : NUPH : Golden Pages, 2010. - 77 p.

Information resources

1. Textbooks and Tutorials.
2. Educational and methodical materials of the department.
3. Visual materials for practical classes (tables, diagrams, algorithms, stands, albums, etc.).
4. Educational portal of higher educationhttp://www.osvita.org.ua/.
5. AIDS Clinical Society: https://www.eacsociety.org/
6. Clinical Practice guidelines: https://www.journal-of-hepatology.eu/content/collection_cpg
7. Open educational platforms:
   - https://www.coursera.org/learn/bacterial-infections/
   - https://www.coursera.org/learn/aids-fear-hope/
   - https://www.coursera.org/learn/ebola-essentials-for-health-professionals/
   - https://www.coursera.org/course/parasitology

- https://www.khanacademy.org/science/health-and-medicine/infectious-diseases
- https://www.edx.org/course/lessons-ebola-preventing-next-pandemic-harvardx-ph557x
- https://www.khanacademy.org/science/health-and-medicine/infectious-diseases
- https://www.coursera.org/course/virology
- https://www.coursera.org/course/virology2
- https://www.coursera.org/learn/ebola-essentials-for-health-professionals/
- https://www.coursera.org/course/parasitology

8. Official site of the Ministry of Health of Ukraine: http://www.moz.gov.ua
9. WHO official site: http://www.who.int
10. Centers for Disease Control and Prevention (CDC) http://www.cdc.gov/
11. http://www.atlas-protozoa.com/
12. http://www.freebooks4doctors.com/