



MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN  
FEDERATION  
Federal state autonomous educational institution  
of higher education  
**«Far Eastern Federal University»**  
(FEFU)

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**SCHOOL OF BIOMEDICINE**

«AGREED»

Head of education program  
«General medicine»

Khotimchenko Yu.S.

(signature)

(Full name)

«09» of July 2019

«APPROVED»

Director of the Department of Clinical  
Medicine

Geltser B.I.

(signature)

(Full name)

«09» of July 2019



**WORKING PROGRAM OF ACADEMIC DISCIPLINE (WPAD)**

**«Infectious Diseases»**

Education program

Specialty 31.05.01 «General medicine»

**Form of study: full time**

year 5 , semester 9, A  
lectures 36 hours  
practical classes 108 hours  
laboratory works not provided  
total amount of in-classroom works 144 hours  
independent self-work 72 hours  
including preparation to exam 27 hours  
control works ()  
pass-fail exam year 5, semester 9  
exam year 5, semester A

The working program is drawn up in accordance with the requirements of the Federal state educational standard of higher education (level of training), approved by the order of the Ministry of education and science of the Russian Federation from 09.02.2016 № 95.

The working program of the discipline was discussed at the meeting of the Department of fundamental and clinical medicine. Protocol No. 8, 09 of July 2019

Authors: PhD Borovskaya N.A.

## **Annotation to the Work Program for the subject “Infectious Diseases”**

The discipline "Infectious diseases" is intended for students, enrolled in educational program 31.05.01 "Medical care», included in the basic part of the curriculum. Discipline is implemented on a 5 course, 9,10 semester.

In the development of the working program of the discipline used Federal state educational standard higher education in specialty 31.05.01 "General Medicine", educational the plan of training of specialists in the specialty 31.05.01 " General Medicine".

The total complexity of the development of the discipline is 6 credits units, 216 hours. The curriculum provides 36 hours of lectures, 108 hours of practical training and independent work of the student (45 hours.).

When studying this discipline, students form the skills of clinical and laboratory-instrumental diagnostics, treatment of the main infectious and parasitic diseases, emergency care in life-threatening conditions caused by infectious diseases, the organization of preventive and anti-epidemic measures in the focus of infectious disease.

**The goal of the discipline** is the formation of professional competences in the field of knowledge in general and private infectiology, the ability to apply this knowledge for the diagnosis, treatment and prevention of infectious diseases.

**The aim of the discipline** is to give students the theoretical foundations of knowledge in the field of Infectious Diseases, such as:

- the implementation of dispensary observation of patients;
- diagnosis of infectious diseases based on clinical and laboratory and instrumental methods of research;
- diagnosis of emergency conditions in infectious diseases; in medical activities:
- treatment of infectious diseases using therapeutic methods;

- rendering medical assistance in case of emergency conditions that developed in infectious diseases;
- carrying out medical-evacuation measures and rendering medical assistance to the population in extreme conditions of epidemics.
- carrying out rehabilitation activities among the population who have had an infectious disease;
- maintenance of accounting and reporting medical records filled in for an infectious patient;
- analysis of scientific literature and official statistical reviews;
- preparation of essays on modern scientific problems of infectious diseases.

For successful study of course " Infectious Diseases " following preliminary competences (part of competence) must be formed:

- the readiness for medical use of drugs and other medical substances and their combinations in solving professional problems GPC – 8)
- the readiness to collect and to analyze patient complaints, data of its history , the results of laboratory, instrumental postmortem and other examinations in order to recognize the incidence or the absence of diseases (PC – 5)
- the ability of determining the patient's basic pathological conditions , symptoms , syndromes, diseases in accordance with the International Statistical Classification of Diseases and problems related to health , the 10th review. (PC – 6)
- the ability to determining the tactics of patient surveillance with different nosological entities. (PC – 8)
- the willingness to deliver medical first aid in case of sudden acute diseases and conditions, exacerbation of a chronic disease , which are not life-threatening and do not require emergency medical assistance (PC – 10)

On completion of the course following general professional and special professional competences are expected be formed:

<b>Competence code and formulation</b>	<b>Stages of forming the competence</b>	
<p>GPC-8</p> <p>- the readiness for medical use of drugs and other medical substances and their combinations in solving professional problems</p>	Knows	<p>the classification and main characteristics of drugs, pharmacodynamics and pharmacokinetics, indications and contraindications to the use of drugs, side effects;</p> <p>general principles of receptor design and formulation of prescription medicinal formulations.</p>
	Is able to	<p>to analyze the effect of drugs on the basis of their pharmacological properties and the possibility of their using for therapeutic treatment;</p> <p>write prescriptions for medicines, use different medicines, apply basic antibacterial, antiviral and biological preparations;</p> <p>evaluate the possible manifestations of overdose of drugs and how to eliminate them; substantiate the principles of pathogenetic therapy of the most common diseases.</p>
	Possesses	<p>skills in the use of drugs in the treatment, rehabilitation and prevention of various diseases and pathological conditions.</p>
<p>PC-5</p> <p>the readiness to collect and to analyze patient complaints, data of its history, the results of laboratory, instrumental postmortem and other examinations in order to recognize the incidence or the absence of diseases</p>	Knows	<p>the etiology, diagnosis, treatment and prevention of infectious diseases;</p> <p>the clinical signs, features of the course and possible complications of infectious diseases occurring in typical form;</p> <p>modern methods of clinical instrumental diagnosis of patients infection profile;</p> <p>features of the collection of pathological materials; precautions; special clothing;</p> <p>basic principles of diagnosis, treatment and rehabilitation of infectious diseases, indications for hospitalization with infectious diseases;</p> <p>principles of follow-up observation, rehabilitation of infectious patients;</p> <p>implementation of specific and nonspecific prevention of infectious diseases.</p>
	Is able to	<p>participate in the organization and provision of medical - preventive and sanitary anti-epidemic, prophylactic and rehabilitation assistance to the population with infectious diseases;</p> <p>interpret the results of the survey, make a preliminary diagnosis, outline the scope of additional studies to clarify the diagnosis;</p>

		<p>formulate a clinical diagnosis; develop a treatment plan taking into account the course of the disease, select and appoint drug therapy, use methods of non-drug treatment, to conduct rehabilitation measures.</p>
	Possesses	<p>the interpretation of the results of laboratory, instrumental methods of diagnosis with infectious disease; algorithm for making a preliminary diagnosis with the subsequent direction to additional examination and to specialist doctors; an algorithm for making a comprehensive clinical diagnosis of patients; the algorithm for the implementation of the main medical diagnostic and therapeutic measures to provide first medical aid in emergency and life-threatening conditions for infectious diseases.</p>
<p>PC-6 the ability of determining the patient's basic pathological conditions , symptoms,syndromes, diseases in accordance with the International Statistical Classification of Diseases and problems related to health , the 10th review.</p>	Knows	<p>the clinical signs, features of the course and possible complications of the most common infectious diseases; modern classification of infectious diseases; criteria for the diagnosis of infectious diseases.</p>
	Is able to	<p>determine the patients basic pathological conditions, symptoms, syndromes, diseases, nosologic forms; formulate a topical diagnosis; to make preliminary and final diagnoses with a reflection of the etiology, course, nature and degree of dysfunction; outline the scope of additional studies to clarify the diagnosis and obtain a reliable result.</p>
	Possesses	<p>basic skills of algorithm of the developed clinical diagnosis.</p>
<p>PC-8 the ability to determining the tactics of patient surveillance with different nosological entities</p>	Knows	<p>methods of treating patients with infectious diseases; the mechanism of action of the main groups of drugs; medical indications and contraindications to their use; complications caused by their use.</p>
	Is able to	<p>develop a plan of therapeutic measures for various infectious diseases; select an individual type of care for the patient in accordance with the situation: primary care, ambulance, hospitalization; formulate indications for the chosen method of treatment, taking into account etiotropic and pathogenetic means, to justify pharmacotherapy in a particular patient with the main pathological syndromes, to determine the route of administration,</p>

		the regimen and dose of drugs carry out the appointment of drug therapy for children, taking into account the clinical picture of the disease.
	Possesses	the tactics of managing patients with various nosological forms.
PC-10 the willingness to deliver medical first aid in case of sudden acute diseases and conditions, exacerbation of a chronic disease, which are not life-threatening and do not require emergency medical assistance	Knows	methods of treating patients with infectious diseases; the mechanism of action of the main groups of drugs; medical indications and contraindications to their use; complications caused by their use.
	Is able to	select an individual type of care for the patient in accordance with the situation: primary care, ambulance, hospitalization; formulate indications for the chosen method of treatment, taking into account etiologic and pathogenetic means, to justify pharmacotherapy in a particular patient with the main pathological syndromes, to determine the route of administration, the regimen and dose of drugs carry out the appointment of drug therapy for children, taking into account the clinical picture of the disease.
	Possesses	skills the willingness to manage and treat patients with various nosological forms.

## **I. STRUCTURE AND CONTENT OF THE THEORETICAL PART OF THE COURSE (36 hours)**

### **Semester 9**

#### **Module 1 General issues of infectious diseases. (2 hours)**

##### **The theme 1 The subject and content of the discipline "infectious diseases", its place in human pathology (2 hours)**

Introduction to the problem of infectious diseases. The place of infectology in human pathology and the health care system. The study of the general pathology of infectious diseases. Principles of diagnosis of infectious diseases. Principles of treatment of infectious patients. Rehabilitation and clinical examination. Principles of prevention of infectious diseases. Organization of

infectious services. KIZ. Indications and organization of hospitalization of infectious patients. The device and mode of an infectious diseases hospital.

**Module 2 Particular issues of infectious diseases. (28 hours)**

**The theme 2 Typhoid and paratyphoid fever. Salmonellosis. (2 hours)**

Typhoid and paratyphoid fever. Etiology: the main properties of the pathogen, its antigenic structure. Epidemiology: sources of infection, infection mechanisms, pathways and transmission factors. The value of chronic carrier state. Epidemics and sporadic cases. Pathogenesis and pathological anatomy: introduction of the pathogen and reproduction in lymph nodes, bacteremia and toxemia. Pathogenesis of recurrence and complications. The cyclical course of typhoid fever, the clinical characteristics of the stages of the disease. Features of the current course of typhoid fever. Diagnostics. Clinical and epidemiological criteria. Laboratory diagnosis: bacteriological and serological methods. Differential diagnosis with febrile conditions. Treatment. Mode, care, diet therapy.

Salmonellosis. Definition Causative agents of salmonellosis, principles of classification. The mechanism of infection. Pathways and transmission factors. Immunity and susceptibility. Pathogenesis and pathological anatomy. Clinic. Clinical classification. Periods of the disease. Clinical features of localized and generalized forms. Bacteria carrier. Complications. Forecast. Clinical and laboratory diagnostics, the role of epidemiological history. Differential diagnosis. Treatment. Intensive care methods. Comprehensive prevention.

**The theme 3 Shigellosis. Botulism. Food toxicoinfection. Yersiniosis (2 hours)**

Shigellosis. The main properties of the pathogen. Modern classification. Spread. Epidemiology of dysentery. Clinic. The main periods of the disease. The most important syndromes in the clinic of dysentery. Classification and characterization of clinical forms. Bacteria carrier. Complications of dysentery.

Forecast. Diagnostics. Treatment. Rules of discharge from the hospital. Prevention. Dispensary observation.

Yersinia infection. Definition, classification. Basic information about the pathogen reservoir in nature. Mechanisms of infection and ways of spreading infection. Classification of forms of the disease. Characteristics of the main clinical periods of the disease. Complications and relapses. Forecast. Diagnostics. The value of clinical and epidemiological data. Laboratory diagnostic methods. Differential diagnosis. Etiotropic therapy, choice of drug, dose, duration of treatment. Pathogenetic and symptomatic therapy. Prevention.

Botulism. Definition Characteristics of the main properties of the pathogen. Toxin formation. Resistance of the pathogen and toxins in the environment. Sources of infection and botulism transmission factors. The mechanism of action of the toxin. Pathological changes in the internal organs. Clinic. Early manifestations. Detailed clinical picture. Diagnostics. Clinical and epidemiological criteria. Laboratory diagnosis. Biological sample. Differential diagnosis. Treatment. Prevention.

#### **The theme 4 Cholera. Plague. Tuleryamiya. (2 hours)**

Cholera. Definition Characteristic of *Vibrio cholerae*. Nag vibrios. Epidemiology. Sources of infection, infection mechanisms, pathways, transmission factors. Modern features of the spread of cholera. Pathological anatomy and pathogenesis. The mechanism of action of exotoxin. Classification of the clinical forms of cholera. Clinical and epidemiological criteria. Laboratory diagnosis. Express diagnostics. Differential diagnosis. Principles of pathogenetic therapy. Intensive therapy. Antibacterial therapy. Discharge rules Complex preventive measures.

Plague. Historical information. The current epidemiological situation. Plague - quarantine infection. The most important morphological and cultural properties of the pathogen. Mechanisms of infection and ways of spreading infection. Pathogenesis and pathological anatomy. Phases of pathogenesis,



pathological changes in organs and tissues. Clinical classification of the plague. The periods of the disease, their clinical characteristics. Complications. Laboratory diagnosis, rapid diagnosis of plague. Treatment. Etiotropic therapy in various forms of plague. Pathogenetic therapy, symptomatic therapy. Rules of discharge from the hospital. Prevention.

**The theme 5 Viral hepatitis A and E (enteral hepatitis) (2 hours)**

Viral hepatitis A. Definition. Background Prevalence. Etiology. Epidemiology. Pathogenesis. Patanatomy. Clinic. Complications. Diagnostics. Differential diagnosis. Treatment. Forecast. Prevention. Vaccination.

Viral hepatitis E. Definition. Prevalence. Features of epidemiology Etiology. Pathogenesis. Patanatomy. Clinic. Complications. The role of hepatitis E virus in pregnant women. Diagnostics. Differential diagnosis. Forecast. Prevention.

**The theme 6. Viral hepatitis B, C, D (parenteral hepatitis) (2 hours).**

Viral hepatitis B. Etiology. Epidemiology. Clinical manifestations.

Clinical laboratory syndromes. Outcomes and prognosis of acute HBV. Treatment. Principles and methods of emergency treatment of acute liver failure. Prevention. Vaccination schedule.

Viral hepatitis D. Features of its existence, clinic, complications.

Viral hepatitis C. Epidemiology. Pathogenesis. Clinic. Laboratory diagnosis. Modern pathogenetic and antiviral therapy. Prevention. Clinical examination and prevention.

**The theme 7 Helminthiasis. (2 hours)**

Classification. Definition Background Prevalence. Etiology. Epidemiology. Pathogenesis. Patanatomy. Clinic. Complications. Diagnostics. Differential diagnosis. Treatment. Forecast. Prevention. Differential diagnosis. Anthelmintic therapy. Comprehensive treatment of trichinosis. Intensive therapy. Comprehensive prevention. Veterinary activities.

**The theme 8 Flu and SARS. (2 hours)**

Etiology, epidemiology, pathogenesis. Clinic and differential diagnosis, treatment and prevention of the disease. Complications. Indications for hospitalization. The mode of operation of the hospital. Quarantine activities. Specific and non-specific prevention. Vaccination.

**The theme 9 Meningococcal infection. Diphtheria. (2 hours)**

Meningococcal infection. Etiology. Epidemiology. Seasonality. Pathogenesis, pathological anatomy. The mechanism of development of infectious and toxic shock. Classification of forms of meningococcal infection. Meningitis clinic. Diagnostics. Etiotropic and pathogenetic therapy. Treatment of toxic shock, acute adrenal insufficiency. Prevention.

Diphtheria. Properties of the pathogen. Pathogenesis. Clinic. Diphtheria larynx (croup), stages of croup. Diphtheria nose. Rare localization of diphtheria. Complications of diphtheria in adults. Diagnostics. Laboratory research methods. Specific therapy. Pathogenetic therapy. Vaccine prevention.

**10 semester (18 hours)**

**The theme 10 Erysipelas. Tetanus. Rabies. (2 hours)**

Erysipelas Etiology. Epidemiology. Pathogenesis. Patanatomy. Classification. Clinic. Features of the course of erysipelas in pregnant women, patients with diabetes mellitus and thrombophlebitis. Complications are local and generalized. Diagnostics. Differential diagnosis. Treatment. Forecast. Prevention.

Tetanus. Story. The most important properties of the pathogen. Exotoxin formation. Stability in the environment. The spread of the pathogen, the mechanisms of infection. Immunity. The entrance gate of infection, the mechanism of action of the toxin. Pathogenesis of convulsive syndrome. Tetanus classification. The main clinical manifestations. Early symptoms. Local form. Complications, prognosis. Modern approaches to diagnosis. Differential diagnosis. Features of specific and etiotropic therapy. Pathogenetic therapy.

Intensive treatment methods. Prevention and treatment of complications. Planned and emergency prophylaxis.

Rabies. Definition Background Prevalence. Etiology. Epidemiology. Pathogenesis. Clinic. Complications. Diagnostics. Differential diagnosis. Treatment. Forecast. Prevention.

**The theme 11 Brucellosis. Anthrax. (2 hours).**

Brucellosis. Historical information. Characteristics of Brucella. Sources of infection. Epizootic among animals. Mechanisms of infection and ways of spreading infection. Pathogenetic phases of brucellosis. The defeat of the internal organs, the nervous system with brucellosis. Classification of clinical forms and phases of the disease. Clinical characteristics of subacute and chronic brucellosis. The defeat of the musculoskeletal system, nervous, cardiovascular and urogenital system. Residual brucellosis. Complications. Forecast. Clinical, epidemiological and laboratory diagnostics. Differential diagnosis. Etiotropic therapy of acute and subacute forms. Doses of antibiotics, the duration of the course. Vaccine therapy, indications, contraindications. Clinical examination.

Anthrax. Definition The most important properties of anthrax sticks. Epidemiology. Reservoirs in nature, mechanisms of infection. Epizootological and epidemiological characteristics of the disease. Susceptibility, immunity. Pathogenesis and pathological anatomy. Clinical classification of anthrax. Incubation period. The course of the disease and the development of the main symptoms. Clinical characteristics of the disease. Complications. Forecast. Diagnostics. Clinical and epidemiological criteria for diagnosis, laboratory methods. Express diagnostics. Differential diagnosis. Treatment. Serotherapy with anthrax. Etiotropic agents. Pathogenetic and symptomatic therapy. Discharge rules Prevention. Measures to prevent occupational and domestic infections.

**The theme 12 Tick-borne infections. (2 hours)**

Tick-borne encephalitis. Etiology. Epidemiology. Ways of transmission. Pathomorphology. Clinical manifestations. Classification. Complications. Reservoir, source of the disease. Seasonality. Forms of the disease. The underlying symptoms of the disease. Principles of diagnosis and treatment. Prevention.

Tick-borne rickettsiosis. Definition Background Prevalence. Etiology. Epidemiology. Pathogenesis. Patanatomy. Clinic. Complications. Diagnostics. Differential diagnosis. Treatment. Forecast. Prevention.

Ixodic tick-borne borreliosis. Definition Prevalence. Etiology. Epidemiology. Systemic clinical manifestations. Characteristics of erythema. Complications. Diagnostics. Differential diagnosis. Treatment. Forecast. Prevention. Acute and chronic borreliosis. Diagnostic criteria. Features of therapy.

### **The theme 13 Hemorrhagic fevers. HFRS. (2 hours)**

Hemorrhagic fever. Definition History of study. Prevalence. Etiology. Epidemiology. Pathogenesis. Patanatomy. Clinic. Complications. Diagnostics. Differential diagnosis. Treatment. Forecast. Prevention.

Yellow fever. Definition Background Prevalence. Etiology. Epidemiology. Pathogenesis. Patanatomy. Clinic. Complications. Diagnostics. Differential diagnosis. Treatment. Forecast. Prevention.

Ebola haemorrhagic fever. Definition Background Prevalence. Etiology. Epidemiology. Pathogenesis. Patanatomy. Clinic. Complications. Diagnostics. Differential diagnosis. Treatment. Forecast. Prevention.

HFRS. Definition Background Prevalence. Etiology. Epidemiology. Pathogenesis. Patanatomy. Clinic. Complications. Diagnostics. Differential diagnosis. Treatment. Forecast. Prevention. Source, mechanism of infection HFRS. Pathogenesis, HFRS classification. The underlying symptoms, periods of illness, etiotropic, pathogenetic and symptomatic therapy. Treatment of acute renal failure. Clinical examination. Differential diagnosis with leptospirosis.

**The theme 14 HIV infection and opportunistic diseases (2 hours).**

HIV infection (AIDS). Virological characteristics. HIV as a global health issue. Modern statistics. Ways of infection. Factors contributing to infection. Pathogenesis and pathological anatomy. Opportunistic diseases and opportunistic infections. The defeat of organs and systems. Etiological structure in various regions, clinical manifestations. Approaches to laboratory diagnostics. Antiretroviral therapy. Modern approaches to the treatment of various stages of the disease.

**The theme 15 Malaria. Sepsis. (2 hours)**

Malaria. The causative agents of human malaria. Sources and mechanisms of infection. Types of foci of malaria. Determination of the degree of endemic malaria. Susceptibility, immunity. The current epidemiological situation. Pathogenesis and pathological anatomy. Pathogenesis of anemia, malaria coma, hemoglobinuria. Pathogenesis of early and late recurrence of malaria. Pathological changes in organs and tissues. Clinical features of various forms of malaria. Early and late relapses. Severe and malignant forms of tropical malaria. Forecast. Laboratory diagnosis. Differential diagnosis. Treatment. Relief of acute manifestations and relapses. The main antimalarial chemotherapy drugs, the mechanism of their action. Treatment regimens. Intensive therapy for severe forms. Prevention.

Sepsis. Etiology and pathogenesis. Clinical classification. The role of immunosuppression in the occurrence and development of sepsis. Features of the clinical picture and the course of the disease, depending on the pathogen. Sepsis as a complication of other diseases. Differential diagnosis. Modern approaches to the diagnosis and treatment of sepsis.

**Module 3 Clinical and laboratory syndromes in the clinic of infectious diseases. Diagnosis and treatment of emergency conditions. ( 6 hours)**

**The theme 16. Emergency conditions in the clinic of infectious diseases. Fever syndrome Meningeal syndrome. (2 hours).**

Fever of unknown etiology. Survey plan and treatment.

Meningeal syndrome. Purulent primary and secondary meningitis, serous meningitis, HIV infection (direct infection of HIV, CMVI, toxoplasmosis of the brain, herpetic lesion). Meningism.

Emergency conditions in the clinic of infectious diseases. ITSH, hypovolemic shock. Acute respiratory failure, Acute renal failure. Acute liver failure. DIC - syndrome.

**The theme 17 Syndrome exanthema. Jaundice syndrome. Diarrhea syndrome. (2 hours)**

Exanthema and enanthema. Measles, rubella, scarlet fever, HIV infection, syphilis.

Jaundice syndrome. Acute and chronic viral hepatitis, and hepatitis in other infectious diseases: toxic, autoimmune hepatitis; mechanical and hemolytic jaundice, pigmented hepatosis.

Diarrheal syndrome. PTI, dysentery, cholera, salmonella, amebiasis, viral gastroenteritis, HIV infection, parasitic bowel disease; thrombosis of mesenteric vessels, appendicitis, ulcerative colitis, Crohn's disease.

**The theme 18 Lymphadenopathy syndrome. Syndrome of defeat of the oropharynx. (2 hours)**

Lymphadenopathy. HIV infection, infectious mononucleosis, felenosis, toxoplasmosis, plague, tularemia, generalized tuberculosis; sarcoidosis, lymphogranulomatosis, lymphocytic leukemia.

Affection of the oropharynx. Angina with diphtheria, typhoid fever, scarlet fever, tularemia, listeriosis, infectious mononucleosis, viral lesions, syphilis, Simanovsky-Vincent angina, agranulocytosis, Behcet's syndrome, Ludwig's angina, HIV infection (fungal infection).

**II. THE STRUCTURE AND CONTENT OF THE PRACTICAL PART OF THE COURSE (108 hours)**

## **Semester 9 (54 hours)**

### **Topic 1. Basic concepts and information about infectious diseases (6 hours)**

The device and mode of operation of the infectious hospital. The rules for hospitalization of patients with an infectious disease: registration, emergency notice (F. 1058 u) indications for hospitalization and the procedure for its conduct. The structure, volume and organization of work of the office of infectious diseases. Diagnosis of infectious diseases in an outpatient setting, rational use of laboratory and instrumental methods. Principles of etiotropic, pathogenetic and symptomatic treatment of infectious patients. Criteria for determining the duration of outpatient treatment of infectious patients, registration of sick leave, conditions for admission to work. Clinical examination and rehabilitation of convalescents, indications, deadlines, goals, activities, de-registration criteria. Anti-epidemic work at the medical site and in the focus of infection.

### **Topic 2. Typhoid and paratyphoid (6 hours).**

Etiology: the main properties of the pathogen, its antigenic structure. Epidemiology: sources of infection, infection mechanisms, pathways and transmission factors. The value of chronic carrier state. Epidemics and sporadic cases. Pathogenesis and pathological anatomy: introduction of the pathogen and reproduction in lymph nodes, bacteremia and toxemia. Pathogenesis of recurrence and complications. The cyclical course of typhoid fever, the clinical characteristics of the stages of the disease. Features of the current course of typhoid fever. The clinical picture of complications and relapses. Diagnostics. Clinical and epidemiological criteria. Early diagnosis. Laboratory diagnosis: bacteriological and serological methods. Differential diagnosis with febrile conditions **in different geographic regions. Treatment. Mode, care, diet therapy.**

### **Topic 3. Salmonellosis. Shigellosis. (6 hours).**

Causative agents of salmonellosis, principles of classification. Prevalence among people. The mechanism of infection. Pathways and transmission factors. Pathogenesis and pathological anatomy. Clinic. Clinical classification. Periods of the disease. Bacteria carrier. Clinical and laboratory diagnostics, the role of epidemiological history. Differential diagnosis. Shigellosis. The main properties of the pathogen. Modern classification. Epidemiology of dysentery. The role of invasive and toxigenic properties of the pathogen, sensitization. Clinic. The main periods of the disease. The most important syndromes in the clinic of dysentery. Classification and characterization of clinical forms. Bacteria carrier. Complications of dysentery. Diagnostics. Clinical and epidemiological criteria. Bacteriological and serological methods, immunofluorescence, allergic tests. Methods of taking material for laboratory research. Differential diagnosis. Treatment. Diet therapy. Tactics of etiotropic treatment. Pathogenetic and symptomatic treatment. The value of restorative therapy. Rules of discharge from the hospital. Prevention. Dispensary observation. Treatment. Prevention.

#### **Topic 4. Cholera. Botulism. Food toxicoinfections. (6 hours)**

Characteristic of *Vibrio cholerae*. Nag vibrios. Epidemiology. Sources of infection, infection mechanisms, pathways, transmission factors. Modern features of the spread of cholera. Pathological anatomy and pathogenesis. The mechanism of action of exotoxin. Clinical features of modern cholera. Complications. Forecast. Clinical and epidemiological criteria. Laboratory diagnosis. Express diagnostics. Rules for taking, shipping and researching material. Differential diagnosis. Principles of pathogenetic therapy. Antibacterial therapy. Discharge rules Complex preventive measures. The pathogenesis of water and electrolyte disorders in cholera. Hypovolemic shock. The degree of dehydration as a criterion for the severity of the disease. Principles of rehydration.

The value of staphylococci, spore aerobes and anaerobes, conditionally pathogenic flora in the occurrence of toxic infections. Epidemiology. Sources of



infection. The role of various foods in the spread of toxicoinfections. Pathogenesis and pathological anatomy. Clinical features of food toxicoinfections caused by various pathogens. Complications. Principles of treatment.

Botulism. Etiology. Epidemiology. Immunity. Pathogenesis, pathological anatomy. Toxinemia. The mechanism of central and nervous peripheral damage. Clinic. Syndromes: paralytic, dyspeptic, general toxic. Diagnostics. Biological sample. Specific therapy with antiobotulinic serum. Prevention.

### **Topic 5. Yersiniosis (6 hours)**

Yersinia infection. Definition, classification. Basic information about the pathogen reservoir in nature. Mechanisms of infection and ways of spreading infection. Intestinal yersiniosis. Incidence. Immunity. Major morphological changes in the internal organs. Stages of development of the process, the pathogenesis of exacerbations and relapses. Classification of forms of the disease. Characteristics of the main clinical periods of the disease. Complications and relapses. Forecast. Diagnostics. The value of clinical and epidemiological data. Laboratory diagnostic methods. Differential diagnosis. Etiotropic therapy, choice of drug, dose, duration of treatment. Pathogenetic and symptomatic therapy. Indications for surgical treatment. Prevention.

Pseudotuberculosis. Basic information about the pathogen reservoir in nature. Mechanisms of infection and ways of spreading infection. Pseudotuberculosis. Incidence. Immunity. Major morphological changes in the internal organs. Stages of development of the process, the pathogenesis of exacerbations and relapses. Classification of forms of the disease. Characteristics of the main clinical periods of the disease. Complications and relapses. Forecast. Diagnostics. The value of clinical and epidemiological data. Laboratory diagnostic methods. Differential diagnosis. Etiotropic therapy, choice of drug, dose, duration of treatment. Pathogenetic and symptomatic therapy. Indications for surgical treatment. Prevention.

### **Topic 6. Viral hepatitis. (6 hours)**

Viral hepatitis A, E. Epidemiological significance of patients with anicteric and subclinical forms. Classification of viral hepatitis. Clinical diagnostic criteria for viral hepatitis A. Features of the course of viral hepatitis E. Complications in pregnant women. Clinical and epidemiological diagnostics. The results of biochemical studies, immunological diagnosis, PCR, instrumental methods.

Viral hepatitis B, C, D. Etiology and features of epidemiology. VG classification. Clinical characteristics and options for the flow. Diagnostics (epidemiological, clinical, laboratory, instrumental methods). Diff diagnosis of various types of jaundice. Formulation of the diagnosis. Complications. Principles of basis therapy and methods of intensive therapy of severe forms. Clinical examination and prevention. Clinical examination of chronic hepatitis. Complications of chronic hepatitis. Early and laboratory diagnostics. Treatment. Fulminant forms of hepatitis. Clinical and laboratory diagnosis. Intensive therapy. Acute liver failure. Approaches to antiviral therapy.

### **Topic 7. Flu and SARS. (6 hours)**

Flu. Etiology, epidemiology, clinic, treatment, prevention. Bird flu. Etiology, epidemiology, clinic, specific treatment, prevention (vaccination). Clinic and differential diagnosis, treatment and prevention of the disease. Prevention of hospitalization of patients, indications for hospitalization. The mode of operation of the hospital. Atypical pneumonia.

Paragripp. Definition Background Prevalence. Etiology. Epidemiology. Pathogenesis. Patanatomy. Clinic. Complications. Diagnostics. Differential diagnosis. Treatment. Forecast. Prevention.

Adenovirus infection. Definition Etiology. Epidemiology. Pathogenesis. Patanatomy. Clinic. Complications. Diagnostics. Differential diagnosis. Treatment. Forecast. Prevention.

Respiratory syncytial infection. Definition Etiology. Epidemiology. Pathogenesis. Patanatomy. Clinic. Complications. Diagnostics. Differential diagnosis. Treatment. Forecast. Prevention.

Rhinovirus infection. Definition Etiology. Epidemiology. Pathogenesis. Patanatomy. Clinic. Complications. Diagnostics. Differential diagnosis. Treatment. Forecast. Prevention.

Coronavirus infection. Definition Etiology. Epidemiology. Pathogenesis. Patanatomy. Clinic. Complications. Diagnostics. Differential diagnosis. Treatment. Forecast. Prevention.

### **Topic 8. Diphtheria. Meningococcal infection. (6 hours)**

Definition Characteristics of the pathogen. Features exotoxin. The epidemiological significance of carriage. Regional features of the epidemiology of diphtheria. Ways of infection. Pathogenesis and pathological anatomy. Mechanisms of development of toxic forms and complications. Clinical classification of diphtheria. Clinical features of various clinical forms of the disease. Toxic diphtheria, features, criteria for diagnosis. Differential diagnosis. Bacterial and viral angina, angina Vincent. Diphtheria treatment. Principles of therapy, the rules of serum. Pathogenetic and etiotropic therapy. Treatment of complications. Discharge rules and criteria for recovery. Prevention of diphtheria.

Meningococcal infection. Definition The causative agent and its main properties. Serological groups and types of meningococcus. Epidemiology. Pathogenesis and pathological anatomy. Mechanisms of infection generalization. Clinical manifestations of localized and generalized forms of meningococcal infection. Forecast. diagnosis, clinical and epidemiological criteria. Laboratory examination. Research liquor. Differential diagnosis: serous viral meningitis, tuberculous meningitis, subarachnoid hemorrhage, brain processes, secondary purulent meningitis. Treatment: principles of antibiotic therapy. Pathogenetic therapy of meningococcal meningitis and meningococemia. Symptomatic

therapy. Treatment and prevention of complications. Complex preventive measures.

### **Topic 9. Helminthiasis (6 hours)**

Classification. Nematodoses, trematodozy, cestodose. Opisthorchiasis and clonorchosis. Definition Etiology. Epidemiology. Pathogenesis. Patanatomy. Clinic. Complications. Diagnostics. Differential diagnosis. Treatment. Forecast. Prevention.

Trichinosis. Features biology Trichinella. Sources of invasion, mechanism of human infection. Distribution area Geographical distribution depending on the climatic conditions and traditions. Stages of invasive process and their duration. Patho-genetic features of the defeat of the intestine, muscles, internal organs with trichinosis. Characteristic clinical forms of trichinosis. Complications, outcomes. Clinical and epidemiological criteria. Laboratory diagnosis. Differential diagnosis. Anthelmintic therapy. Comprehensive treatment of trichinosis. Intensive therapy. Comprehensive prevention. Veterinary activities.

### **Semester 10 (54 hours)**

#### **Topic 10. Erysipelas. Tetanus. Rabies. (6 hours)**

Erysipeloid erysipelas. Definition Etiology. The role of streptococcus in the development of the disease. Epidemiology, clinical classification. The clinical picture of erysipelas from the form and location. Features of the disease in the elderly and comorbidities. Complicated faces. Diagnosis, differential. diagnosis, treatment and prevention.

Tetanus. The most important properties of the pathogen. Exotoxin formation. Stability in the environment. The spread of the pathogen, the mechanisms of infection. Immunity. The entrance gate of infection, the mechanism of action of the toxin. Pathogenesis of convulsive syndrome. Tetanus classification. The main clinical manifestations. Early symptoms. Local form. Complications, prognosis. Modern approaches to diagnosis. Differential diagnosis. Features of specific and etiotropic therapy. Pathogenetic therapy. Intensive treatment

methods in specialized departments. Prevention and treatment of complications. Planned and emergency prophylaxis.

Rabies. Definition Background Prevalence. Etiology. Epidemiology. Pathogenesis. Patanatomy. Clinic. Complications. Diagnostics. Differential diagnosis. Treatment. Forecast. Prevention.

### **Topic 11. Plague. Tuleryamiya. (6 hours)**

Plague. Historical information. The current epidemiological situation. Plague - quarantine infection. The most important morphological and cultural properties of the pathogen. Toxigenicity and antigenic structure. The reservoirs of the plague microbe in nature. Natural foci of plague, their distribution. Mechanisms of infection and ways of spreading infection. Pathogenesis and pathological anatomy. Phases of pathogenesis, pathological changes in organs and tissues. Clinical classification of the plague. The periods of the disease, their clinical characteristics. Forms and variants of the disease. Complications. Forecast. The diagnostic value of the epidemiological history and clinical examination of the patient. Laboratory diagnosis, rapid diagnosis of plague. Differential diagnosis. Treatment. Etiotropic therapy in various forms of plague. Pathogenetic therapy, symptomatic therapy. Rules of discharge from the hospital. Prevention. Preventive measures in the plague foci. Emergency prevention. Preventive measures to prevent the importation of plague.

Tularemia. Definition The main properties of the pathogen, its stability in the external environment. Natural focal disease, types of foci. The reservoirs of the pathogen in nature. Mechanisms of infection. Morbidity, susceptibility, immunity. Pathogenesis and pathological anatomy. Scheme of pathogenesis, the formation of granulomas. Clinical classification of tularemia. Characteristic periods of the disease. Complications, prognosis. Clinical and epidemiological criteria. Laboratory diagnostic methods. Differential diagnosis. Principles of therapy. Etiotropic and pathogenetic. Comprehensive prevention.

### **Topic 12. Brucellosis. Leptospirosis. Anthrax. (6 hours).**

Anthrax. Definition The most important properties of anthrax sticks. Epidemiology. Reservoirs in nature, mechanisms of infection. Epizootological and epidemiological characteristics of the disease. Susceptibility, immunity. Pathogenesis and pathological anatomy. Clinical classification of anthrax. Incubation period. The course of the disease and the development of the main symptoms. Clinical characteristics of the disease. Complications. Forecast. Diagnostics. Clinical and epidemiological criteria for diagnosis, laboratory methods. Express diagnostics. Differential diagnosis. Treatment. Serotherapy with anthrax. Etiotropic agents. Pathogenetic and symptomatic therapy. Discharge rules Prevention. Measures to prevent occupational and domestic infections.

Brucellosis. Characteristics of brucellosis. Sources of infection. Epizootic among animals. Mechanisms of infection and ways of spreading infection. Pathogenetic phases of brucellosis. The defeat of the internal organs, the nervous system with brucellosis. Classification of clinical forms and phases of the disease. Periods of illness, their characteristics. Types of temperature curves. Clinical characteristics of subacute and chronic brucellosis. The defeat of the musculoskeletal system, nervous, cardiovascular and urogenital system. Residual brucellosis. Clinical, epidemiological and laboratory diagnostics. Differential diagnosis. Etiotropic therapy of acute and subacute forms. Vaccine therapy, indications, contraindications. Clinical examination. Prevention

Leptospirosis. Definition Etiology. Pathogenesis. Variants of the clinical course. Principles of diagnosis. Differential diagnosis. Principles of treatment. Features of epidemiology. The main preventive measures for the disease.

**Topic 13. Tick-borne infections: encephalitis, rickettsiosis, borreliosis. (6 hours).**

Tick-borne encephalitis. Definition Background Prevalence. Etiology. Reservoir, source of the disease. Seasonality. Forms of the disease. The

underlying symptoms of the disease. Principles of diagnosis and treatment. Forecast. Prevention.

Tick-borne rickettsiosis. Definition Background Prevalence. Etiology. Reservoir, source of the disease. Seasonality. Forms of the disease. The underlying symptoms of the disease. Principles of diagnosis and treatment. Forecast. Prevention.

Tick-borne borreliosis. Definition Background Prevalence. Etiology. Reservoir, source of the disease. Seasonality. Forms of the disease. The underlying symptoms of the disease. Principles of diagnosis and treatment. Forecast. Prevention.

#### **Topic 14. Hemorrhagic fevers. (6 o'clock).**

Hemorrhagic fever. Definition Background Prevalence. Etiology. Epidemiology. Pathogenesis. Patanatomy. Clinic. Complications. Diagnostics. Differential diagnosis. Treatment. Forecast. Prevention.

Yellow fever. Hemorrhagic fever of the Crimea-Congo. Hemorrhagic fever Marburg. Hemorrhagic fever Lassa. Ebola haemorrhagic fever. Definition Background Prevalence. Etiology. Epidemiology. Pathogenesis. Patanatomy. Clinic. Complications. Diagnostics. Differential diagnosis. Treatment. Forecast. Prevention.

HFRS - etiology and epidemiology. HFRS is a natural focal disease of the Amur Region. Pathogenesis and pathology. Clinical diagnosis and differential diagnosis. Tactics of treatment and prevention.

#### **Topic 15. Protozoosis: malaria, toxoplasmosis. (6 hours).**

Malaria. The causative agents of human malaria, types, subspecies and strains of plasmodia. Development cycles in the body of a mosquito. Resistance to chemotherapy drugs. Sources and mechanisms of infection. Post-transfusion malaria. Susceptibility, immunity. Pathogenesis and pathological anatomy. Pathogenesis of anemia, malaria coma, hemoglobinuria. Pathogenesis of early and late recurrence of malaria.

Pathological changes in organs and tissues. Clinical features. Phase of the disease. Early and late relapses. Complicated and congenital malaria. Forecast. Clinical and epidemiological diagnostics. Laboratory diagnosis. Relief of acute manifestations and relapses. Treatment regimens. Intensive therapy for severe forms. Coma treatment.

Toxoplasmosis. Definition Background Prevalence. Etiology. Epidemiology. Pathogenesis. Patanatomy. Clinic. Complications. Diagnostics. Differential diagnosis. Treatment. Forecast. Prevention. Toxoplasmosis in pregnant women. Features of laboratory diagnosis. Tactics of managing the infected. Indications for chemoprophylaxis.

**Topic 16. Sepsis. (6 hours).**

Modern statistics. Sepsis as a problem in Europe and the tropical zone. Etiology and pathogenesis. Clinical classification. The role of immunosuppression in the occurrence and development of sepsis. Features of the clinical picture and the course of the disease, depending on the pathogen. Sepsis as a complication of other diseases. Differential diagnosis. Modern approaches to the diagnosis and treatment of sepsis. Sepsis as nosocomial infection. Nosocomial sepsis. The main pathogens. Clinical course. Diagnostics. Treatment. Clinical manifestations in various forms of the disease. Complications. Forecast. Clinical and laboratory diagnostics. Differential diagnosis. Treatment of complications. Principles of therapy. Antibacterial therapy of sepsis.

**Topic 17. HIV - infection and opportunistic diseases. (6 hours).**

HIV infection. HIV as a global health issue. Geographical distribution. Modern statistics. Factors contributing to infection. Pathogenesis and pathological anatomy. Opportunistic diseases and opportunistic infections. Etiological structure in various regions, clinical manifestations. Laboratory diagnosis. Clinical criteria. Antiretroviral therapy. Modern approaches to the treatment of various stages of the disease. Damage to the central nervous system,



gastrointestinal tract, respiratory organs, skin. Peculiarities of HIV infection in pregnant women.

Opportunistic infections. Etiology of herpes infection. CMVI. Epstein-Barr - a viral infection. Epidemiology. Clinical manifestations. Clinical diagnostic criteria. Outcomes and prognosis of acute herpes infection. Pathogenesis. Clinic. Diagnostics. Treatment. Prevention.

**Topic 18. Emergency conditions in the clinic of infectious diseases (6 hours).**

Emergency care for critical conditions in infectiology. Hypovolemic shock. Definition The reasons. Clinic. Diagnostics. Treatment. Prevention. Infectious and toxic shock. Definition The reasons. Clinic. Diagnostics. Treatment. Prevention. DIC syndrome. Definition The reasons. Clinic. Diagnostics. Treatment. Prevention. Acute renal failure. Definition The reasons. Clinic. Diagnostics. Treatment. Prevention. Acute liver failure. Definition The reasons. Clinic. Diagnostics. Treatment. Prevention. Obstructive syndrome. Definition Causes Clinic. Diagnostics. Treatment. Prevention. Swelling-swelling of the brain. Definition The reasons. Clinic. Diagnostics. Treatment. Prevention. Respiratory failure Definition. The reasons. Clinic. Diagnostics. Treatment. Prevention.

**III. SCHOLASTIC-METHODICAL PROVISIONING  
FOR THE STUDENTS' INDIVIDUAL WORK**

Scholastic-methodical provisioning for the students' individual work in the discipline Infectious Diseases presented in Supplement 1 and includes:

- schedule for performing individual work in the discipline, including the approximate time to allocate on each task;
- description of the tasks for individual work of students and methodical recommendations for their completion;

- requirements for submission and registration of results of individual work.

#### IV. CONTROL FOR ATTAINING THE COURSE GOAL

№	Controlled sections/topics of the discipline	Codes and stages of forming the competences		Means for evaluation	
				Current control	Half-way attestation
1	<b>Module 1</b> General issues of infectious diseases. <b>Module 2</b> Particular issues of infectious diseases <b>Module 3</b> Clinical and laboratory syndromes in the clinic of infectious diseases. Diagnosis and treatment of emergency conditions	GPC-8  - the readiness for medical use of drugs and other medical substances and their combinations in solving professional problems	Knows	PT-1 Test	Exam Questions
			Is able to	Case study	Case study
			Possesses	EP—3 Report, presentation	Case study
2	<b>Module 1</b> General issues of infectious diseases. <b>Module 2</b> Particular issues of infectious diseases <b>Module 3</b> Clinical and laboratory syndromes in the clinic of infectious diseases. Diagnosis and treatment of emergency conditions	PC-5 the readiness to collect and to analyze patient complaints, data of its history , the results of laboratory, instrumental postmortem and other examinations in order to recognize the incidence or the absence of diseases	Knows	PT-1 Test	Exam Questions 1-100
			Is able to	Case study	Case study
			Possesses	EP—3 Report, presentation	Case study
3	<b>Module 1</b> General issues of infectious diseases. <b>Module 2</b> Particular issues of infectious diseases <b>Module 3</b> Clinical and laboratory syndromes in the clinic of infectious diseases. Diagnosis and treatment of emergency conditions	PC-6 the ability of determining the patient's basic pathological conditions , symptoms, syndromes, diseases in accordance with the International Statistical Classification of Diseases and problems related to health , the 10th review.	Knows	PT-1 Test	Exam Questions 1-40
			Is able to	Case study	Case study
			Possesses	EP—3 Report, presentation	Case study
4	<b>Module 1</b> General issues of infectious diseases.	PC-8 the ability to determining the tactics of patient	Knows	PT-1 Test	Exam Questions 1-100

	<b>Module 2</b> Particular issues of infectious diseases <b>Module 3</b> Clinical and laboratory syndromes in the clinic of infectious diseases. Diagnosis and treatment of emergency conditions	surveillance with different nosological entities	Is able to	Case study	Case study
			Possesses	EP—3 Report, presentation	Case study
5	<b>Module 1</b> General issues of infectious diseases. <b>Module 2</b> Particular issues of infectious diseases <b>Module 3</b> Clinical and laboratory syndromes in the clinic of infectious diseases. Diagnosis and treatment of emergency conditions	PC-10 the willingness to deliver medical first aid in case of sudden acute diseases and conditions, exacerbation of a chronic disease , which are not life-threatening and do not require emergency medical assistance	Knows	PT-1 Test	Exam Questions 1-40
			Is able to	Case study	Case study
			Possesses	EP—3 Report, presentation	Case study

The model tests, methodical materials prescribing procedures for evaluation of knowledge, skills and/or practical experience, as well as criteria and indicators necessary to assess knowledge, abilities, skills and the defined stages of forming competencies in the process of acquiring educational program, are presented in Addition 2.

## V. LIST OF EDUCATIONAL LITERATURE AND INFORMATIONAL-METHODICAL REQUIREMENTS FOR THE DISCIPLINE

### Primary

1. Infectious diseases vol. I / ed. by Jonathan Cohen, William G. Powderly, Steven M. Opal. [Netherlands] : Elsevier, [2016], 811 p.

<http://lib.dvfu.ru:8080/lib/item?id=chamo:822044&theme=FEFU>

2. Infectious diseases vol. II / ed. by Jonathan Cohen, William G. Powderly, Steven M. Opal. [Netherlands] : Elsevier, [2016], 812 p.

<http://lib.dvfu.ru:8080/lib/item?id=chamo:822047&theme=FEFU>

3. Pediatric Infectious Disease [Electronic resource] / Christine M. Houser, Springer New York, 2015

<http://link.springer.com/openurl?genre=book&isbn=978-1-4939-1329-9>

4. Viral Infections of Humans [Electronic resource] / Richard A. Kaslow, Lawrence R. Stanberry, James W. Le Duc, Springer US, 2014

<http://link.springer.com/openurl?genre=book&isbn=978-1-4899-7448-8>

5. Handbook of Epidemiology [Electronic resource] / Wolfgang Ahrens, Iris Pigeot, Springer New York, 2014

<http://link.springer.com/openurl?genre=book&isbn=978-0-387-09834-0>

### **Additional**

1. Nelson textbook of pediatrics vol 1 / ed. by Robert M. Kliegman, Bonita F. Stanton, Joseph W. St Geme III. [Philadelphia, Pennsylvania] : Elsevier, [2016], 1756 p.

<http://lib.dvfu.ru:8080/lib/item?id=chamo:822087&theme=FEFU>

2. Zoonoses - Infections Affecting Humans and Animals [Electronic resource] / Andreas Sing, Springer Netherlands, 2015

<http://link.springer.com/openurl?genre=book&isbn=978-94-017-9457-2>

3. The Future of HIV-1 Therapeutics [Electronic resource] / Bruce E. Torbett, David S. Goodsell, Douglas D. Richman, Springer International Publishing, 2015

<http://link.springer.com/openurl?genre=book&isbn=978-3-319-18518-7>

4. Practical and Laboratory Diagnosis of Tuberculosis [Electronic resource] / Guadalupe García-Elorriaga, Guillermo del Rey-Pineda, Springer International Publishing, 2015

<http://link.springer.com/openurl?genre=book&isbn=978-3-319-20478-9>

5. Tuberculosis in Adults and Children [Electronic resource] / Dorothee Heemskerk, Maxine Caws, Ben Marais, Jeremy Farrar, Springer International Publishing, 2015

<http://link.springer.com/openurl?genre=book&isbn=978-3-319-19132-4>

6. Hospital Infection Prevention [Electronic resource] / Chand Wattal, Nancy Khardori, Springer India, 2014

<http://link.springer.com/openurl?genre=book&isbn=978-81-322-1608-7>

7. Cholera Outbreaks [Electronic resource] / G. Balakrish Nair, Yoshifumi Takeda, Springer Berlin Heidelberg, 2014

<http://link.springer.com/openurl?genre=book&isbn=978-3-642-55404-9>

8. Neglected Tropical Diseases - Latin America and the Caribbean [Electronic resource] / Carlos Franco-Paredes, José Ignacio Santos-Preciado, Springer Vienna, 2015

<http://link.springer.com/openurl?genre=book&isbn=978-3-7091-1422-3>

9. An Introduction to Mathematical Epidemiology [Electronic resource] / Maia Martcheva, Springer US, 2015

<http://link.springer.com/openurl?genre=book&isbn=978-1-4899-7612-3>

10. Biostatistics and Epidemiology [Electronic resource] / Sylvia Wassertheil-Smoller, Jordan Smoller, Springer New York, 2015

<http://link.springer.com/openurl?genre=book&isbn=978-1-4939-2134-8>

### **The list of resources of the information-telecommunication network “Internet”**

1. Primorsky Krai of Russia:

<http://www.fegi.ru/PRIMORYE/ANIMALS/bpi.htm>

2. Scientific electronic library: <http://www.elibrary.ru>

3. Central Scientific Medical Library: <http://www.scsml.rssi.ru>

4. Medical Internet Resources: <http://www.it2med.ru/mir.html>

5. Publishing House "Medicine": <http://www.medlit.ru>

6. Scientific Electronic Library: <http://elibrary.ru/>

## LIST OF INFORMATION TECHNOLOGIES AND SOFTWARE

The location of the computer equipment on which the software is installed, the number of jobs	List of licensed software
Multimedia auditorium Vladivostok Russian island, Ayaks 10, building 25.1, RM. M723 Area of 80.3 m <sup>2</sup> (Room for independent work)	Windows Seven enterprice SP3x64 Operating System Microsoft Office Professional Plus 2010 office suite that includes software for working with various types of documents (texts, spreadsheets, databases, etc.); 7Zip 9.20 - free file archiver with a high degree of data compression; ABBYY FineReader 11 - a program for optical character recognition; Adobe Acrobat XI Pro 11.0.00 - software package for creating and viewing electronic publications in PDF; WinDjView 2.0.2 - a program for recognizing and viewing files with the same format DJV and DjVu.

In order to provide special conditions for the education of persons with disabilities all buildings are equipped with ramps, elevators, lifts, specialized places equipped with toilet rooms, information and navigation support signs.

## VI. METHODOLOGICAL RECOMMENDATIONS ON THE COMPLETING THE DISCIPLINE

The main goal to be attained on completion of the discipline is the formation and development in the students the ability to interpret data of laboratory, clinical and functional diagnostics for the solution of professional tasks. At the end of the course the student should have the skills of diagnosis of the major nosological forms of Infectious Diseases.

Performing by students of extracurricular individual work in extracurricular time, both under the guidance of a teacher and without his direct participation is important in order to achieve this goal.

Students are encouraged to systematically study the teaching material using textbooks, textx and methodical writings in accordance with the study plan, and

to perform all task in a timely manner, which is especially important when using grade-rating system for assessing students' knowledge.

The goal of students' individual work is to master fundamental knowledge, professional skills and experiences of their specialty, experience of creative scientific research. Individual work of students promotes the development of autonomy, responsibility and organization, creative approach to solving the problems of the educational and professional level, deepen and broaden knowledge, formation of interest to cognitive activity, mastering the techniques of learning, the development of cognitive abilities.

Individual work of students for the discipline Russian language and speech culture is mandatory for each student, its volume is determined by the federal educational standard and curriculum. It is necessary at the very beginning of the course to carefully plan the time allocated for individual work with the sources and literature on the subject.

Individual work includes:

- a) reading textbooks, lectures, methodical recommendations, scientific articles
- b) reading and analyzing literature passages of journalistic nature;
- c) reading and analysis of literary passages of scientific nature;
- g) working with resources posted on the Internet.

The purpose of this types of work is to instill an interest in reading and to teach students to overcome difficulties in reading, extract the necessary information from the text to teach them to use Russian and International sources for self-education and improve their professional skills.

## **LOGISTICS DISCIPLINE**

For practical work, as well as for the organization of independent work, students have access to the following laboratory equipment and specialized classrooms

that meet the current sanitary and fire regulations, as well as safety requirements during training and scientific and industrial works:

<b>Name of the equipped rooms and rooms for independent work</b>	<b>List of main equipment</b>
The computer class of the School of biomedical AUD. M723, 15 work places	<p>Screen, electrically 236*147 cm to trim the screen; Projector DLP technology, 3000 ANSI LM, WXGA with 1280x800 resolution, 2000:1 Mitsubishi EW330U; Subsystem of specialized mounting equipment course-2007 Tuarex; Subsystem of videocommunity: matrix switch DVI and DXP 44 DVI Pro advertising; extension cable DVI over twisted pair DVI 201 TX/RX advertising; Subsystem of audiocommentary and sound; speaker system for ceiling si 3ct LP Extron on from; digital audio processor DMP 44 LC the Extron; the extension for the controller control IPL T CR48; wireless LAN for students is provided with a system based on 802.11 a/b/g/N 2x2 MIMO(2SS) access points.</p> <p>Monoblock HP Loope 400 all-in-one 19.5 in (1600x900), core i3-4150t, 4GB DDR3-1600 (1x4GB), 1TB HDD 7200 SATA, and a DVD+ / -RW, GigEth, Wi-Fi and BT, the USB port of roses/MSE, Win7Pro (64-bit)+Win8.1Pro(64-bit), 1-1-1 Wty</p>
Multimedia audience  690049, Vladivostok, street Russian 55	<p>Monoblock Lenovo C360G-i34164G500UDK; projection Screen Projecta Elpro Electrol, 300x173 cm; Multimedia projector, Mitsubishi FD630U, 4000 ANSI Lumen 1920 x 1080; Flush interface with automatic retracting cables TLS TAM 201 Stan; Avervision CP355AF; lavalier Microphone system UHF band Sennheiser EW 122 G3 composed of a wireless microphone and receiver; Codec of videoconferencing LifeSizeExpress 220 - Codeonly - Non-AES; Network camera Multipix MP-HD718; Two LCD panel, 47", Full HD, LG M4716CCBA; Subsystem of audiocommentary and sound reinforcement; centralized uninterrupted power supply</p>
Reading rooms of the Scientific library of the University open access Fund (building a - 10)	<p>Monoblock HP Loope 400 All-in-One 19.5 in (1600x900), Core i3-4150T, 4GB DDR3-1600 (1x4GB), 1TB HDD 7200 SATA, DVD+/-RW,GigEth,wifi,BT,usb kbd/mse,Win7Pro (64-bit)+Win8.1Pro(64-bit),1-1-1 Wty Speed Internet access 500 Mbps. Jobs for people with disabilities equipped with displays and Braille printers.; equipped with: portable reading devices flatbed texts, scanning and reading machines videovelocitly with adjustable color spectrums; increasing electronic loops and ultrasonic marker</p>
Accreditation-simulation	Adult model for demonstration and testing of foreign body



center of the school of Biomedicine	removal (reception of Heimlich) (2 pcs.) Schiller Fred defibrillator mod. Easy trainer with accessories (1 pc.) Adult simulator with electronic control, training, computerized (1 pc.) AED educational defibrillator (1 pc.) Phantom of the respiratory system, NMS and defibrillation (1 pc.) Dummy for resuscitation and patient care (1 pc.) Pulse Oximeter (1 pc.) Immobilization spinal immobilization shield YXH-1A6A complete with immobilization folding head retainer (1 pc.) Tire - collar for adults SHTIVV-01 Stretcher longitudinal-transverse folding NPPS-MM (2 pcs.) Set of tires for transport ladder KShTL-MP-01 Medical stretchers (1 pc.) Protractor medical universal
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**Clinical bases:**

Regional State Autonomous Healthcare Institution "Regional Clinical Hospital №2".





THE MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION  
Federal State autonomous education institution of higher education  
«**Far Eastern Federal University**»  
(FEFU)

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**SCHOOL OF BIOMEDICINE**

**TRAINING AND METHODOLOGICAL SUPPORT**

**INDEPENDENT WORK OF TRAINEES**

in discipline Infectious Diseases  
Educational program  
Preparation for 31.05.01. General Medicine  
**Form of training full-time**

**Vladivostok**

**2016**

**The schedule execution of independent work on discipline  
« Phthisiology»  
(36 hours)**

№	Date / deadlines	Type of independent work	Estimated time to complete rules	Form of control
<b>Semester 9</b>				
	1st-6th Week	Preparing for the Disease history	12 h.	Disease history
	7th-16th Week	Submission of presentations on the theme of the abstract	12 h.	EP—3 Report, presentation
	17th-18th Week	Preparing to offset	12 h.	PT-1 colloquium
<b>Semester 10</b>				
	1st-6th Week	Preparing for the Disease history	3 h.	Disease history
	7th-16th Week	Submission of presentations on the theme of the abstract	6 h.	EP—3 Report, presentation
	17th-18th Week	Preparing to exam	27h.	PT-1 colloquium

**Guidelines for writing and design of the abstract**

Abstract - the creative activity of the student, which reproduces in its structure research activities to solve theoretical and applied problems in a particular branch of scientific knowledge. By virtue of this course work is an essential component of the educational process in higher education.

The abstract, being a model of scientific research, is an independent work in which a student solves a problem of a theoretical or practical nature, applying the scientific principles and methods of a given branch of scientific knowledge. The result of this scientific search can have not only subjective, but also objective scientific novelty, and therefore can be presented for discussion by the scientific community in the form of a scientific report or a message at a scientific-practical conference, as well as a scientific article.

The abstract implies the acquisition of skills for building business cooperation based on the ethical standards of scientific activity. Purposefulness, initiative, disinterested cognitive interest, responsibility for the results of their actions, conscientiousness, competence - personality traits that characterize the subject of research activities corresponding to the ideals and norms of modern science.

The abstract is an independent educational and research activity of the student. The teacher assists in a consultative manner and assesses the process and the results of the activity. He provides an approximate topic of abstract work, specifies the problem and topic of research with the intern, helps to plan and organize research activities, assigns time and a minimum number of consultations.

The teacher accepts the text of the abstract for verification at least ten days before the defense.

Traditionally there was a certain structure of the abstract, the main elements of which in order of their location are the following:

1. Title page.
2. The task.
3. Table of Contents
4. List of symbols, symbols and terms (if necessary).
5. Introduction.
6. The main part.
7. Conclusion.
8. Bibliographic list.
9. Applications.

The title page lists: educational institution, graduating department, author, teacher, research topic, place and year of the essay.

The title of the abstract should be as short as possible and fully consistent with its content.

The table of contents (content) reflects the names of the structural parts of the abstract and the pages on which they are located. The table of contents should be placed at the beginning of work on one page.

The presence of a detailed introduction - a mandatory requirement for the abstract. Despite the small volume of this structural part, its writing causes considerable difficulties. However, it is a qualitatively executed introduction that is the key to understanding the entire work, which testifies to the professionalism of the author.

Thus, the introduction is a very crucial part of the essay. The introduction should start with a justification of the relevance of the chosen topic. As applied to the abstract, the concept of "relevance" has one feature. From how the author of the essay can choose a topic and how correctly he understands and evaluates this topic from the point of view of modernity and social significance, characterizes his scientific maturity and professional preparedness.

In addition, in the introduction it is necessary to isolate the methodological basis of the abstract, to name the authors, whose works constituted the theoretical basis of the study. A review of the literature on the topic should show the author's thorough acquaintance with special literature, his ability to systematize sources, critically examine them, highlight the essential, determine the most important in the current state of knowledge of the topic.

The introduction reflects the importance and relevance of the chosen topic, defines the object and subject, purpose and objectives, and the chronological framework of the study.

The introduction ends with a presentation of general conclusions about the scientific and practical significance of the topic, the degree of its knowledge and sources, and the hypothesis being put forward.

The main part describes the essence of the problem, reveals the topic, determines the author's position, factual material is given as an argument and for illustrations of put forward provisions. The author must demonstrate the

ability to consistently present the material while analyzing it simultaneously. Preference is given to the main facts, rather than small details.

The abstract ends with the final part, which is called "conclusion". Like any conclusion, this part of the abstract serves as a conclusion, due to the logic of the study, which is a form of synthesis accumulated in the main part of scientific information. This synthesis is a consistent, coherent presentation of the results obtained and their relation to a common goal and specific tasks set and formulated in the introduction. It is here that contains the so-called "output" knowledge, which is new in relation to the original knowledge. The conclusion may include suggestions of a practical nature, thereby increasing the value of theoretical materials.

So, in the conclusion of the abstract should be: a) presents the conclusions of the study; b) theoretical and practical significance, novelty of the abstract; c) indicated the possibility of applying the results of the study.

After the conclusion it is accepted to place the bibliographic list of the used literature. This list is one of the essential parts of the abstract and reflects the independent creative work of the author of the abstract.

The list of sources used is placed at the end of the work. It is made or in alphabetical order (by the name of the author or the name of the book), or in the order in which the references appear in the text of the written work. In all cases, the full title of the work, the names of the authors or the editor of the publication are indicated, if a group of authors participated in writing the book, data on the number of volumes, the name of the city and publisher in which the work was published, year of publication, number of pages.

#### Methodical recommendations for the preparation of presentations

For the preparation of the presentation it is recommended to use: PowerPoint, MS Word, Acrobat Reader, LaTeX-bev package. The simplest program for creating presentations is Microsoft PowerPoint. To prepare a

presentation, it is necessary to process the information collected while writing the essay.

The sequence of preparation of the presentation:

1. Clearly state the purpose of the presentation.
2. Determine what the presentation format will be: live presentation (then how long it will be) or e-mail (what will be the context of the presentation).
3. Select the entire content of the presentation and build a logical chain of presentation.
4. Identify key points in the content of the text and highlight them.
5. Determine the types of visualization (pictures) to display them on slides in accordance with the logic, purpose and specificity of the material.
6. Choose the design and format the slides (the number of pictures and text, their location, color and size).
7. Check the visual perception of the presentation.

The types of visualization include illustrations, images, charts, tables. The illustration is a representation of a real-life visual. The images - as opposed to illustrations - are a metaphor. Their purpose is to cause an emotion and create an attitude towards it, to influence the audience. With the help of well-designed and presented images, information can remain permanently in a person's memory. Chart - visualization of quantitative and qualitative relationships. They are used for convincing data demonstration, for spatial thinking in addition to the logical one. Table - specific, visual and accurate data display. Its main purpose is to structure information, which sometimes facilitates the perception of data by the audience.

Practical tips on preparing a presentation

- printed text + slides + handouts are prepared separately;
- slides - a visual presentation of information that should contain a minimum of text, a maximum of images that carry a meaning, to look visually and simply;



- textual content of the presentation - oral speech or reading, which should include arguments, facts, evidence and emotions;
- recommended number of slides 17-22;
- mandatory information for the presentation: the subject, surname and initials of the speaker; message plan; brief conclusions from all that has been said; list of sources used;
- handout - should provide the same depth and coverage as the live performance: people trust more what they can carry with them than disappear images, words and slides are forgotten, and handouts remain a constant tangible reminder; handouts are important to distribute at the end of the presentation; Handouts should be different from slides, should be more informative.

### **Criteria for evaluation of the abstract.**

The stated understanding of the abstract as a holistic copyright text defines the criteria for its evaluation: the novelty of the text; the validity of the choice of source; the degree of disclosure of the essence of the issue; compliance with the requirements for registration.

The novelty of the text: a) the relevance of the research topic; b) novelty and independence in the formulation of the problem, the formulation of a new aspect of the well-known problem in the establishment of new connections (interdisciplinary, intra-subject, integration); c) the ability to work with research, critical literature, systematize and structure the material; d) the appearance of the author's position, independence of assessments and judgments; d) stylistic unity of the text, the unity of genre features.

The degree of disclosure of the essence of the question: a) the plan compliance with the topic of the abstract; b) compliance with the content of the topic and plan of the abstract; c) completeness and depth of knowledge on the topic; d) the validity of the methods and methods of working with the material; e) the ability to generalize, draw conclusions, compare different points of view on one issue (problem).

The validity of the choice of sources: a) evaluation of the used literature: whether the most famous works on the topic of research are involved (including recent journal publications, recent statistics, summaries, references, etc.).

Compliance with the requirements for registration: a) how correct the references to the used literature, references are; b) assessment of literacy and presentation culture (including spelling, punctuation, stylistic culture), knowledge of terminology; c) compliance with the requirements for the volume of the abstract.

The reviewer should clearly state the remark and questions, preferably with references to the work (possible on specific pages of the work), to research and evidence that the author did not take into account.

The reviewer can also indicate: whether the student has addressed the topic earlier (essays, written works, creative works, olympiad works, etc.) and whether there are any preliminary results; how the graduate conducted the work (plan, intermediate stages, consultation, revision and processing of the written or lack of a clear plan, rejection of the recommendations of the head).

The student submits an essay for review no later than a week before the defense. The reviewer is the teacher. Experience shows that it is advisable to acquaint the student with the review a few days before the defense. Opponents are appointed by the teacher from among the students. For an oral presentation, a student needs about 10–20 minutes (approximately as long as he answers with tickets for the exam).

Grade 5 is set if all the requirements for writing and defending an essay are fulfilled: the problem is indicated and its relevance is justified, a brief analysis of different points of view on the problem under consideration is made and one's own position is logically presented, conclusions are formulated, the topic is fully disclosed, the volume is met, external requirements are met design, given the correct answers to additional questions.

Grade 4 - the basic requirements for the abstract and its protection are met, but there are shortcomings. In particular, there are inaccuracies in the presentation of the material; there is no logical sequence in the judgments; not sustained volume of the abstract; there are omissions in the design; Additional questions for the protection given incomplete answers.

Grade 3 - there are significant deviations from the requirements for referencing. In particular: the topic is covered only partially; factual errors in the content of the abstract or when answering additional questions; during the protection there is no output.

Grade 2 - the topic of the essay is not disclosed, a significant misunderstanding of the problem is found.

Grade 1 - student's essay is not presented.

### **Approximate topics of abstracts and presentations**

1. Emergency prevention of cholera.
2. Treatment of bacterial meningitis.
3. Differential diagnosis of exanthems.
4. Modern treatment of chronic viral hepatitis.
5. Antibiotic-associated diarrhea.
6. Hemorrhagic fever with renal syndrome and other hemorrhagic fevers, features of the clinical course at the present stage.
7. Etiotropic immunomodulating therapy of herpes virus infections.
8. Features of the course of cerebral toxoplasmosis in HIV-infected people.
9. Vaccine prevention and vaccine therapy of infectious diseases.
10. Features of the flu in pregnant women.
11. Organization and carrying out of anti-epidemic measures in the foci of infectious diseases.
12. Epidemiological surveillance of infectious diseases.
13. Federal law "On immunoprophylaxis of infectious diseases."

14. Epidemiological characteristics of the manifestations of the epidemic process of intestinal infections.

15. Comparative characteristics of the epidemic process of intestinal infections in various ways of transmission of the pathogen.

16. Epidemic process of typhoid-paratyphoid infections.

17. Organization and conduct of anti-epidemic work in the epidemic focus of typhoid and paratyphoid fevers.

18. The epidemic process of shigellosis.

19. Clinical and epidemiological characteristics of four groups of colibacillosis.

20. Manifestations of the epidemic process of yersiniosis and pseudotuberculosis.

21. Epidemiology of viral hepatitis with a fecal-oral transmission mechanism (A, E).

22. Epidemiology of viral hepatitis with contact and artificial mechanisms of transmission (B, C, D).

23. Epidemiological characteristics of the manifestations of the epidemic process of respiratory tract infections.

24. Organization and implementation of preventive and anti-epidemic measures for respiratory tract infections.

25. Features of the epidemiology of influenza at the present stage of development of the epidemic process.

26. Features of the epidemiology of diphtheria in the period of mass immunization.

27. Organization and implementation of preventive and anti-epidemic measures in the epidemic focus of diphtheria.

28. Epidemic process of measles in the period of mass immunization, prophylactic and anti-epidemic measures.

29. The epidemic process of whooping cough in the period of mass immunization, prophylactic and anti-epidemic measures.

30. Epidemic process of meningococcal infection.



THE MINISTRY OF EDUCATION AND SCIENCE OF THE RUSSIAN FEDERATION  
Federal State autonomous education institution of higher education  
«**Far Eastern Federal University**»  
(FEFU)

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**SCHOOL OF BIOMEDICINE**

**FUND ASSESSMENT TOOLS**

**TRAINING COMPLEX OF DISCIPLINE**

Infectious Diseases  
Educational program  
Preparation for 31.05.01. General Medicine  
**Form of training full-time**

**Vladivostok**

**2016**

## Passport of the Fund Assessment Tools

Competence code and formulation	Stages of forming the competence	
<p>GPC-8</p> <p>- the readiness for medical use of drugs and other medical substances and their combinations in solving professional problems</p>	Knows	<p>the classification and main characteristics of drugs, pharmacodynamics and pharmacokinetics, indications and contraindications to the use of drugs, side effects;</p> <p>general principles of receptor design and formulation of prescription medicinal formulations.</p>
	Is able to	<p>to analyze the effect of drugs on the basis of their pharmacological properties and the possibility of their using for therapeutic treatment;</p> <p>write prescriptions for medicines, use different medicines, apply basic antibacterial, antiviral and biological preparations;</p> <p>evaluate the possible manifestations of overdose of drugs and how to eliminate them; substantiate the principles of pathogenetic therapy of the most common diseases.</p>
	Possesses	<p>skills in the use of drugs in the treatment, rehabilitation and prevention of various diseases and pathological conditions.</p>
<p>PC-5</p> <p>the readiness to collect and to analyze patient complaints, data of its history, the results of laboratory, instrumental postmortem and other examinations in order to recognize the incidence or the absence of diseases</p>	Knows	<p>the etiology, diagnosis, treatment and prevention of infectious diseases;</p> <p>the clinical signs, features of the course and possible complications of infectious diseases occurring in typical form;</p> <p>modern methods of clinical instrumental diagnosis of patients infection profile;</p> <p>features of the collection of pathological materials; precautions; special clothing;</p> <p>basic principles of diagnosis, treatment and rehabilitation of infectious diseases, indications for hospitalization with infectious diseases;</p> <p>principles of follow-up observation, rehabilitation of infectious patients;</p> <p>implementation of specific and nonspecific prevention of infectious diseases.</p>
	Is able to	<p>participate in the organization and provision of medical - preventive and sanitary anti-epidemic, prophylactic and rehabilitation assistance to the population with infectious diseases;</p>

		interpret the results of the survey, make a preliminary diagnosis, outline the scope of additional studies to clarify the diagnosis; formulate a clinical diagnosis; develop a treatment plan taking into account the course of the disease, select and appoint drug therapy, use methods of non-drug treatment, to conduct rehabilitation measures.
	Possesses	the interpretation of the results of laboratory, instrumental methods of diagnosis with infectious disease; algorithm for making a preliminary diagnosis with the subsequent direction to additional examination and to specialist doctors; an algorithm for making a comprehensive clinical diagnosis of patients; the algorithm for the implementation of the main medical diagnostic and therapeutic measures to provide first medical aid in emergency and life-threatening conditions for infectious diseases.
PC-6 the ability of determining the patient's basic pathological conditions , symptoms,syndromes, diseases in accordance with the International Statistical Classification of Diseases and problems related to health , the 10th review.	Knows	the clinical signs, features of the course and possible complications of the most common infectious diseases; modern classification of infectious diseases; criteria for the diagnosis of infectious diseases.
	Is able to	determine the patients basic pathological conditions, symptoms, syndromes, diseases, nosologic forms; formulate a topical diagnosis; to make preliminary and final diagnoses with a reflection of the etiology, course, nature and degree of dysfunction; outline the scope of additional studies to clarify the diagnosis and obtain a reliable result.
	Possesses	basic skills of algorithm of the developed clinical diagnosis.
PC-8 the ability to determining the tactics of patient surveillance with different nosological entities	Knows	methods of treating patients with infectious diseases; the mechanism of action of the main groups of drugs; medical indications and contraindications to their use; complications caused by their use.
	Is able to	develop a plan of therapeutic measures for various infectious diseases; select an individual type of care for the patient in accordance with the situation: primary care, ambulance, hospitalization; formulate indications for the chosen method of



		treatment, taking into account etiologic and pathogenetic means, to justify pharmacotherapy in a particular patient with the main pathological syndromes, to determine the route of administration, the regimen and dose of drugs carry out the appointment of drug therapy for children, taking into account the clinical picture of the disease.
	Possesses	the tactics of managing patients with various nosological forms.
PC-10 the willingness to deliver medical first aid in case of sudden acute diseases and conditions, exacerbation of a chronic disease, which are not life-threatening and do not require emergency medical assistance	Knows	methods of treating patients with infectious diseases; the mechanism of action of the main groups of drugs; medical indications and contraindications to their use; complications caused by their use.
	Is able to	select an individual type of care for the patient in accordance with the situation: primary care, ambulance, hospitalization; formulate indications for the chosen method of treatment, taking into account etiologic and pathogenetic means, to justify pharmacotherapy in a particular patient with the main pathological syndromes, to determine the route of administration, the regimen and dose of drugs carry out the appointment of drug therapy for children, taking into account the clinical picture of the disease.
	Possesses	skills the willingness to manage and treat patients with various nosological forms.

### CONTROL FOR ATTAINING THE COURSE GOAL

№	Controlled sections/topics of the discipline	Codes and stages of forming the competences		Means for evaluation	
				Current control	Half-way attestation
1	<b>Module 1</b> General issues of infectious diseases. <b>Module 2</b> Particular issues of infectious diseases <b>Module 3</b> Clinical and laboratory syndromes in the clinic of infectious diseases. Diagnosis and treatment of emergency conditions	GPC-8  - the readiness for medical use of drugs and other medical substances and their combinations in solving professional problems	Knows	PT-1 Test	Exam Questions
			Is able to	Case study	Case study
			Possesses	EP—3 Report, presentation	Case study

2	<b>Module 1</b> General issues of infectious diseases. <b>Module 2</b> Particular issues of infectious diseases <b>Module 3</b> Clinical and laboratory syndromes in the clinic of infectious diseases. Diagnosis and treatment of emergency conditions	PC-5 the readiness to collect and to analyze patient complaints, data of its history , the results of laboratory, instrumental postmortem and other examinations in order to recognize the incidence or the absence of diseases	Knows	PT-1 Test	Exam Questions 1-100
			Is able to	Case study	Case study
			Possesses	EP—3 Report, presentation	Case study
3	<b>Module 1</b> General issues of infectious diseases. <b>Module 2</b> Particular issues of infectious diseases <b>Module 3</b> Clinical and laboratory syndromes in the clinic of infectious diseases. Diagnosis and treatment of emergency conditions	PC-6 the ability of determining the patient's basic pathological conditions , symptoms,syndromes, diseases in accordance with the International Statistical Classification of Diseases and problems related to health , the 10th review.	Knows	PT-1 Test	Exam Questions 1-40
			Is able to	Case study	Case study
			Possesses	EP—3 Report, presentation	Case study
4	<b>Module 1</b> General issues of infectious diseases. <b>Module 2</b> Particular issues of infectious diseases <b>Module 3</b> Clinical and laboratory syndromes in the clinic of infectious diseases. Diagnosis and treatment of emergency conditions	PC-8 the ability to determining the tactics of patient surveillance with different nosological entities	Knows	PT-1 Test	Exam Questions 1-100
			Is able to	Case study	Case study
			Possesses	EP—3 Report, presentation	Case study
5	<b>Module 1</b> General issues of infectious diseases. <b>Module 2</b> Particular issues of infectious diseases <b>Module 3</b> Clinical and laboratory syndromes in the clinic of infectious diseases. Diagnosis and treatment of emergency conditions	PC-10 the willingness to deliver medical first aid in case of sudden acute diseases and conditions, exacerbation of a chronic disease , which are not life-threatening and do not require emergency medical assistance	Knows	PT-1 Test	Exam Questions 1-40
			Is able to	Case study	Case study
			Possesses	EP—3 Report, presentation	Case study

## The scale of assessment the level of formation of competences

Code and the wording of competence	Stages of competence		Criteria	Indicators	Points
<p>GPC-8</p> <p>- the readiness for medical use of drugs and other medical substances and their combinations in solving professional problems</p>	Knows	the classification and main characteristics of drugs, pharmacodynamics and pharmacokinetics, indications and contraindications to the use of drugs, side effects; general principles of receptor design and formulation of prescription medicinal formulations.	Knows the basics of clinical pharmacology	Classification, mechanism of action, indications and contraindications for prescribing drugs	65-71
	Is able to	to analyze the effect of drugs on the basis of their pharmacological properties and the possibility of their using for therapeutic treatment; write prescriptions for medicines, use different medicines, apply basic antibacterial, antiviral and biological preparations; evaluate the possible manifestations of overdose of drugs and how to eliminate them; substantiate the principles of pathogenetic therapy of the most common diseases.	Able to use drugs for therapeutic treatment	Recommendations of drugs for etiotropic, pathogenetic and symptomatic treatment of diseases	71-84
	Possesses	skills in the use of drugs in the treatment, rehabilitation and prevention of various diseases and pathological conditions.	Owns the skills of prescribing drugs for the intended purpose.	Treatment plan	85-100

<p>the readiness to collect and to analyze patient complaints, data of its history, the results of laboratory, instrumental, postmortem and other examinations to recognize the incidence or the absence of diseases (PC – 5)</p>	<p>Knows</p>	<p>the etiology, diagnosis, treatment and prevention of infectious diseases; the clinical signs, features of the course and possible complications of infectious diseases occurring in typical form; modern methods of clinical instrumental diagnosis of patients infection profile; features of the collection of pathological materials; precautions; special clothing; basic principles of diagnosis, treatment and rehabilitation of infectious diseases, indications for hospitalization with infectious diseases; principles of follow-up observation, rehabilitation of infectious patients; implementation of specific and nonspecific prevention of infectious diseases.</p>	<p>Knows the etiology, epidemiology, pathogenesis, clinical picture of infectious diseases</p>	<p>Classification, etiology, epidemiology, pathogenesis, clinical symptoms of infectious diseases</p>	<p>65-71</p>
	<p>Is able to</p>	<p>participate in the organization and provision of medical - preventive and sanitary anti-epidemic, prophylactic and rehabilitation assistance to the population with infectious diseases; interpret the results of the survey, make a preliminary diagnosis, outline the scope of additional studies to clarify the diagnosis;</p>	<p>Formulate a preliminary diagnosis. Recommend laboratory and instrumental examinations. Outline a treatment plan and preventive measures.</p>	<p>The appointment of a preliminary plan for the examination and treatment of diseases.</p>	<p>71-84</p>

		formulate a clinical diagnosis; develop a treatment plan taking into account the course of the disease, select and appoint drug therapy, use methods of non-drug treatment, to conduct rehabilitation measures.			
	Possesses	the interpretation of the results of laboratory, instrumental methods of diagnosis with infectious disease; algorithm for making a preliminary diagnosis with the subsequent direction to additional examination and to specialist doctors; an algorithm for making a comprehensive clinical diagnosis of patients; the algorithm for the implementation of the main medical diagnostic and therapeutic measures to provide first medical aid in emergency and life-threatening conditions for infectious diseases.	Owns the skills of formulating a clinical diagnosis, according to the ICD. Given the results of the survey	The formulation of the clinical diagnosis. Appointment of a survey plan, treatment and preventive measures.	85-100
PC-6 ability to determining the patients basic pathological conditions, symptoms, syndromes, diseases, clinical entities, in accordance with the International Statistical Classification of Diseases and	Knows	the clinical signs, features of the course and possible complications of the most common infectious diseases; modern classification of infectious diseases; criteria for the diagnosis of infectious diseases.	Clinical symptoms and syndromes of infectious diseases	Clinical criteria for infectious diseases	65-71
	Is able to	determine the patients basic pathological	Identify symptoms and syndromes of	Diagnosis of infectious disease syndromes	71-84

Related Health X review		conditions, symptoms, syndromes, diseases, nosologic forms; formulate a topical diagnosis; to make preliminary and final diagnoses with a reflection of the etiology, course, nature and degree of dysfunction; outline the scope of additional studies to clarify the diagnosis and obtain a reliable result.	infectious diseases		
	Possesses	basic skills of algorithm of the developed clinical diagnosis.	Skills to identify and determine pathological conditions in infectious patients	Detailed clinical diagnosis according to the modern ICD	85-100
the ability to determining the tactics of patient surveillance with different nosological entities. (PC – 8)	Knows	methods of treating patients with infectious diseases; the mechanism of action of the main groups of drugs; medical indications and contraindications to their use; complications caused by their use.	Methods of treatment of infectious diseases, indications for prescribing drugs	Methods of etiotropic, pathogenetic and symptomatic treatment of infectious diseases	65-71
	Is able to	develop a plan of therapeutic measures for various infectious diseases; select an individual type of care for the patient in accordance with the situation: primary care, ambulance, hospitalization; formulate indications for the chosen method of treatment, taking into account etiotropic and pathogenetic means, to justify pharmacotherapy in a particular patient with the main pathological syndromes, to	Formulate a list of therapeutic measures in accordance with the situation	Justification of the type of care and therapeutic measures for a particular patient	71-84

		determine the route of administration, the regimen and dose of drugs carry out the appointment of drug therapy for children, taking into account the clinical picture of the disease.			
	Possesses	the tactics of managing patients with various nosological forms.	Skills of rendering the medical help at infectious diseases	Prescribing treatment to a specific patient	85-100
the willingness to deliver medical first aid in case of sudden acute diseases and conditions, exacerbation of a chronic disease , which are not life-threatening and do not require emergency medical assistance (PC – 10)	Knows	methods of treating patients with infectious diseases; the mechanism of action of the main groups of drugs; medical indications and contraindications to their use; complications caused by their use.	Rules for the provision of health care for acute diseases, exacerbation of chronic diseases that are not accompanied by a threat to the patient's life	Methods of providing health care in acute diseases, exacerbation of chronic diseases that are not accompanied by a threat to the patient's life.	65-71
	Is able to	select an individual type of care for the patient in accordance with the situation: primary care, ambulance, hospitalization; formulate indications for the chosen method of treatment, taking into account etiotropic and pathogenetic means, to justify pharmacotherapy in a particular patient with the main pathological syndromes, to determine the route of administration, the regimen and dose of drugs carry out the appointment of drug therapy for children, taking into account the clinical picture of the disease.	Formulate a plan of therapeutic measures in conditions that are not accompanied by a threat to life and do not require emergency medical care.	Treatment plan	71-84
	Possesses	skills the	Skills of	Do not require	85-100

		willingness to manage and treat patients with various nosological forms.	providing primary health care in conditions that are not accompanied by life and do not require emergency medical care.	emergency medical care.	
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## **Evaluation tools for intermediate certification**

### **Offset content (9 semester)**

1. Classification of infectious diseases.
2. Infection process, forms, stages of development.
3. Clinical forms of infectious diseases, the most characteristic syndromic manifestations of infectious diseases.
4. General principles of treatment of infectious diseases, groups of drugs, indications for their use.
5. The mechanism of transmission: definition, stage, species. Ways of transmission, give examples on specific infectious diseases.
6. The system of epidemiological surveillance of infectious diseases at the present stage (goals, activities).
7. Jaundice syndrome in the clinic of infectious diseases, the principles of examination of patients.
8. Meningeal syndrome in the clinic of infectious diseases, the principles of examination of patients.
9. Exanthema syndrome in the clinic of infectious diseases. Characterization of skin rashes.
10. Fever syndrome in the clinic of infectious diseases, the principles of examination of patients.
11. Diarrhea syndrome in the clinic of infectious diseases, the principles of examination of patients.
12. Emergency conditions in the clinic of infectious diseases. Acute stenosis of the larynx - croup, etiology, clinic, pathogenesis, treatment.



13. Infectious - toxic shock in the clinic of infectious diseases, pathogenesis, clinic, diagnosis, physician tactics.

14. Hypovolemic shock in acute intestinal infections, pathogenesis, clinic, doctor's tactics.

15. The device and mode of infectious diseases hospitals. Rules for admission and discharge of infectious patients from hospitals.

16. Nosocomial infections: etiology, epidemiology, pathogenesis, prevention.

17. Particularly dangerous infections, characterization. Features of the organization and mode of the hospital for patients with especially dangerous infectious diseases.

18. Concepts about the infectious process, infectious disease, carriage of the infectious agent. Modern environmental aspects of the infectious process.

19. Basic principles of treatment of infectious patients.

20. Etiotropic therapy in the clinic of infectious diseases.

21. Cabinet of infectious diseases, importance, function. Rules of referring infectious patients to the hospital. Clinical examination of patients with infectious diseases.

22. Use in the clinic of infectious diseases therapeutic sera, vaccines, immunoglobulins. Indications. Complications.

23. The doctrine of natural focal diseases. The value of ecology in the occurrence of natural focal diseases in the Primorsky Territory.

24. Pathogenetic therapy in the complex treatment of infectious patients.

25. Complications of treatment of infectious patients. drug disease, clinic, classification, tactics of the doctor.

26. Clinical forms of infectious diseases. Recurrences, exacerbations. Lead on specific infectious diseases.

27. Features of the current course of infectious diseases (acute, protracted and chronic).

28. Prevention of infectious diseases (types, methods).
29. Immunological basis of the infectious process. The value of the microorganism in the formation of infectious diseases.
30. The importance of epidemiological history in the diagnosis of infectious diseases (give examples of specific infectious diseases).
31. The use of immunotropic drugs in the clinic of infectious diseases, indications, contraindications.
32. Methods of laboratory diagnosis of infectious diseases (use for specific infectious diseases).
33. Clinical - pathogenetic features of infectious diseases.
34. The value of the etiological agent in the infectious process.
35. DIC - syndrome in the clinic of infectious diseases. Pathogenesis, diagnosis, treatment principles.
36. The concept of slow human infections.
37. Helminthiasis person. Classification, features of pathogenesis, diagnosis.
38. Serum sickness. Pathogenesis, clinic, treatment.
39. Anaphylactic shock, definition, pathogenesis, clinic, treatment.
40. Acute renal failure in the clinic of infectious diseases, pathogenesis, diagnosis, treatment.
41. Acute respiratory failure in the clinic of infectious diseases, pathogenesis, clinic, diagnosis, treatment.
42. Differential diagnosis of lymphadenopathy syndrome in infectious diseases.
43. Etiology, epidemiology, pathogenesis, clinical features of modern typhoid fever.
44. Clinical, epidemiological and laboratory diagnosis of typhoid fever.
45. Pat. anatomy and clinic of typhoid fever. Classification.
46. Complications of typhoid fever. Clinic, diagnosis, treatment.

47. Early clinical and laboratory diagnosis of typhoid fever. Differential diagnosis.

48. Clinical features of paratyphoid A and paratyphoid B, laboratory diagnosis and treatment.

49. Differential diagnosis of bacterial dysentery with cholera, salmonellosis, food toxicoinfections, ulcerative colitis.

50. Clinic of bacterial dysentery. Complications, their diagnosis.

51. Etiology, epidemiology, pathogenesis, laboratory diagnosis of acute dysentery. Morphological changes in the intestines.

52. Modern treatment, prevention of bacterial dysentery.

### **Questions for the exam (10 semester)**

#### **A COMMON PART**

1. Classification of infectious diseases.

2. Infection process, forms, stages of development.

3. Clinical forms of infectious diseases, the most characteristic syndromic manifestations of infectious diseases.

4. General principles of treatment of infectious diseases, groups of drugs, indications for their use.

5. The mechanism of transmission: definition, stage, species. Ways of transmission, give examples on specific infectious diseases.

6. The system of epidemiological surveillance of infectious diseases at the present stage (goals, activities).

7. Jaundice syndrome in the clinic of infectious diseases, the principles of examination of patients.

8. Meningeal syndrome in the clinic of infectious diseases, the principles of examination of patients.

9. Exanthema syndrome in the clinic of infectious diseases. Characterization of skin rashes.

10. Fever syndrome in the clinic of infectious diseases, the principles of examination of patients.

11. Diarrhea syndrome in the clinic of infectious diseases, the principles of examination of patients.

12. Emergency conditions in the clinic of infectious diseases. Acute stenosis of the larynx - croup, etiology, clinic, pathogenesis, treatment.

13. Infectious - toxic shock in the clinic of infectious diseases, pathogenesis, clinic, diagnosis, physician tactics.

14. Hypovolemic shock in acute intestinal infections, pathogenesis, clinic, doctor's tactics.

15. The device and mode of infectious diseases hospitals. Rules for admission and discharge of infectious patients from hospitals.

16. Nosocomial infections: etiology, epidemiology, pathogenesis, prevention.

17. Particularly dangerous infections, characterization. Features of the organization and mode of the hospital for patients with especially dangerous infectious diseases.

18. Concepts about the infectious process, infectious disease, carriage of the infectious agent. Modern environmental aspects of the infectious process.

19. Basic principles of treatment of infectious patients.

20. Etiotropic therapy in the clinic of infectious diseases.

21. Cabinet of infectious diseases, importance, function. Rules of referring infectious patients to the hospital. Clinical examination of patients with infectious diseases.

22. Use in the clinic of infectious diseases therapeutic sera, vaccines, immunoglobulins. Indications. Complications.

23. The doctrine of natural focal diseases. The value of ecology in the occurrence of natural focal diseases in the Primorsky Territory.

24. Pathogenetic therapy in the complex treatment of infectious patients.

25. Complications of treatment of infectious patients. drug disease, clinic, classification, tactics of the doctor.
26. Clinical forms of infectious diseases. Recurrences, exacerbations. Lead on specific infectious diseases.
27. Features of the current course of infectious diseases (acute, protracted and chronic).
28. Prevention of infectious diseases (types, methods).
29. Immunological basis of the infectious process. The value of the microorganism in the formation of infectious diseases.
30. The importance of epidemiological history in the diagnosis of infectious diseases (give examples of specific infectious diseases).
31. The use of immunotropic drugs in the clinic of infectious diseases, indications, contraindications.
32. Methods of laboratory diagnosis of infectious diseases (use for specific infectious diseases).
33. Clinical - pathogenetic features of infectious diseases.
34. The value of the etiological agent in the infectious process.
35. DIC - syndrome in the clinic of infectious diseases. Pathogenesis, diagnosis, treatment principles.
36. The concept of slow human infections.
37. Helminthiasis person. Classification, features of pathogenesis, diagnosis.
38. Serum sickness. Pathogenesis, clinic, treatment.
39. Anaphylactic shock, definition, pathogenesis, clinic, treatment.
40. Acute renal failure in the clinic of infectious diseases, pathogenesis, diagnosis, treatment.
41. Acute respiratory failure in the clinic of infectious diseases, pathogenesis, clinic, diagnosis, treatment.
42. Differential diagnosis of lymphadenopathy syndrome in infectious diseases.

## SPECIAL PART

1. Etiology, epidemiology, pathogenesis, clinical features of modern typhoid fever.
2. Clinical - epidemiological and laboratory diagnosis of typhoid fever.
3. Pat. anatomy and clinic of typhoid fever. Classification.
4. Complications of typhoid fever. Clinic, diagnosis, treatment.
5. Early clinical and laboratory diagnosis of typhoid fever. Differential diagnosis.
6. Clinical features of paratyphoid A and paratyphoid B, laboratory diagnosis and treatment.
7. Differential diagnosis of bacterial dysentery with cholera, salmonella, foodborne toxicoinfections, ulcerative colitis.
8. Clinic of bacterial dysentery. Complications, their diagnosis.
9. Etiology, epidemiology, pathogenesis, laboratory diagnosis of acute dysentery. Morphological changes in the intestines.
10. Modern treatment, prevention of bacterial dysentery.
11. Etiology, epidemiology, pathogenesis, classification of salmonellosis.
12. Clinic, classification, laboratory diagnosis of localized forms of salmonellosis, treatment.
13. Clinic of generalized forms of salmonellosis, complications. Treatment.
14. Etiology, epidemiology, pathogenesis, botulinum clinic.
15. Clinical - epidemiological and laboratory diagnosis, treatment of botulism.
16. Etiology, epidemiology, pathogenesis, cholera clinic.
17. Clinical, epidemiological and laboratory diagnosis of cholera.
18. Treatment and prevention of cholera.
19. Differential diagnosis of cholera with salmonella, dysentery, foodborne diseases.

20. Ascariasis. Clinic, pathogenesis, diagnosis, treatment.
21. Enterobiasis. Clinic, pathogenesis, diagnosis, treatment.
22. Trichinosis. Etiology, epidemiology, pathogenesis, clinic.
23. Diphyllbothriasis (wide lentez invasion). Clinic, treatment, prevention.
24. Teniarinhoz (bull chain infestation). Clinic, treatment, prevention.
25. Trichinosis, clinical, epidemiological and laboratory diagnostics.

Treatment.

26. Food toxicoinfections. Etiology, epidemiology, classification, clinic, treatment principles.

27. Salmonellosis. Differential diagnostics with dysentery, cholera, food toxicoinfections.

28. Botulism. Differential diagnosis.

29. Etiology, epidemiology, pathogenesis of viral hepatitis A.

30. Clinic of viral hepatitis A. Classification, outcomes and complications.

31. Laboratory diagnosis of viral hepatitis A by periods of the disease by different methods.

32. Etiology, epidemiology, pathogenesis, classification of acute viral hepatitis B.

33. Etiology, pathogenesis and blade of viral hepatitis C.

34. Pathogenesis, clinic and marker diagnosis of chronic viral hepatitis B.

35. Marker diagnosis of viral hepatitis A by period.

36. Marker diagnosis of acute and chronic viral hepatitis B by period (ELISA and PCR methods).

37. Marker diagnosis of acute and chronic viral hepatitis C by period (ELISA and PCR methods).

38. Treatment and prevention of viral hepatitis A.

39. Treatment and prevention of acute and chronic viral hepatitis B.

40. Treatment and prevention of acute and chronic viral hepatitis C.

41. Viral hepatitis D. Etiology, epidemiology, pathogenesis, clinic, classification.
42. Outcomes and complications of parenteral viral hepatitis, clinic, diagnosis.
43. Classification of viral hepatitis. Principles of laboratory diagnosis.
44. Liver cirrhosis in the outcome of viral hepatitis. Etiology, epidemiology, clinic, diagnosis.
45. Acute hepatic encephalopathy (coma), etiology, pathogenesis, clinic, treatment.
46. Differential diagnosis of viral hepatitis and obstructive jaundice caused by gallstone disease, oncological diseases of the hepato-pancreato-duodenal zone.
47. Differential diagnosis of viral hepatitis with toxic (alcoholic, medicinal) hepatitis.
48. Etiology, epidemiology, pathogenesis, laboratory diagnosis of influenza.
49. Clinic, classification of influenza. Complications, classification, diagnosis.
50. Modern treatment of influenza and its complications.
51. Adenovirus infection, clinic, diagnosis, treatment.
52. Parainfluenza, etiology, clinic, diagnosis, treatment. False croup, concept, emergency aid.
53. Epidemiology, pathogenesis, clinical picture and diagnosis of meningococcal meningitis.
54. Laboratory diagnosis, treatment and complications of meningococcal meningitis.
55. Meningococcal infection. Etiology, epidemiology, pathogenesis, clinical classification.
56. Pathogenesis, clinical, epidemiological and laboratory diagnosis of meningococceemia, treatment.



57. Differential diagnosis of meningococcal meningitis with tuberculous meningitis, hemorrhage in the brain, other purulent meningitis.
58. Etiology, epidemiology, pathogenesis of epidemic typhus.
59. Modern typhus (Brill's disease).
60. Clinic, complications, laboratory diagnosis, treatment of epidemic typhus.
61. Tick-borne typhus. Etiology, pathogenesis, clinic, diagnosis, treatment.
62. Tick-borne borreliosis (Lyme disease), etiology, pathogenesis, clinic, diagnosis, treatment.
63. Differential diagnosis of tick bite infections.
64. Etiology, epidemiology, pathogenesis, clinic, malaria classification.
65. Clinical, epidemiological and laboratory diagnosis of three-day malaria.
66. Etiology, pathogenesis and clinical picture of tropical malaria.
67. Clinical, epidemiological and laboratory diagnosis of tropical malaria.
68. Treatment and prevention of malaria.
69. Tropical malaria. Clinic, complications, differential diagnosis, treatment.
70. Hemorrhagic fever with renal syndrome. Etiology, epidemiology, pathogenesis, laboratory diagnostics.
71. Clinic of hemorrhagic fever with renal syndrome. Complications, diagnosis, treatment.
72. Erysipelas. Etiology, pathogenesis, clinic, clinical classification, treatment.
73. Differential diagnosis of erysipelas with herpes infection, phlegmon, thrombophlebitis.
74. Tetanus. Etiology, epidemiology, pathogenesis, clinic.
75. Diagnosis of tetanus. Treatment. Prevention.
76. Etiology, epidemiology, pathogenesis, classification of brucellosis.
77. Clinic, laboratory diagnosis, treatment of brucellosis.
78. Plague. Etiology, epidemiology, pathogenesis, classification.

79. Clinical, epidemiological and laboratory diagnosis of the bubonic form of plague.

80. Clinical, epidemiological and laboratory diagnosis of pulmonary plague.

81. Clinical classification, differential diagnosis of plague.

82. Tularemia. Etiology, epidemiology, pathogenesis, clinic, diagnosis, treatment.

83. Anthrax. Etiology, epidemiology, pathogenesis, clinic, laboratory diagnostics.

84. Clinical classification of anthrax, differential diagnosis, treatment.

85. Leptospirosis. Etiology, pathogenesis, clinic, diagnosis, treatment. Differential diagnosis with other natural focal diseases.

86. Yersiniosis. Etiology, epidemiology, pathogenesis, clinic, diagnosis.

87. Yersiniosis. Classification. Differential and laboratory diagnostics, treatment.

88. Infectious mononucleosis. Etiology, pathogenesis, clinic, differential diagnosis, treatment.

89. Diphtheria. Clinic of localized form of diphtheria oropharynx. Laboratory and differential diagnosis with angina.

90. Clinic of toxic diphtheria of the oropharynx. Differential and laboratory diagnostics, treatment.

91. Rabies. Etiology, epidemiology, clinic, prevention.

92. HIV infection. Etiology, epidemiology, pathogenesis.

93. HIV infection. Clinic and treatment of opportunistic infections.

94. Clinical classification of HIV infection. The main symptoms of acute retroviral syndrome. Laboratory diagnosis.

95. Clinic of terminal stage of HIV infection. laboratory diagnosis, treatment.

96. Diphtheria. Etiology, epidemiology, pathogenesis, classification.

97. Diphtheria. Treatment. Prevention.

98. HIV infection. Clinic, classification, laboratory diagnostics.

99. Herpetic human infection. Classification. Pathogenesis, clinic, diagnosis, treatment.

100. Amoebiasis. Etiology, pathogenesis, classification, clinic, diagnosis, treatment.

**Scoring criteria on the student competition on the subject  
«Infectious Diseases»**

<b>Points (rating)</b>	<b>Evaluation offset/exam (standard)</b>	<b>Requirements to the formed competences</b>
86-100	<i>«credited»/ «excellent»</i>	The rating of «excellent» to the students, if it is deeply and firmly mastered the program material, comprehensively, consistently, accurately and logically sound it sets, can be closely linked theory with practice, freely to cope with questions and other types of application knowledge is not difficult to answer at modification jobs has versatile skills and techniques perform practical tasks.
76-85	<i>«credited»/ «good»</i>	The rating of «good» to the students, if he knows for sure the material correctly and essentially sets out its not allowing significant inaccuracies in answering the question correctly applies the theoretical principles in solving practical issues and challenges, has the necessary skills and techniques for their implementation.
51-75	<i>«credited»/ «satisfactory»</i>	The rating of «satisfactory» to the students, if he has knowledge of only the base material, but did not learn his parts, admits inaccuracies, insufficient correct wording violations of logical consistency in the presentation of program material, has difficulty in carrying out practical work.
Less 50	<i>«fail»/ «unsatisfactory»</i>	The rating of «unsatisfactory» to the students, who did not know a large part of the program material, allows substantial errors, uncertainly, with great difficulty performing practical work.

## Typical estimates of funds for the current certification

### Test papers

**1. The infectivity of chickenpox lasts for:**

- (a) Till the last scab falls off
- (b) 6 days after onset of rash
- (c) 3 days after onset of rash
- (d) Till the fever subsides

**2. Chickenpox is characterised by all except:**

- (a) Scabs are infective
- (b) Pleomorphic stages
- (c) Rashes symmetrical centripetal dew-drop like
- (d) Palms and soles not affected by rash

**3. Smallpox eradication was successful due to all of the following reasons except:**

- (a) Subclinical cases did not transmit the disease
- (b) A highly effective vaccine was available
- (c) Infection provided lifelong immunity
- (d) Cross-resistance existed with animal pox

**4. All of the following are true about Varicella virus except:**

- (a) 10-30% chances of occurrence
- (b) All stages of rash are seen at the same time
- (c) Secondary attack rate is 90%
- (d) Rash commonly seen in flexor area

**5. Smallpox eradication was successful due to all of the following reasons except:**

- (a) Subclinical cases did not transmit the disease
- (b) A highly effective vaccine was available
- (c) Infection provided lifelong immunity
- (d) Cross-resistance existed with animal pox

**6. WHO declared global eradication of Small pox on:**

- (a) 26th October 1977
- (b) 5th July 1975
- (c) 17th May 1975
- (d) 8th May 1980

**7. Secondary attack rate of chicken pox is:**

- (a) 60
- (b) 50
- (c) 90
- (d) 40

**8. Chicken pox vaccine is:**

- (a) Live vaccine
- (b) Killed vaccine
- (c) Conjugated vaccine
- (d) Toxoid vaccine

**9. Chicken pox is infective**

- (a) 2 days before and 2 days after rash appearance
- (b) 2 days before and 5 days after rash appearance
- (c) 4 days before and 4 days after rash appearance
- (d) 4 days before and 5 days after rash appearance

**Review Questions**

**10. Infectivity of Chickenpox lasts up to:**

- (a) 3 days after rash
- (b) All the scabs fallout
- (c) 6 days after rash
- (d) Eruption of rash

**11. All are true about chickenpox except:**

- (a) Crusts contain live virus
- (b) Centripetal in distribution
- (c) Pleomorphic rashes seen
- (d) Rapid progression from macule to vesicle

**12. About chickenpox all are true except:**

- (a) Lesions appear in crops
- (b) Centripetal distribution of rashes
- (c) Rashes shows rapid progression from macule to vesicle
- (d) Crusts contain live virus

**MEASLES**

**13. Which of the following is not true of Measles?**

- (a) High secondary attack rate
- (b) Only one strain causes infection
- (c) Not infectious in pro-dromal stage
- (d) Infection confers lifelong immunity

**14. Which of the following is the 'Least common' complication of measles?**

- (a) Diarrhea
- (b) Pneumonia
- (c) Otitis media
- (d) SSPE

**15. Which of the following statements is true about the epidemiological determinants of measles?**

- (a) Measles virus survives outside the human body for 5 days

- (b) Carriers are important sources of infection
- (c) Secondary attack rate is less than that of rubella
- (d) Incidence of measles is more in males than females

**16. True about measles is all except:**

- (a) Kopliks spots appear as rash disappears
- (b) It is prevented by both active and passive immunization
- (c) Otitis media and meningitis are the most common complications
- (d) TB is aggravated in post measles

**17. All are true regarding measles vaccine except:**

- (a) Freeze dried live attenuated vaccine
- (b) Single intramuscular dose of 0.5 ml
- (c) Is occasionally associated with TSS
- (d) Contraindicated in pregnancy

**18. Which of the following is the reservoir for measles?**

- (a) Man
- (b) Soil
- (c) Fomites
- (d) Monkey

**19. True about measles:**

- (a) Koplik spot appears in Prodromal stage
- (b) Fever stops after onset of Rash
- (c) Vaccine given at 9 months
- (d) It is not diagnosed when coryza and rhinitis is absent
- (e) Incubation period is 6 days

**20. Measles vaccination campaign between 9-14 years age for elimination is:**

- (a) Keep up
- (b) Follow up
- (c) Mop up
- (d) Catch up

**21. Koplik spots are seen in:**

- (a) Prodromal stage
- (b) Incubation
- (c) Eruptive
- (d) Convalescent stage

**22. Most serious complication of Measles is:**

- (a) Koplik spots
- (b) Parotitis
- (c) Meningoencephalitis
- (d) Nephritis

**23. Most common cause of death due to measles is**

- (a) **Pneumonia**
- (b) Secondary bacterial infection
- (c) Measles encephalitis
- (d) Otitis media

**Review Questions**

**24. To eradicate measles the percentage of infant population to be vaccinated is at least \_\_\_\_%:**

- (a) 70
- (b) 80
- (c) 85
- (d) 95

**25. Measles vaccine is not given before:**

- (a) 9 months
- (b) 12 months
- (c) 15 months
- (d) 18 months

**26. To eradicate measles the percentage of population to be vaccinated is at least \_\_\_\_%:**

- (a) 70
- (b) 80
- (c) 85
- (d) 95

**27. For measles:**

- (a) Incubation period is 10 days
- (b) Infectious 4 days before the rash
- (c) Koplik's spots are seen
- (d) All

**28. In measles Koplik spot is seen in:**

- (a) Prodromal stage
- (b) Postmeasles stage
- (c) Eruptive stage
- (d) None of the above

**29. Most common cause of post measles death:**

- (a) Diarrhea
- (b) RTI
- (c) Weakness
- (d) SSPE

**30. In Measles, infective period is:**

- (a) 3 days before and 4 days after the appearance of rash
- (b) 4 days before and 3 days after the appearance of rash
- (c) 4 days before and 5 days after the appearance of rash
- (d) 5 days before and 4 days after the appearance of rash

**31. The incubation period of Measles is:**

- (a) 3 days
- (b) 10 days
- (c) 21 days
- (d) 30 days

**32. All are true about measles except:**

- (a) Both active and passive immunization are given simultaneously
- (b) Flaring up of TB
- (c) Most infectious during rashes
- (d) Causes pneumonia and otitis media

**33. A baby was given a dose measles vaccine at 6 months of age due to epidemic of measles/malnutrition. Correct regarding giving subsequent dose will be:**

- (a) Give one more dose as soon as possible
- (b) Give after 14-16 months with booster dose
- (c) Give after 9 months age
- (d) No dose required

**34. Recommended vaccination strategy for rubella is to vaccinate first and foremost:**

- (a) Women 15-49yrs
- (b) Infants
- (c) Adolescent girls
- (d) Children 1-14yrs

**35. Risk of the damage of fetus by maternal rubella is maximum if mother gets infected in**

- (a) 6-12 weeks of pregnancy
- (b) 20-24 weeks of pregnancy
- (c) 24-28 weeks of pregnancy
- (d) 32-36 weeks of pregnancy

**36. Risk of the damage of fetus by maternal rubella is maximum if mother gets infected in:**

- (a) 6-12 weeks of pregnancy
- (b) 20-24 weeks of pregnancy
- (c) 24-28 weeks of pregnancy
- (d) 32-36 weeks of pregnancy

**37. All of the following statements are true about Congenital Rubella except:**

- (a) It is diagnosed when the infant has IgM antibodies at birth
- (b) It is diagnosed when IgG antibodies persist for more than 6 months



(c) Most common congenital defects are deafness, cardiac malformations and cataract

(d) Infection after 16 weeks of gestation results in major congenital defects

**38. MMR vaccine is recommended at the age of:**

(a) 9-12 months

(b) 15-18 months

(c) 2-3 years

(d) 10-19 years

**Review Questions**

**39. Rubella features include all except:**

(a) Tender lymphnodes in the neck

(b) Congenital infection with cataract

(c) Incubation period < 10 days

(d) Caused by RNA virus

**40. Under eradication of congenital rubella syndrome program the first priority group for rubella vaccination is:**

(a) All nonpregnant women of age 15-44 years

(b) All adolescent nonpregnant girls 15 to 24 of age

(c) All female children at one year

(d) All nonpregnant women

**41. False about congenital rubella syndrome:**

(a) IgG is diagnostic

(b) Most commonly associated with CVS anomalies, cataract and hearing loss

(c) High risk if infected after 16 weeks

(d) IgM antibodies may be seen shortly after birth

**MUMPS**

**42. M.C. complication of mumps in children is:**

(a) Pneumonia

(b) Pancreatitis

(c) Aseptic meningitis

(d) Encephalitis

**43. Incubation period of Mumps is:**

(a) 7 days (b) 10 days

(c) 14 days (d) 18 days

**INFLUENZA**

**44. Which of the following is not true about influenza virus?**

(a) Influenza virus A is subject to frequent antigenic variations

(b) Antigenic drift is a gradual antigenic change over a

period of time

(c) Antigenic shift is due to genetic recombination of virus

(d) Major epidemics are due to antigenic drift

**45. Newer Influenza vaccine include:**

(a) split – virus vaccine

(b) neuraminidase

(c) live attenuated vaccine

(d) killed vaccine

(e) Recombinant vaccine

**46. True about epidemiology of influenza:**

(a) Asymptomatic seen rarely

(b) Incubation period 10-12 hrs

(c) Pandemic rare

(d) Extra human reservoir not seen

(e) All ages and sex equally affected

**47. Which of the following is true about influenza:**

(a) Affects all ages and sexes

(b) I. P 18 – 72 hrs

(c) Pandemics rare

(d) Asymptomatics rare

(e) No animal reservoir

**48. Which of the following lead to an outbreak of Influenza in China in 2013?**

(a) H1N1 (b) H3N2

(c) H2N2 (d) H7N9

(e) H5N1

**49. Incubation period of swine flu:**

(a) 1-3 days (b) 2-3 weeks

(c) 10-15 days (d) 5 weeks

**50. Pig in H1N1 influenza acts as:**

(a) Carrier

(b) Amplifying host

(c) Reservoir

(d) Vector

**51. Major reason for H5N1 not to become a global pandemic is**

(a) Route of transmission is not respiratory

(b) Man to man transmission is rare

(c) Does not cause serious disease among humans

(d) Restricted to few countries only

**DIPHTHERIA**

**52. True about Diphtheria are all except:**

- (a) Carriers are more common sources of infection than cases
- (b) Incubation period is 2-6 days
- (c) 25 Lf of diphtheria toxoid are present per ml in DPT vaccine [AIIMS Nov 1996]
- (d) Diphtheria is an endemic disease in India

**53. Positive Schick test indicates:**

- (a) Immunity to diphtheria
- (b) Susceptibility to diphtheria
- (c) Hypersensitivity to diphtheria
- (d) Infection with diphtheria

**54. A herd immunity of over ..... % is considered necessary to prevent epidemic spread of diphtheria:**

- (a) 50%
- (b) 55%
- (c) 60%
- (d) 70%

**55. Management of non immunized diphtheria contacts include all except**

- (a) Prophylactic penicillin
- (b) Single dose of toxoid
- (c) Daily throat examination
- (d) Daily throat swab culture
- (e) Weekly throat swabs examination

**Review Questions**

**56. A herd immunity of over \_\_\_\_ % is considered necessary to prevent epidemic spread of diphtheria:**

- (a) 50%
- (b) 55%
- (c) 60%
- (d) 65%
- (e) 70%

**57. Treatment of choice for diphtheria carriers is:**

- (a) Erythromycin
- (b) Tetracycline
- (c) Penicillin
- (d) DPT

**58. Schick test does not indicate:**

- (a) Immunity to diphtheria
- (b) Susceptibility to diphtheria
- (c) Hypersensitivity to diphtheria

(d) Carrier of diphtheria

**59. Diphtheria carrier are diagnosed by:**

- (a) Throat culture
- (b) Gram's staining
- (c) Albert's staining
- (d) Schick test

**60. A Negative Schick test indicates:**

- (a) Immunity to Diphtheria
- (b) Susceptibility to Diphtheria
- (c) Immunity to Pertussis
- (d) Immunity to Mumps

### **WHOOPING COUGH**

**61. The usual incubation period for pertussis is:**

- (a) 7-14 days
- (a) 7-14 days
- (b) 3-5 days
- (c) 21-25 days
- (d) Less than 3 days

**62. Which of the following statements is true regarding pertussis?**

- (a) Neurological complication rate of DPT is 1 in 50000
- (b) Vaccine efficacy is more than 95%
- (c) Erythromycin prevents spread of disease between children
- (d) Leukocytosis correlates with the severity of cough

**63. True regarding pertussis is all except:**

- (a) It is associated with an inspiratory whoop
- (b) It is a droplet infection
- (c) Parapertussis causes more severe disease than pertussis
- (d) Pneumonia is most common complication

**64. True about Pertussis is/are:**

- (a) Incubation period is 7-14 days
- (b) Main source of infection is chronic carriers
- (c) Can affect any age
- (d) Secondary attack rate in unimmunised persons is 90%
- (e) More common in Summers

### **Review Questions**

**65. Treatment for pertussis contacts children for:**

- (a) Prophylactic antibiotic for 10 days
- (b) Prophylactic antibiotic for 14 days
- (c) Prophylactic antibiotic for 12 days
- (d) Prophylactic antibiotic for 11 days

**66. A child with pertussis should be isolated for:**

- (a) 1-2weeks
- (b) 2-4weeks
- (c) 3-4weeks
- (d) 4-6weeks

**67. About pertussis true is:**

- (a) Secondary attack rate 90%
- (b) No cross immunity with parapertussis
- (c) Most infectious during paroxysmal stage
- (d) Affects only humans

### **MENINGOCOCCAL MENINGITIS**

**68. True about meningococcal meningitis is:**

- (a) Causative agent is a gram –ve diplococci
- (b) Cases are the most important source of infection
- (c) Treatment with penicillin eradicates carrier state
- (d) Vaccine can be given in pregnancy

**69. The following statements about meningococcal meningitis are true, except:**

- (a) The source of infection is mainly clinical cases
- (b) The disease is more common in dry and cold months of the year
- (c) Chemoprophylaxis of close contacts of cases is recommended
- (d) The vaccine is not effective in children below 2 years of age

**70. Xavier and Yogender stay in the same hostel of the same university. Xavier develops infection with Group B meningococcus. After a few days, Yogender develops infection due to Group C meningococcus. All the following are true statements except:**

- (a) Educate students about meningococcal transmission and take preventive measures
- (b) Chemoprophylaxis against both Group B and Group C
- (c) Vaccine prophylaxis of contacts of Xavier
- (d) Vaccine prophylaxis of contacts of Yogender

**71. Vaccine for meningococcal meningitis should be routinely given to:**

- (a) Laboratory workers
- (b) Young adolescents
- (c) 4-8 years old children
- (d) Elderly population

**72. Prophylaxis of meningococcal meningitis is:**

- (a) Ciprofloxacin (b) Rifampicin

(c) Penicillin (d) Gentamycin

**73. WHO criteria for High endemicity for Meningococcal disease include:**

- (a) 0.1% (b) 0.01%
- (c) 0.001% (d) 1.0%

**74. Meningococcal vaccine available is:**

- (a) ACW135Y (b) ABCW135
- (c) CYW135B (d) ABCY

**Review Questions**

**75. The neurological complications of DPT are due to:**

- (a) Pertussis component
- (b) Diphtheria
- (c) Tetanus
- (d) All

**76. Chemoprophylaxis for meningococcal meningitis:**

- (a) Ampicillin
- (b) Tetracycline
- (c) Rifampicin
- (d) Erythromycin

**ARI**

**77. A 2-year-old female child was brought to a PHC with a history of cough and fever for 4 days with inability to drink for last 12 hours. On examination, the child was having weight of 5 kg and respiratory rate of 45/minute with fever. The child will be classified as suffering from:**

- (a) Very severe disease (b) Severe Pneumonia
- (c) Pneumonia (d) No Pneumonia

**78. A child aged 24 months was brought to the Primary Health Centre with complaints of cough and fever for the past 2 days. On examination, the child weighed 11 Kg. respiratory rate was 38 per minute, chest indrawing was present. The most appropriate line of management for this patient is?**

- (a) Classify as pneumonia and refer urgently to secondary level hospital
- (b) Classify as pneumonia, start antibiotic and advise to report after 2 days
- (c) Classify as severe pneumonia, start antibiotics and refer urgently
- (d) Classify as severe pneumonia and refer urgently

**79. Most important feature to diagnose severe pneumonia:**

- (a) Cyanosis (b) Chest indrawing
- (c) Nasal flaring (d) Fast breathing

**80. A 10 month old child is brought to a PHC with history of cough and cold. On examination, he has respiratory rate of 48 breaths per minute and there is absence of chest indrawing. His weight is 5 kg. He is probably suffering from**

- (a) No pneumonia
- (b) Pneumonia
- (c) Severe pneumonia
- (d) Very severe pneumonia

**81. Not evaluated in Clinical evaluation pneumonia at PHC**

- (a) Respiratory rate
- (b) Inability to feed
- (c) Oxygen saturation
- (d) Chest in drawing

#### **Review Questions**

**82. Respiratory rate can be diagnosed as fast breathing in a less than 2-month-old infant, if respiratory rate/minute is more than:**

- (a) 29 (b) 39
- (c) 49 (d) 59

#### **TUBERCULOSIS**

**83. All of the following are the targets of STOP TB STRATEGY partnership except:**

- (a) Achieve a diagnosis rate  $> 70\%$  and cure rate  $> 85\%$  (by 2005)
- (b) Reduce prevalence to  $< 150$  per 100,000 population per year (by 2010)
- (c) Lower deaths to  $< 1$  per 100,000 population per year (by 2010)
- (d) Global incidence of TB disease  $< 1$  case per million population per year

**84. If the objective of the investigator is to assess the incidence of tuberculosis infection in a community, the most appropriate methodology would be to:**

- (a) Identify all individuals with positive tuberculin test
- (b) Perform sputum examination of chest symptomatics
- (c) Identify new converters to Tuberculin test
- (d) Screen all under-five children with Tuberculin test

**85. Point of control in tuberculosis the infection is:**

- (a) < 1% in 0-14 group of children
- (b) > 1% in all children 0-5 yrs age group
- (c) < 1% in 15-49 of age group
- (d) < 2% in 0-14 group

**86. Which of the following is true about tuberculin test?**

- (a) It gives the immune status of patient
- (b) It may be negative in dissociated tuberculosis
- (c) It tells about prior exposure to Mycobacterium tuberculosis only
- (d) It is highly positive in a post measles case

**87. The most appropriate test to assess the prevalence of tuberculosis infection in a community is:**

- (a) Mass Miniature Radiography
- (b) Sputum examination
- (c) Tuberculin Test
- (d) Clinical examination

**88. National Tuberculosis Institute is located at:**

- (a) New Delhi
- (b) Chingelput
- (c) Bangalore
- (d) Chennai

**89. Decrease in which of the following parameters indicate the decrease in tuberculosis problem in India?**

- (a) Incidence of infection
- (b) Prevalence of infection
- (c) Incidence of disease
- (d) Prevalence of disease

**90. The overall prevalence of tuberculosis infection in India as per 4th round of longitudinal survey was:**

- (a) 20%
- (b) 30%
- (c) 40%
- (d) 50%

**91. The percentage of positive Mantoux test in Indian if 20-40 yrs age group is:**

- (a) < 5% (b) 5 – 10%
- (c) 20 – 30% (d) > 50%
- (e) > 80%

**92. Population of a village on 1st June 2007 is 16,500. Since 1st January 2007, 22 new cases of TB were detected. Total registered cases were 220. what is the incidence of TB?**

- (a) 133 per 100, 000



- (b) 121 per 100,000
- (c) 111 per 100,000
- (d) 100 per 100,000

**93. Which of the following is not false about annual risk of TB?**

- (a) ARI of 1% = 75 new cases
- (b) Current ARI in India is 1.7%
- (c) It represents new cases of TB.
- (d) It is assessed by tuberculin conversion in previously non-vaccinated children

**94. McKneown's Theory states that reduced prevalence of Tuberculosis occurs due to:**

- (a) Enhanced knowledge and awareness
- (b) Medical advancements
- (c) Behavioural modification
- (d) Social and environmental factors

**95. A lactating woman has sputum positive Tuberculosis and her neonate child is 3 months old. What is the recommended chemoprophylaxis?**

- (a) INH 3mg/kg for 3 months
- (b) INH 5mg/kg for 3 months
- (c) INH 3mg/kg for 6 months
- (d) INH 5mg/kg for 6 months

**96. Antitubercular drug which causes Optic neuritis is:**

- (a) Ethambutol (b) Rifampicin
- (c) Isoniazid (d) Pyrizinamide

**97. Number of (+) for tubercle bacilli if count in AFB sample is > 10 per oil immersion fields?**

- (a) + (b) ++
- (c) +++ (d) Scanty

**98. One TB infected person can infect how many people in 1 year?**

- (a) 20 (b) 30
- (c) 10 (d) 5

**99. Incidence of TB in a community measured by:**

- (a) Sputum smear +
- (b) Tuberculin test +
- (c) Sputum culture
- (d) Mantoux test +

**100. The most appropriate test to assess the prevalence of tuberculosis infection in a community is:**

- (a) Mass miniature radiography

- (b) Sputum examination
- (c) Tuberculin test
- (d) Clinical examination

**101. Mycobacterium tuberculosis infection in humans is most common because of:**

- (a) Contact (b) Inhalation
- (c) Infiltration (d) Inoculation

**102. One of the following is known as Tuberculin Conversion Index:**

- (a) Incidence of infection
- (b) Prevalence of infection
- (c) Incidence of disease
- (d) Prevalence of disease

**103. Xpert MTB/RIF test is used to detect:**

- (a) For assessing resistance to isoniazid
- (b) For assessing multi drug resistant TB
- (c) For assessing rifampicin resistance
- (d) Monitoring drug response in MDR TB
- (e) Diagnosis of TB

**104. TB multidrug regimen is given to:**

- (a) Prevent resistance
- (b) Broad spectrum
- (c) Prevent side effects
- (d) None

**105. Sputum positive TB is:**

- (a) 1 out of 2 sputum sample +ve
- (b) 2 out of 3 sputum sample +ve
- (c) BACTEC +ve
- (d) Mantoux test positive

**106. Tuberculin positive means:**

- (a) Immunodeficient patient
- (b) Resistance to tuberculin protein
- (c) Patient is infected with mycobacterium
- (d) Patient is suffering from disease

**107. Sputum positive TB patients on chemotherapy should be isolated at least for**

- (a) 2 weeks
- (b) 3 weeks
- (c) 4 weeks
- (d) 6 weeks

**108. Contacts of Sputum positive tuberculosis patient who should be given preventive chemotherapy**

- (a) Pregnant women
- (b) Old people
- (c) Children above 6 years
- (d) Children below 6 years

**Review Questions**

**109. In T.B/ a 'case' is":**

- (a) Cough (b) Sputum positive
- (c) Mantoux positive (d) X-ray positive

**110. National tuberculosis institute is situated at:**

- (a) Bombay
- (b) Calcutta
- (c) Bangalore
- (d) Delhi

**111. Tuberculin unit is:**

- (a) 0.0001 mg
- (b) 1 unit of PPD RT3
- (c) 0.1 mg BCG
- (d) None of the above

**112. The most appropriate test to assess the prevalence of tuberculosis infection in a community is?**

- (a) Mass miniature radiography
- (b) Sputum examination
- (c) Tuberculin test
- (d) Clinical examination

**113. By WHO best criteria for TB diagnosis is:**

- (a) Sputum + ve
- (b) Chest pain
- (c) Cough – 3 weeks
- (d) X-ray finding

**114. A case of TB a/c to WHO is detected by:**

- (a) Sputum exam
- (b) Mass Miniature radiography
- (c) Montoux test
- (d) Elisa

**115. True about tuberculosis-:**

- (a) >104 bacilli are required in sputum for detection
- (b) Mantoux test can differentiate between BCG and infection
- (c) Can be grown on ordinary culture media
- (d) Drug sensitivity is tested by schick test

**116. In tuberculosis combination of Antimicrobials is used:**

- (a) To delay the development of resistance
- (b) To reduce toxicity

- (c) To Broaden anti-bacterial spectrum
- (d) To prevent Liberation of toxins from organisms

**117. Number of sputum positive cases of tuberculosis per lakh in India is:**

- (a) 75 (b) 50
- (c) 40 (d) 10

**118. BCG is:**

- (a) Live attenuated vaccine
- (b) Killed vaccine
- (c) Toxoid
- (d) Immunosuppressant agent

**119. 1 mL of expectoration contains what number of TB bacilli in an active case of TB?**

- (a) 100 (b) 1,000
- (c) 10,000 (d) 1,00,000

**120. In India, a tubercular mother is advised for all except:**

- (a) Give baby BCG
- (b) ATT to mother
- (c) With hold Breastfeeding
- (d) None of these

### **Evaluation tools for the current attestation**

**Control tests** are designed for the students studying the course "Infectious Diseases".

The tests are necessary for the control of knowledge during the current interim attestation, and for the evaluation of knowledge and thus to get credit for course.

While working with tests the student are asked to select one answer from the three - four proposed. At the same time the tests are not identical in their complexity.

Offered tests contain several variants of correct answers. The student must select all the correct answers.

The tests are designed both for individual and collective solving them. They can be used in the process both classroom lessons and independent work.

The tests, required for the control of knowledge, are chosen in the process of the intermediate certification by each teacher individually.

The results of the test tasks are evaluated by a teacher on a five-mark grading scale or system of "**credit**" - "**not credit**".

Evaluation of "**excellent**" is got by student at the correct answer to more than 90% of the proposed tests.

Evaluation of "**good**" getting - at the correct answer by more than 70% of tests.

Evaluation of "**satisfactory**" - at the correct answer to 50% of the offered tests.