Ministry of science and high education RF Ulyanovsk State University	Form	
F-Educational plan of the dicipline	PA	
Institute of A	APPROVEI on of the Academic Council of the Medicine, Ecology and Physical Cu 17 05 2023 Record No. 9/250 m_Midlenko V.I	USU 1lture
	«17»_May2023.	

#### EDUCATIONAL PLAN

Discipline	Infectious diseases
Faculty	Medical faculty of T.Z. Biktimirov
Name of department	Dermatology and Infectious Diseases
Course	V

full name

Direction (specialty) 31.05.01 General medicine

the code of the direction (specialty), full name Orientation (profile/specialty) not provided

Form of training\_\_\_\_\_full-time \_\_\_\_\_\_full-time \_\_\_\_\_\_full-time, part-time, part-time (specify only those that are being implemented)

Date of introduction into the academic process at Ulyanovsk State University  $(-1)^{-1} = 09^{-1} = 2023^{-1}$ 

The program was updated at the meeting of the department:  $N_{0} 1$  of \_29.08.2023. The program was updated at the meeting of the department:  $N_{0} 10$  of \_22.05.2024.

Information about the authors:

Initials	Abbreviation of the	Degree,
	department	scientificrank
	Dermatology and	Associate
Ilmukhina Larisa Vladimrovna	Infectious Diseases	Professor, Ph.D.
Saranskaya Yana Evgenevna	Dermatology and	Senior lecturer
	Infectious Diseases	

Agreed	Agreed
Head of department, developing discipline	Head of the graduating Department
Signature /A.S. Nesterov / Full name	/Vize-KhripunovaM.A/
«28»April2023	«_28»April2023

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#### 1. OBJECTIVES AND AIM OF

Objectives of mastering the discipline: the formation of knowledge, skills in collecting and analyzing patient complaints, data from his anamnesis, examination results, laboratory, instrumental, pathological and anatomical and other studies in order to recognize a condition or establish the presence or absence of an infectious disease in order to conduct its early diagnosis and detection of an infectious disease in a polyclinic and at home; for carrying out a complex of treatment and prophylactic measures at the prehospital stage and in the treatment of infectious patients at home; for the diagnosis of emergency conditions and the provision of medical care to infectious patients at the pre-hospital stage.

The process of mastering the discipline "Infectious Diseases" is aimed at the formation of general professional (OPC-6, 7) and professional competencies (PC-2).

#### **Objectives of mastering the discipline:**

- training in early recognition of an infectious disease when examining a patient,
- differential diagnosis with other infectious and non-infectious diseases, proceeding with similar symptoms, based on their leading syndromes,
- training in the choice of optimal methods of laboratory and instrumental examination to confirm or refute the diagnosis of an infectious disease;
- training in carrying out the full scope of therapeutic and prophylactic measures when leaving patients with various nosological forms of infectious diseases at home;
- training in the timely recognition of dehydration, infectious-toxic, anaphylactic shocks, collapse, acute respiratory failure, croup, acute liver failure, acute renal failure, cerebral edema, bulbar disorders in botulism, emergency medical care at the prehospital and hospital stages and determination of tactics further medical care in case of emergency.

#### 2. PLACE OF THE SUBJECT IN THE STRUCTURE OF GEP:

The discipline "Infectious diseases" refers to the mandatory part of the disciplines (modules) B1.O.35 of the GEP of Higher Education in the specialty 31.05.01 " General medicine ".

The development of the discipline is based on the knowledge, skills and skills formed by previous disciplines and practices: topographic anatomy and operative surgery, general surgery, pharmacology, dentistry, dermatovenerology, obstetrics and gynecology, faculty therapy, psychiatry, medical psychology, propaedeutics of internal diseases, pathological anatomy, neurology, medical genetics, neurosurgery, otorhinolaryngology, pediatrics, faculty surgery, ophthalmology, endocrinology, hospital therapy.

The development of the discipline is necessary for the formation of knowledge and skills in the following disciplines: polyclinic therapy, anesthesiology, resuscitation, intensive care, clinical pharmacology, clinical psychology, assistant physician of an outpatient clinic, traumatology, orthopedics, hospital surgery, pediatric surgery, phthisiology, forensic medicine, oncology, radiation therapy, radiation diagnostics, modern aspects of neurology, topical issues of gynecology, modern aspects of oncology, topical issues of internal diseases, urology and andrology, diagnosis and treatment of extrapulmonary tuberculosis, surgical gastroenterology and endoscopy, clinical pathological anatomy, topical issues of HIV infection, clinical electrocardiography, assistant doctor of the inpatient department, preparation for passing and passing the state exam.

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#### 3. LIST OF EXPECTED RESULTS OF INSTRUCTION ON THE SUBJECT (UNIT), CORELATED WITH PLANNED RESULTS OF COMPLETING THE PROGRAM

The study of the subject «Infection disease» within the completion of the educational program is directed towards the formation of the following general and professional competences in students:

competences in students:	
Code and name of the general	Code and name of the indicator of achievement of general
professional competence	professional competence
OPC-6. Able to organize patient	Know: the functional responsibilities of junior medical
care, provide primary health care,	staff, ward and procedural nurses; deontological aspects of
ensure the organization of work and	patient care, the foundations of the legislation of the
the adoption of professional	Russian Federation on the protection of public health, the
decisions in emergency conditions at	main regulatory and technical documents; basic principles
the prehospital stage, in emergency	of management and organization of medical care to the
situations, epidemics and in centers	population; the fundamentals of legislation on the sanitary
of mass destruction	and epidemiological welfare of the population, the main
	regulatory documents on the prevention of hospital
	infections, the organization of the work of junior and
	middle medical personnel in medical organizations; the
	basics of preventive medicine, the organization of
	preventive measures aimed at strengthening the health of
	the population; methods of sanitary and educational work;
	organization of medical control over the state of health of
	the population, maintenance of standard accounting and
	reporting medical documentation in medical organizations;
	organization of work of junior and middle medical
	-
	personnel in medical organizations; - the basics of
	organizing medical (outpatient and inpatient) care for
	various groups of the population, criteria for diagnosing
	various diseases; features of first aid and resuscitation for
	victims of road traffic injuries, drowning, electrical trauma,
	strangulation asphyxia, ways to restore the patency of the
	upper respiratory tract
	Be able to: organize patient care; plan, analyze and
	evaluate the quality of medical care, the state of health of
	the population and the influence of environmental and
	industrial factors on it; participate in the organization and
	provision of medical and preventive and sanitary and anti-
	epidemic assistance to the population, taking into account
	its socio-professional
	(including professional sports) and age and sex
	structures; carry out preventive, hygienic and anti-epidemic
	measures; determine the status of the patient: collect an

OPC-7. Able to prescribe treatment and monitor its effectiveness and safety.	anamnesis, conduct a survey of the patient and / or his relatives, conduct a physical examination of the patient (examination, palpation, auscultation, measurement of blood pressure, determination of the properties of the arterial pulse, etc.); use different methods of administering drugs; make a preliminary diagnosis - synthesize information about the patient in order to determine the pathology and the causes that cause it; examine patients with various traumatic injuries, with purulent-septic conditions, identify life-threatening bleeding disorders, apply transport tires, bandages and scarves, administer medications through drains and microirrigators, evaluate the suitability of blood and its preparations for transfusion, monitor hemodynamic and respiratory parameters; carry out resuscitation measures in the event of clinical death; carry out activities with the population of the attached area for primary and secondary prevention of the most common diseases that require therapeutic or surgical treatment, carry out preventive measures to increase the body's resistance to adverse environmental factors using various methods of physical culture and sports , hardening, promote a healthy lifestyle; fill out a medical history, write a prescription. Own: methods of organizing patient care, the quality of medical care; own methods for providing primary pre- medical health care; methodology for conducting medical examinations and prescribing therapeutic measures Know: classification and main characteristics of medicines, pharmacodynamics and pharmacokinetics of indications and contraindications for the use of medicines, side effects; general principles for preparing prescriptions
	and compiling prescriptions for medicines; methods of treatment and indications for their use; the mechanism of the therapeutic effect of physiotherapy and physiotherapy, indications and contraindications for their use, their features holding; types and methods of modern general anesthesia (mask, endotracheal, intravenous), prevention of postoperative pulmonary complications, - clinical and pharmacological characteristics of the main groups of drugs and the rational choice of specific drugs in the treatment of major pathological syndromes of diseases and emergency conditions in patients, including the basics of anti-doping legislation. Be able to: use physical, chemical and biological equipment; classify chemical compounds based on their

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	structural formulas; predict the direction and result of physical and chemical processes and chemical transformations of biologically important substances; use the IUPAC nomenclature for naming according to the formulas of typical representatives of biologically important substances and medicinal preparations; analyze the effect of medicines in terms of the totality of their pharmacological properties and the possibility of their use for therapeutic treatment; write prescriptions for drugs, use various dosage forms in the treatment of certain pathological conditions, based on the characteristics of their pharmacodynamics and pharmacokinetics; apply the main antibacterial antiviral and biologicaldrugs; evaluate possible manifestations in case of drug overdose and ways to eliminate them; formulate indications for the chosen method of treatment, taking into account etiotropic and pathogenetic agents, substantiate pharmacotherapy in a particular patient with major pathological syndromes and emergency conditions, determine the route of administration, regimen and dose of drugs, evaluate the effectiveness and safety of the treatment; apply various methods of drug administration. Own: methods of analyzing clinical, laboratory and instrumental data to determine the algorithm for managing a patient, drawing up schemes for drug and non-drug treatment.
PC-2 Willingness to collect and analyze the patient's complaints, his medical history, examination results, laboratory, instrumental, patho- anatomical and other studies in order to recognize the condition or establish the fact of the presence or	Know: diagnostic methods, diagnostic capabilities of methods for direct examination of a patient of a therapeutic, surgical and obstetric-gynecological profile; modern methods of clinical, laboratory, instrumental examination of patients (including endoscopic, radiological methods, ultrasound diagnostics). Be able to: determine the patient's status: collect anamnesis, conduct a survey of the patient and / or his
absence of the disease	relatives, conduct a physical examination of the patient (examination, palpation, auscultation); conduct an initial examination of systems and organs: respiratory, cardiovascular, blood and hematopoietic organs, digestive, endocrine and urinary; outline the scope of additional studies in accordance with the prognosis of the disease, to clarify the diagnosis and obtain a reliable result. Own: methods of general clinical objective examination (questioning, examination, palpation, percussion, auscultation) for diseases of internal organs; interpretation of the results of laboratory, instrumental
4. Volume of the subject	diagnostic methods in the pathology of internal organs.

4. Volume of the subject

### **4.1.** Volume of the subject in credit points (total): 9 credit points

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#### 4.2. On types of academic workload (in hours): - 324 hours

	Number of hours (form of education		
Type of academic work	Total according	Including	on semesters
	to the plan	№ semester 9	№ semester 10
1	2	3	4
Work of students with a teacher	192	102	90
Classes:			
lectures	54	18	36
practical classes and seminars	138	84	54
lab classes (practical lessons)	-	-	-
Self-study work	96	78	18
Concurrent control (number and type: a test, a colloquium, a report)		tests	essay
Course paper		-	Academic medical history
Types of intermediate attestation (examination, test)	36	-	exam
Total number of hours on the subject	324	180	108

# **4.3. Contents of the discipline (module). Distribution of hours on themes and kinds of study:** Number of hours –h

The form of training: full time

Name of sections		Activity format					
and themes		Clas	sroom stu	ıdies			Form
	Total	lect.	pract.c l.	Laborato ry work	Interac tive classes	Sel f- stu dy wo rk	of current control
	2	3	4	5	6	7	8
Section 1. A common	- <b>*</b>	duction to th	· · ·		r	n	
1. Teaching about the	5	2	3				testing,
general pathology of							abstract
infectious diseases.							
Diagnostic principles							
infectious diseases.							
Principles and							
methods of treating							
infectious patients.							
Organization of							
infectious							
service in the Russian							
Federation.							

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Prevention of						
infectious						
diseases. Biological						
safety.						
2. Rules for	3		3			testing
hospitalization of	5		5			testing
infectious patients.						
The structure and						
mode of operation of						
infectious diseases						
hospitals.						
Section 2. Special part	0		-	1		
3. Intestinal infections	8	2	6	1		testing
and invasions:						
typhoid fever,						
paratyphoid fever A,						
В						
4. Dysentery	4		4	1		testing
5. Escherichiosis	6			1	6	testing
6. Campylobacteriosis	6			1	6	testing
7. Cholera	2		2			testing
8. Viral gastroenteritis	2		2			testing
9. Giardiasis	8	2			6	testing
10. Foodborne	2		2			testing
toxicoinfections	-		-			
11. Salmonellosis	2		2			testing
12. Botulism	2		2	1		testing
13. Yersineosis:	2		2	1		testing
pseudotuberculosis,	2		2			testing
yersineosis						
	4		4	1		tacting
14. Enterovirus	4		4	1		testing
infections	4	1	2	1		
15. Viral hepatitis A	4	1	3	1		testing
16. Viral hepatitis E	4	1	3	1		testing,
						abstract
17. Helminthiasis	3		3			testing
(enterobiasis,						
opisthorchiasis,						
diphyllobothriasis)						
18. Brucellosis	1,5		1,5	1		testing
19. Leptospirosis	2		2			testing
20. Toxoplasmosis	4				4	testing,
						abstract
21. Influenza and	6	2	4			testing
other acute respiratory						
infections.						
22.COVID-19	12	4	2		6	testing,
			_		-	-
						abstract

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23. Meningococcal	6	2	4		1		testing
infection	2		2				4 4
24. Diphtheria	2		2		1		testing
25. Infectious	2		2		1		testing
mononucleosis	2				1		
26. Angina,	2		2		1		testing
differential diagnosis							
with diphtheria							
27. Mycoplasma infection	4					4	testing
28. Herpetic infection	6.5	2	4,5				testing,
							abstract
29. Blood infections.	10	4	6				testing,
Viral hepatitis B.							abstract
Viral hepatitis D.							
Viral hepatitis C							
30. Rickettsioses.	4				1	4	testing
Typhus fever:							Ū
epidemic and disease							
Brill-Zinsser							
31. Tick-borne	6					6	testing,
borreliosis. Systemic							abstract
tick-borne borreliosis							
(Lyme disease)							
32. Malaria	5	2	3		1		testing
33. Plague	2,5	1	1,5		1		testing
34. Tularemia	2,5	1	1,5				testing
35. Hemorrhagic	8	4	4				testing
fevers							Ũ
36. Seasonal	6					6	testing
encephalitis.							Ũ
California							
encephalitis. Tick-							
borne encephalitis.							
Prevention of tick-							
borne infections.							
Arbovirus infections							
37 HIV infection	12	6	6			1	
38. Sepsis	5	2	3			1	
39. Erysipelas	1,5		1,5				testing
40 anthrax	1,5		1,5			1	testing
41. Tetanus	2		2				testing
42. Rabies	6					6	testing
43. Measles	3 7	1				6	testing
44. Echinococcosis	2	1	1			-	testing
Section III. Early and o		l diagnosis of	f infectious dis	eases	1	<u> </u>	
Emergencies and emerg		U					
45. Early and	8		6				testing
Lot Durig und	, v	-				1	

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differential diagnosis of acute febrile diseases (typhoid fever, typhus, HFRS, brucellosis, malaria, sepsis, candidiasis). Diagnostic search for fever of unknown						
origin46.Early anddifferential diagnosisof diseases occurringwith exanthemasyndrome (measles,rubella, scarlet fever,herpes infection,hemorrhagic fevers,pseudotuberculosis,Lyme disease, drugdisease, typhoid-paratyphoid diseases).Management ofpatients at theprehospital stage	8	2	6		1	testing
47. Early and differential diagnosis of diseases involving the pharynx (tonsillitis, diphtheria, scarlet fever, tularemia, candidiasis) and lymphadenopathies (infectious mononucleosis, tularemia, plague, HIV infection, lymphogranulomatosi s, toxoplasmosis). Management of patients at the prehospital stage	8	2	6		1	testing
48. Early and differential diagnosis of diseases with jaundice syndrome. Doctor's tactics at the prehospital stage	8	2	6		1	testing abstra
49. Early and	6		6			testing

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differential diagnosis							abstract
of diseases occurring							
with diarrheal							
syndrome. Doctor's							
tactics at the							
prehospital stage							
50. Tactics of a doctor	8	2	6				testing,
for influenza and	0	_	0				abstract
other acute respiratory							ubbliuot
viral infections.							
Emergency conditions							
and emergency care							
for infectious patients							
at the prehospital							
stage (ITSh,							
hypovolemic shock,							
acute respiratory							
failure, acute renal							
and hepatic failure,							
edema and swelling							
of the brain)							
51. Differential	8	2	6				testing,
diagnosis of							abstract
neuroinfections							
(meningococcal							
meningitis, viral							
serous meningitis,							
secondary serous							
meningitis in							
leptospirosis,							
yersineosis, typhoid							
fever, and tuberculous							
meningitis). Slow							
viral infections.							
52. Early and	6					6	testing,
differential diagnosis							abstract
of infectious diseases							abbilaot
occurring with							
hemorrhagic							
syndrome							
	30					30	
	50					50	
abstract	26						
Exam	36	54	120		10	06	
Total	324	54	138	-	18	96	

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#### **5. COURSE CONTENT**

Section 1. A common part. Introduction to the specialty

Topic 1. Teaching about the general pathology of infectious diseases. Diagnostic principles infectious diseases. Principles and methods of treating infectious patients.

Organization of the infectious disease service in the Russian Federation. Prevention of infectious diseases.

Brief historical information about the spread of infectious diseases. The main stages of knowledge of infectious diseases. Infectious diseases as an independent scientific and clinical discipline. The participation of domestic scientists in the development of pathogenetic, clinical and preventive directions in the study of infectious pathology. Definition of the concepts of "infection", "infectious process", "infectious disease". The place of infectious diseases in human pathology. Patterns of development of the infectious process. The course of an infectious disease. Its cycles. Acute and chronic forms of infectious diseases. Slow infections. New and recurring infections. Non-specific mechanisms of protection of macroorganisms. Immunity and allergy, their role in the development of variants in the development of variants of an infectious disease. Age features of the course of infectious diseases and changes in the structure of infectious diseases at present. The principle of constructing clinical classifications of infectious diseases. Classification of infectious diseases according to L.V. Gromashevsky. WHO classification of diseases).

*Diagnosis of infectious diseases.* Principles of early diagnosis of an infectious disease. The value of anamnesis in diagnosis. Features of the anamnesis of an infectious patient. Epidemiological history. Data obtained during an objective examination. Isolation of individual symptom complexes during the course of the disease. Assessment of clinical symptoms. Laboratory research methods: virological, bacteriological, serological, parasitological. Significance in the diagnosis of determining classes of immunoglobulins. The diagnostic value of the determination of microbial antigens in the biological media of the body. Methods of express diagnostics using coaglutination reactions, latexagglutination, hemagglutination aggregate (RAGA), methods of immunofluorescence and RNGA with immunoglobulin diagnostics. Immunoassay and radioimmunoassay. New methods of immunological diagnostics: immunoblotting, polymerase chain reaction (PCR). Clinical and mmunological evaluation of laboratory data. Instrumental methods.

*Principles and methods of treating infectious patients.* Principles of complex etiotropic and pathogenetically justified therapy of patients. Antibiotic therapy. Chemotherapy. Antibiotics, their selective action. Principles of rational antibiotic therapy. Methods for selecting adequate drugs and therapeutic doses. Chemotherapy. Methods of their application. Microbial resistance to antibacterial drugs. Complications of etiotropic and pathogenetic treatment of infectious patients. Anaphylactic shock, drug disease. Serotherapy. Antitoxic and antimicrobial sera, methods of their administration. Pre-desensitization methods. Use of immunoglobulins. Complications of serotherapy. Antiviral agents. Synthetic antiviral drugs. The mechanism of their action. Biological antiviral agents - interferons. Interferon preparations of different generations. Mechanisms of their action, indications for the use of antiviral agents. Methods of their application. Side effects. Principles of immunomodulatory therapy. Immunomodulators of microbial origin. Thymus preparations. Interferons. Gamma globulin preparations. Synthetic immunomodulators. Indications for the use of immuno-modulating drugs. Application methods. Side effect. Immunity stimulants. Vaccine therapy. Pathogenetic therapy. Correction of violations of the internal environment of the body. Methods and means

of detoxification therapy. Rehydration therapy. Polionic saline solutions for oral and infusion rehydration. Glucocorticoid therapy, indications (contraindications, complications). Emergency therapy for infectious diseases. Features of the treatment of patients at the prehospital stage.

The structure of the infectious disease service. The concept of the general structure of the infectious disease service. The role of infectious disease rooms in polyclinics, infectious diseases hospitals, institutes of chief specialists, territorial centers of infectious pathology, centers for the fight and prevention of AIDS and infectious diseases. Principles and possibilities of early detection of infectious patients. Registration of an infectious patient. Transportation of the patient to the hospital. The concept of the rules of isolation and hospitalization of patients. Hospitalization is mandatory for clinical and epidemiological indications. The principles of organizing outpatient services for infectious patients. Indications for leaving infectious patients for treatment at home.

The most important sanitary and hygienic and clinical requirements for the design of infectious diseases hospitals and departments. Typical projects of infectious diseases hospitals and departments. Arrangement and organization of the admission department. Boxes and observation rooms. Initial examination of the patient, the rules for admission to the hospital, the distribution of patients by departments. Clarification of the epidemiological history, identification of mixed infections. Sanitary examination upon admission. Transportation of the patient to the department. Diagnostic and specialized departments, their mode of operation. Box offices. Organization and regime of the infectious diseases department.

Features of the organization and operation of hospitals for patients with quarantine infections: collecting material from patients for laboratory research, precautions, special clothing. Centralized laboratory. Features of the organization of work with patients with HIV infection and virus carriers. Terms of isolation of infectious patients. Conditions of discharge. Clinical examination. Rehabilitation of convalescents. Spa treatment.

*Prevention of infectious diseases.* General principles for the prevention of infectious diseases. Measures regarding the source of infection, routes of transmission, susceptibility of the organism. Active identification and sanitation of bacteria-releasing bacteria. Vaccination and seroprophylaxis. Types of vaccines. Toxoids. Serums. Immunoglobulins. Organization of the vaccination business. Routine vaccinations and vaccinations for epidemic indications. Contraindications to vaccinations. Complications of vaccination. Modern WHO information on detection of a conventional quarantine disease. Measures to localize and eliminate the focus of the disease. Achievements of domestic health care in the prevention of infectious diseases.

## Topic 2. Rules for hospitalization of infectious patients. The structure and mode of operation of infectious diseases hospitals

Determination of indications for hospitalization of an infectious patient, taking into account the diagnosis of the disease, the severity of the patient's condition, his age, the degree of epidemic danger to others, the presence of concomitant diseases and complications, syndromes of critical and urgent conditions. Home conditions (the opportunity for care, compliance with the epidemiological regimen). Regulatory and guiding documents of the Ministry of Health of the Russian Federation, defining the provisions according to which certain categories of infectious patients can be treated on an outpatient basis. List of infectious diseases for which hospitalization is required. Individual indications for hospitalization in a hospital, determined by the doctor personally for each patient. Hospitalization rules and doctor's tactics for quarantine and especially dangerous infections.

The device and mode of operation of the infectious hospital. Reception of infectious patients. Boxed infectious diseases department. Indications for hospitalization of the patient in

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the box. Rules for discharging a patient from an infectious diseases hospital. Organization of a cholera hospital on the basis of a boxed infectious diseases department.

#### SECTION II. SPECIAL PART

#### Topic 3. Intestinal infections and invasions: typhoid fever, paratyphoid fever A, B

Definition of typhoid fever. Etiology. The causative agent, its main properties, antigenic structure. L-form of the pathogen. Factors contributing to the L-transformation of the pathogen. The stability of the pathogen in the external environment. Epidemiology. Sources of infection. The value of chronic bacteria carriers in the spread of typhoid fever. Infection mechanism. Ways and factors of transmission of infection. Sporadic cases of the disease. Food and water outbreaks. Seasonality. The susceptibility of the population. Immunity. Pathogenesis, pathological anatomy. The introduction of the pathogen, reproduction in the lymphatic formations of the intestine, lymph nodes, intracellular parasitism in the MFS with its generalized lesion, bacteremia, toxinemia. Focal lesions. Allergic reactions. The pathogenesis of relapses. Formation of chronic carriers of bacteria (A.F. Bilibin). The role of the L-forms of the pathogen in the pathogenesis of relapses and chronic carriers of bacteria. Cyclicity of pathological changes in the lymphoid apparatus of the small intestine. Changes from other organs and systems. Clinic. Clinical classification. Incubation period. The cyclical course of typhoid fever. Variants of the initial period of the disease in modern and classic typhoid fever. Features of the modern clinical course of typhoid fever. Clinical characteristics of the height of the disease. Types of temperature curves. The timing of the appearance of a characteristic rash. Disorders of the central nervous and cardiovascular systems. Signs of damage to the gastrointestinal tract. Criteria for the severity of typhoid fever. "Status ty-fosus" as a manifestation of the severe course of the disease. Dynamics of hematological changes. Exacerbations and relapses of typhoid fever. The course of typhoid fever in vaccinated. Complications. Forecast. Diagnostics. The role of epidemiological and clinical data. Hemogram. Laboratory diagnostics: bacteriological (obtaining and studying hemo-, copro-, urino-, bili-, roseolo-, myelocultures) and serological (Vidal agglutination reaction, RNGA with erythrocyte diagnostics OH and Vi). Immunofluorescence method in express diagnostics of infection. Determination of pathogen antigens in the blood by enzyme immunoassay methods, in the aggregate hemagglutination reaction, in feces and blood - in the coagglutination reaction. The choice of optimal methods of laboratory diagnostics at different periods of the disease. Differential diagnosis. Treatment. The importance of regimen, nursing and diet therapy, including the prehospital phase. Compulsory hospitalization. Principles and means of antibiotic therapy. Means of pathogenetic therapy and indications for their use, Emergency therapy for complications of typhoid fever. Immunomodulatory therapy to prevent relapse. Prevention. Early identification and sanitation of sources of infection, suppression of transmission routes and increased body immunity. Specific prevention. Principles of medical examination of convalescents.

Paratyphoid fever A and B. Etiology, epidemiology, pathogenesis: similarities and differences with typhoid fever. Clinic. The main clinical symptoms of paratyphoid fever A and B. Features of the course of paratyphoid fever in comparison with typhoid fever. Complications. Forecast. Diagnostics. The decisive importance of laboratory (bacteriological and serological) diagnostics. Clinical and epidemiological diagnostics. Treatment. The value of the regimen, patient care. Diet therapy. Principles and means of antibiotic therapy.

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#### **Topic 4. Dysentery**

Definition Etiology The causative agent, its main properties. Modern classification of Shigella. The stability of the pathogen in the external environment. Epidemiology. Sources of infection. The importance of patients with subclinical, erased and mild forms in the spread of dysentery. Infection mechanism. Ways and factors of transmission of infection. Optimal transmission routes for different types of shigella. Susceptibility of different age groups. Immunity. Seasonality. Pathogenesis, pathological anatomy. Entrance gate of infection. The role of the adhesive, invasive and toxigenic properties of the pathogen. The role of dysbiosis in the pathogenesis of the disease. The value of the premorbid background and the state of the macroorganism for the course of the disease. The mechanism of development of colitis syndrome, the nature of the lesions of the mucous membrane of the colon. Pathological changes in the internal organs.

Clinic. Clinical classification of dysentery. Incubation periods for different clinical variants of the disease. Characteristics of colitis, gastroenterocolitic and gastroenteric variants of acute dysentery. Subclinical course of dysentery (bacterial carriage). Prolonged flow. Criteria for the severity of the course. Severe course of the disease with severe damage to the intestinal mucosa. Complications of dysentery, post-dysentery conditions. Chronic dysentery and its variants. Conditions conducive to the development of chronic dysentery. Forecast Diagnostics. The value of the epidemiological history and clinical examination of the patient. Bacteriological and serological (RNGA with erythrocytic dysentery diagnosticum, coagglutination reaction, latex agglutination, ELISA, RNIF methods). Coprology and sigmoidoscopic method. Indications for sigmoidoscopy. Express diagnostics using a coagglutination reaction, immunofluorescence method and RNGA with immunoglobulin (antibody) diagnosticums. Differential diagnosis. Treatment. Indications for compulsory hospitalization. Indications, organization and program of home treatment. Mode. Diet therapy. Tactics of etiotropic treatment of patients with colitis variant of acute dysentery. Antibacterial therapy (antibiotics, derivatives of nitrofuran, hydroxyquinolines, nalidixic acid and drew) Sulfonamides and their combinations with other drugs. The use of bacterial biological preparations. Enterosorption and enterosorbent preparations. Pathogenetic and symptomatic therapy. Features of the treatment of severe forms. Tactics of treatment of patients with gastroenterocolitic and gastroenteric variants. Rehydration therapy and its stages. Oral and infusion rehydration. Chronic dysentery therapy. The value of immunocorrective and restorative therapy. The value of dysbiosis treatment. Hospital discharge rules. Rehabilitation of convalescents. Prevention. The role of early detection of patients and their rational treatment in hospital and at home. Current and final disinfection. Sanitary and hygienic measures. Increase in nonspecific resistance of the organism. Dispensary observation of convalescents in infectious disease rooms of polyclinics. The role of early detection of patients and their rational treatment in hospital and at home. Current and final disinfection. Sanitary and hygienic measures. Increase in nonspecific resistance of the organism. Dispensary observation of convalescents in infectious disease rooms of polyclinics. The role of early detection of patients and their rational treatment in hospital and at home. Current and final disinfection. Sanitary and hygienic measures. Increase in nonspecific resistance of the organism. Dispensary observation of convalescents in infectious disease rooms of polyclinics.

#### **Topic 5. Escherichiosis**

Definition. Etiology. Characteristics of Escherichia, their antigenic structure, classification of Escherichia. Enteropathogenic Escherichia coli (EPCP) are causative agents of colienteritis in children of early (up to 1 year of age) age. Enterotoxigenic (ETKP) and enteroinvasive (EIKP) Escherichia coli-causative agents of Escherichiosis in adults and children

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over a year. Epidemiology. Sources of Escherichiosis. The mechanism of infection, routes of spread, factors of transmission of infection. Contagiousness of patients with escherichiosis. Pathogenesis, pathological anatomy. The role of invasive and toxigenic properties of Escherichia. The importance of the state of the macroorganism in the development of the disease. Pathological changes in the internal organs. Clinic. Symptoms and course of dysenterylike (caused by EIKP 0124, 0151, "Crimea", etc.) and cholera-like (caused by ETCP 01, 06, 08, etc.) Escherichiosis. Forecast. Diagnostics. The importance of epidemiological and clinical data in the diagnosis of Escherichiosis. The decisive importance of laboratory diagnostics: bacteriological (inoculation of feces and vomit) and serological (RNGA, accelerated diagnosis of Escherichiosis using the immunofluorescence method and RNGA with immunoglobulin diagnostics). Differential diagnosis. Treatment. Principles of therapy for dysentery-like and cholnor-like Escherichiosis. Treatment of patients at the prehospital stage. The role of antibacterial therapy. Pathogenetic therapy. Home care program. Prevention. Activities aimed at sources of infection, ways of spreading the disease. Measures to increase the body's nonspecific resistance. bacteriological (sowing of feces and vomit) and serological (RNGA, accelerated diagnosis of Escherichiosis using the immunofluorescent method and RNGA with immunoglobulin diagnostics). Differential diagnosis. Treatment. Principles of therapy for dysentery-like and cholnor-like Escherichiosis. Treatment of patients at the prehospital stage. The role of antibacterial therapy. Pathogenetic therapy. Home care program. Prevention. Activities aimed at sources of infection, ways of spreading the disease. Measures to increase the body's nonspecific resistance. bacteriological (inoculation of feces and vomit) and serological (RNGA, accelerated diagnosis of Escherichiosis using the immunofluorescent method and RNGA with immunoglobulin diagnostics). Differential diagnosis. Treatment. Principles of therapy for dysentery-like and cholnor-like Escherichiosis. Treatment of patients at the prehospital stage. The role of antibacterial therapy. Pathogenetic therapy. Home care program. Prevention. Activities aimed at sources of infection, ways of spreading the disease. Measures to increase the body's nonspecific resistance. Principles of therapy for dysentery-like and cholnorlike Escherichiosis. Treatment of patients at the prehospital stage. The role of antibacterial therapy. Pathogenetic therapy. Home care program. Prevention. Activities aimed at sources of infection, ways of spreading the disease. Measures to increase the body's nonspecific resistance. Principles of therapy for dysentery-like and cholnor-like Escherichiosis. Treatment of patients at the prehospital stage. The role of antibacterial therapy. Pathogenetic therapy. Home care program. Prevention. Activities aimed at sources of infection, ways of spreading the disease. Measures to increase the body's nonspecific resistance.

#### **Topic 6. Campylobacteriosis**

Definition Etiology Basic information about the pathogen. Epidemiology. Sources of infection. The meaning of animals. Man as a source of infection. The role of healthy bacteria carriers. The mechanism of transmission and ways of spreading the infection. Outbreaks of infection and sporadic morbidity. Seasonality. Hospital-acquired outbreaks. Immunity. Pathogenesis, pathological anatomy. Entrance gate of infection. Features of the action of bacterial toxins on the mucous membrane of the small and large intestine. Development of secretory diarrhea. The onset of colitis. The nature of changes in the mucous membrane of the large intestine. Clinic. Incubation period. Prodormal period. The height of the disease. Gastroenteric and colitis variants of the course. General toxic manifestations. Extraintestinal (generalized) form of the disease. Diagnostics. The importance of clinical and epidemiological diagnostics: RA, RNGA, RIF, RSK, express diagnostics - coagglutination reaction). Differential diagnosis. Treatment. Oral and infusion rehydration therapy. Indications for antibiotic therapy. Symptomatic remedies. Indications for hospitalization.

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of severe and extraintestinal forms. Treatment at the prehospital stage. Home treatment program for patients. Prevention. Sanitary inspection. Recreational activities in the focus of infection. Features of treatment of severe and extraintestinal forms. Treatment at the prehospital stage. Home treatment program for patients. Prevention. Sanitary inspection. Recreational activities in the focus of infection. Features of treatment of severe and extraintestinal forms. Treatment at the prehospital stage. Home treatment program for patients. Prevention. Sanitary inspection. Recreational activities in the focus of infection.

#### **Topic 7. Cholera**

Definition. Etiology. Classic cholera vibrio and vibrio El-Tor. Their most important properties, characteristics of toxins. Vibrio serotypes. Serovariant 0139 Vibrio cholerae. Stability of Vibrio cholerae in the environment. Information about halophilic pathogenic vibrios. Epidemiology. Sources of infection. The mechanism of infection, routes of spread and factors of transmission. The predominant value of the waterway. Factors contributing to the spread of cholera. The susceptibility of the population. Immunity. Seasonality. Cholera epidemics and pandemics. New data on the possibility of the importation and spread of cholera from neighboring countries, with which trade and economic ties have significantly expanded. Features of the epidemiology of El-Tor cholera. Features of the development of epidemics caused by 0139 serovar of cholera vibrio. Pathogenesis, pathological anatomy. The introduction of the pathogen and its reproduction. The effect of choleragen toxin on the enzyme systems of the cells of the small intestine. Pathogenesis of diarrhea, water-electrolyte disorders, metabolic acidosis, cardiovascular disorders, renal dysfunctions. Pathogenesis of hypovolemic shock. Pathological changes in the internal organs. Clinic. Cholera classification (according to the degree of dehydration). Incubation period. Early symptoms of cholera. Characteristics of the individual phases of the disease. Clinical and pathogenetic characteristics of four degrees of dehydration. Cholera course options. Clinical features of El Tor cholera. Clinical features of cholera caused by serovar 0139. Clinical presentation of gpovolemic shock. Complications. Forecast. Diagnostics. The exceptional value of the epidemiological history and clinical examination of the patient. Bacteriological diagnostics (cultures of feces, vomit, bile, autopsy material). Express diagnostic methods. Modern methods for the detection of the pathogen based on the use of polymerase chain reaction (PCR) and the detection of ... -gene in the isolated cultures using DNA probing. Information on the variability of the main properties of Vibrio cholerae isolated in recent years (resistance to diagnostic phages, antibiotics, etc.). Rules for taking, sending and researching material. Differential diagnosis. Treatment. Pathogenetic therapy, taking into account the degree of dehydration of the patient. Stages of oral and infusion rehydration. Solutions for oral and infusion rehydration. Means of pathogenetic therapy. Methods for monitoring the effectiveness of the therapy. Complications of fluid therapy. Antibiotic therapy for patients with cholera and vibrio carriers. Hospital discharge rules. Forecast. Prevention. Localization of an epidemic outbreak, elimination of the focus. Prevention of cholera import. The effectiveness of early detection and hospitalization of patients, bacteriological examination of contact persons. Current and final disinfection. Clinical and bacteriological control of vibrio carriers. Emergency antibiotic prophylaxis. Immunization of the population. New vaccine preparations (tableted, live and synthetic). International regulations and quarantine measures for cholera control. Safety rules when working in the outbreak of cholera and in the laboratory. The effectiveness of early detection and hospitalization of patients, bacteriological examination of contact persons. Current and final disinfection. Clinical and bacteriological control of vibrio carriers. Emergency antibiotic prophylaxis. Immunization of the population. New vaccine preparations (tableted, live and synthetic). International regulations and quarantine measures for cholera control. Safety rules

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when working in the outbreak of cholera and in the laboratory. The effectiveness of early detection and hospitalization of patients, bacteriological examination of contact persons. Current and final disinfection. Clinical and bacteriological control of vibrio carriers. Emergency antibiotic prophylaxis. Immunization of the population. New vaccine preparations (tableted, live and synthetic). International regulations and quarantine measures for cholera control. Safety rules when working in the outbreak of cholera and in the laboratory.

#### **Topic 8. Viral gastroenteritis**

Definition. Etiology. Rotaviruses as the cause of most viral gastroenteritis. The importance of other viruses in the development of gastroenteritis. Epidemiology. Sources. The mechanism of infection and transmission routes. Susceptibility. Immunity. Seasonality. Sporadic. Pathogenesis, pathological anatomy. The introduction of the virus into enterocytes (enterotropy). Reproduction of the virus. Epithelial damage. Membrane and cavity digestion disorders. Features of the pathogenesis of diarrhea. Forecast. Diagnostics. The importance of clinical and epidemiological data in the diagnosis of viral gastroenteritis. Virological and serological diagnostics. Differential diagnosis. Treatment. The critical importance of pathogenetic rehydration and detoxification therapy. Indications for hospitalization. Treatment of patients at the prehospital stage. A program for treating patients at home without the need for hospitalization. Correction of enzymatic insufficiency of the gastrointestinal tract. Organization of treatment of patients at home. Forecast. Prevention. The predominant importance of sanitary and hygienic measures.

#### Topic 9. Giardiasis.

Definition. Etiology. Pathogen, its life cycle. Epidemiology. Sources of invasion. The mechanism of infection and ways of spreading giardiasis ... Susceptibility and immunity. The introduction of the pathogen and its reproduction in the intestine. Pathomorphological changes in the colon with giardiasis. Characteristics of the defeat of various organs and systems in various forms of giardiasis. Clinic. Clinical classification of giardiasis. Complications and outcomes. Forecast. Diagnostics. The value of the epidemiological history and clinical examination of patients. Specific (parasitological and serological) and auxiliary methods for the recognition of giardiasis. Additional detection methods. Differential diagnosis. Treatment. The use of drugs with a specific action. Basic chemotherapy drugs. The choice of drugs and medicinal doses. Pathogenetic and symptomatic therapy. Prevention. Identification and rehabilitation of sources of invasion. Impact on the transmission path. Sanitary and hygienic measures. Clinical examination of convalescents.

#### **Topic 10. Foodborne toxicoinfections**

Definition. Etiology. The importance of pathogenic microbes (salmonella) and opportunistic: staphylococci, proteus, enterococci, klebsiella, citrobacter, spore microbes and anaerobes, halophilic vibrios, associations of opportunistic bacteria in the occurrence of toxicoinfections. Epidemiology. Sources of foodborne diseases, transmission mechanism. Infected food as an essential transmission factor. The role of various foods in the transmission of toxicoinfections. Sporadic morbidity and group outbreaks. Seasonality. Peculiarities of the epidemiology of staphylococcal toxicoinfections. Pathogenesis, pathological anatomy. The role of the toxigenic properties of pathogens during their accumulation in food. Pathogenetic mechanism of secretory diarrhea, general toxic syndrome, cardiovascular disorders in food toxicoinfections. Clinic. Incubation period. Clinical classification and clinical variants of the course of the disease with a predominant lesion of various parts of the gastrointestinal tract. The leading value of the gastroenteric variant. Severity criteria, taking into account the severity of

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toxicosis and the degree of dehydration. Features of the symptoms of foodborne diseases caused by various pathogens. Complications. Forecast. Diagnostics. The role of the epidemiological history and clinical examination of patients. Syndromic diagnosis. The value of the bacteriological diagnostic method, RNGA, coagglutination reaction. Serological reactions with autostrains of pathogens. Differential diagnosis. Treatment. Indications for compulsory hospitalization. Indications, organization and program of home treatment. Mode. Pathogenetic rehydration and detoxification therapy as the main method of treating patients with foodborne toxicoinfections. Oral and infusion rehydration therapy, its stages. Calculation of the volume and rate of introduction of polyionic saline solutions. Gastric lavage tactics. Doctor's tactics regarding antibiotic therapy. Prevention. The predominant importance of sanitary and hygienic measures.

#### **Topic 11. Salmonellosis**

Definition Etiology the causative agents of salmonellosis, their most important properties. Classification principles and nomenclature. Stability in the external environment. Epidemiology. The prevalence of salmonellosis in humans and animals. The significance of the incidence of salmonellosis in cattle, poultry, pigs in the spread of infection. Intravital and posthumous infection of meat products. Man as a source of infection. Ways of spread, factors of transmission of salmonellosis. Susceptibility. Immunity. Sporadic morbidity and group outbreaks. Hospital-acquired outbreaks. Seasonality. Pathogenesis, pathological anatomy. Pathogenesis of localized and generalized forms of salmonellosis. Pathogenetic mechanisms of secretory diarrhea, general toxic syndrome, hypovolemic and infectious toxic shock. Morphological changes in the intestines and other organs in various forms of the disease. Formation of piemic foci in septic form of the disease. Clinic. Salmonellosis classification. Incubation period. Symptoms and course of clinical variants of the gastrointestinal form. The leading value of the gastroenteric variant. Severity criteria, taking into account the severity of toxicosis and the degree of dehydration. Clinic of generalized form (typhoid and septicopyemic variants). Carrier bacteria (acute, chronic, transient). Complications: hypovolemic and infectious toxic shock. Forecast. Diagnostics. The defining value of epidemiological and laboratory data. Laboratory diagnostics: bacteriological (crops of vomit, gastric lavage, feces, urine, bile, blood) and serological (RNGA, IFA, RNIF). Differential diagnosis. Treatment. Indications for compulsory hospitalization. Indications, organization and program of treatment of patients at home. Regime, diet. The crucial importance of pathogenetic rehydration therapy of the gastrointestinal form, aimed at normalizing water-salt metabolism, detoxification, combating hypoxia, metabolic acidosis, maintaining cardiovascular activity, and renal function. Oral and infusion rehydration therapy. Stages of infusion therapy. Calculation of the volume and rate of introduction of polyionic saline solutions. Complications of fluid therapy. Tactics of antibiotic therapy in generalized form. General strengthening treatment. Remediation of bacteria-releasing bacteria. Methods of emergency therapy, resuscitation for hypovolemic and infectious toxic shocks. Prevention. Veterinary and sanitary,

#### Topic 12. Botulism

Definition. Etiology. Characteristics of the main properties of the pathogen. Types of pathogen. Resistance of microbes and toxins in the environment. Epidemiology. Sources of infection and factors of transmission of botulism. Increased risk from home-canned foods. Susceptibility. Immunity. Sporadic and group diseases. Pathogenesis, pathological anatomy. The decisive role of botulinum toxin in the development of the disease. Toxinemia. The mechanism of damage to the central and peripheral nervous system. Pathogenesis of acute respiratory failure. Pathological changes in the internal organs. Clinic. Incubation period. Initial

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symptoms. Syndromes: paralytic, dyspeptic, general toxic. Bulbar disorders. Severity criteria. Acute respiratory failure. Complications. Forecast. Diagnostics. The importance of epidemiological, clinical and laboratory data. Laboratory examination of food products, vomit, gastric lavage, feces, blood and urine to detect the pathogen and (or) botulinum toxin. Biological test. Differential diagnosis. Treatment. Specific therapy with anti-botulinum serum, its method. Preliminary desensitization. Administration of toxoid to stimulate immunogenesis. Detoxification therapy, symptomatic treatment. Antibiotic therapy. Intensive therapy for respiratory disorders. Prevention. The role of health supervision and health education. Explaining the rules of home preservation of products to the population. Seroprophylaxis in the botulism focus. Vaccine prophylaxis (polyanatoxin) and indications for it. Laboratory examination of food, vomit, gastric lavage, feces, blood and urine to detect the pathogen and (or) botulinum toxin. Biological test. Differential diagnosis. Treatment. Specific therapy with anti-botulinum serum, its method. Preliminary desensitization. Administration of toxoid to stimulate immunogenesis. Detoxification therapy, symptomatic treatment. Antibiotic therapy. Intensive therapy for respiratory disorders. Prevention. The role of health supervision and health education. Explaining the rules of home preservation of products to the population. Seroprophylaxis in the botulism focus. Vaccine prophylaxis (polyanatoxin) and indications for it. Laboratory examination of food products, vomit, gastric lavage, feces, blood and urine to detect the pathogen and (or) botulinum toxin. Biological test. Differential diagnosis. Treatment. Specific therapy with anti-botulinum serum, its method. Preliminary desensitization. Administration of toxoid to stimulate immunogenesis. Detoxification therapy, symptomatic treatment. Antibiotic therapy. Intensive therapy for respiratory disorders. Prevention. The role of health supervision and health education. Explaining the rules of home preservation of products to the population. Seroprophylaxis in the botulism focus. Vaccine prophylaxis (polyanatoxin) and indications for it. Biological test. Differential diagnosis. Treatment. Specific therapy with anti-botulinum serum, its method. Preliminary desensitization. Administration of toxoid to stimulate immunogenesis. Detoxification therapy, symptomatic treatment. Antibiotic therapy. Intensive therapy for respiratory disorders. Prevention. The role of health supervision and health education. Explaining the rules of home preservation of products to the population. Seroprophylaxis in the botulism focus. Vaccine prophylaxis (polyanatoxin) and indications for it. Biological test. Differential diagnosis. Treatment. Specific therapy with anti-botulinum serum, its method. Preliminary desensitization. Administration of toxoid to stimulate immunogenesis. Detoxification therapy, symptomatic treatment. Antibiotic therapy. Intensive therapy for respiratory disorders. Prevention. The role of health supervision and health education. Explaining the rules of home preservation of products to the population. Seroprophylaxis in the botulism focus. Vaccine prophylaxis (polyanatoxin) and indications for it. Intensive therapy for respiratory disorders. Prevention. The role of health supervision and health education. Explaining the rules of home preservation of products to the population. Seroprophylaxis in the botulism focus. Vaccine prophylaxis (polyanatoxin) and indications for it. Intensive therapy for respiratory disorders. Prevention. The role of health supervision and health education. Explaining the rules of home preservation of products to the population. Seroprophylaxis in the botulism focus. Vaccine prophylaxis (polyanatoxin) and indications for it.

#### Topic 13. Yersineosis: pseudotuberculosis, yersineosis

Definition. Nomenclature. Etiology. Basic information about pathogens. Epidemiology. Sources of infection. Man as a source of infection in intestinal yersiniosis. Ways of human infection and transmission factors. The susceptibility of the population. Seasonality of the disease. Immunity. Pathogenesis, pathological anatomy. Entrance gate of infection. Stages of

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development of the process: enteral, lymphadenitis, bacteremia and toxinemia, organ damage. The value of body sensitization. Pathogenesis of exacerbation and relapse. Pathological changes in the internal organs. Clinic. General clinical classification of pseudotuberculosis and intestinal yersiniosis. Incubation period. Symptoms and course of gastrointestinal and generalized forms. Variants of their course. Secondary focal lesions. Clinical characteristics of exacerbations of the chronic course and relapses. Similarities and differences between pseudotuberculosis and intestinal yersiniosis. Complications. Forecast. Diagnostics. Significance of epidemiological data and clinical findings. Laboratory diagnostics: bacteriological, serological and immunological studies at different periods of the disease (ELISA, RA, RNGA, RSK, coaglutination reaction). Differential diagnosis. Treatment. Etiotropic therapy, choice of drug, dose and duration of treatment. The significance of the timing of the treatment started for the subsequent course of the disease. Pathogenetic therapy. Indications for surgical treatment. Features of therapy for the secondary focal form. Symptomatic remedies. Indications for hospitalization. Home treatment. Rehabilitation. Prevention. Recreational activities in the foci of infection. Deratization. Sanitary supervision of food enterprises,

#### **Topic 14. Enterovirus infections**

Definition. Etiology. Intestinal non-polymyelitis viruses Coxsackie and ECHO. General properties. Epidemiology. Sources of infection. Transmission routes. Susceptibility. Seasonality. Sporadic morbidity, local outbreaks, epidemics. Immunity. Pathogenesis, pathological anatomy. The introduction of the virus into the cells of the mucous membrane of the respiratory and digestive tract. Local changes. Viremia. Lesions of the gastrointestinal tract, nervous system, muscles. Intrauterine fetal injury. Clinic. Incubation period. A variety of clinical manifestations. Clinical characteristics of individual forms: enteroviral diarrhea, herpangina, acute respiratory diseases, myalgia, serous meningitis and other lesions of the clinic for newborns. Outcomes. Forecast. Diagnostics. The importance of clinical and epidemiological data. Virological and serological diagnostics. Differential diagnosis. Treatment. Pathogenetic and symptomatic treatment for various clinical forms. Features of therapy for diarrhea, with lesions of the nervous system. Prevention. The value of sanitary and hygienic measures. Immunoglobulin prophylaxis.

#### Topic 15. Viral hepatitis A

Definition. Etiology. Epidemiology. Source of infection. The timing of infectiousness of patients. Epidemiological significance of patients with anicteric and subclinical forms. Transmission mechanism and factors. Susceptibility of different age groups. Immunity. Seasonality. Pathogenesis, pathological anatomy. Virus injection. Primary regional infection. Primary viremia. Parenchymal dissemination of the virus. Secondary viremia. Pathogenesis of jaundice, cytolysis of hepatocytes, hyperenzymemia and other metabolic disorders. Activation of sanogenesis mechanisms. Morphological changes in the liver. Clinic. Classification of viral hepatitis. The duration of the incubation period. Duration and clinic of the preicteric period. Variants of the preicteric period in viral hepatitis A. Icteric period, its clinical characteristics. Convalescence period. Clinical diagnostic criteria for viral hepatitis A. Course options. Outcomes and prognosis of viral hepatitis A. Prognosis. Diagnostics. The importance of clinical and epidemiological data, the results of biochemical studies: detection of hyperenzymemia, violation of the pigment and protein metabolism. Immunological diagnostics. Instrumental methods (ultrasound of the liver, liver scan, computed tomography). Differential diagnosis. Treatment. The leading importance of the regimen and diet therapy. Pathogenetic therapy. Rehabilitation of those who have been ill. Treatment of patients at the prehospital stage. Home

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treatment program. Forecast, prevention. The importance of early detection and hospitalization of patients. Monitoring contact. Disinfection. Rules for the discharge of patients from the hospital. Immunoglobulin prophylaxis. Vaccine prophylaxis. Clinical examination of the ill.

#### **Topic 16. Viral hepatitis E**

Definition. Etiology. Epidemiology. Sources of infection. The main path of distribution. Susceptibility of different age groups. The main risk group. Immunity. Seasonality. Endemicity. Pathogenesis. Features of the pathogenesis of viral hepatitis E in pregnant women and in severe disease. The influence of severe forms of the disease on the fetus. The mechanism of development of erythrocyte hemolysis, acute hepatic renal failure. Clinic. The incubation period and its duration. Features of the preicteric period. Features of the clinical course of the disease in the icteric period. Clinic for a severe course of the disease in pregnant women. Abortion. Bleeding. Development of disseminated intravascular coagulation syndrome. Hemoglobinuria and renal failure. Diagnostics. The defining value of clinical and epidemiological data. Laboratory immunological diagnostics. Immune electron microscopy. Their importance for detecting sporadic cases of the disease. Differential diagnosis. Treatment. The value of the regimen and diet therapy. Treatment at the prehospital stage. Features of therapy in pregnant women. The need for complex therapy with the participation of an obstetrician, the choice of adequate obstetric tactics. Prevention and treatment of hemorrhagic syndrome and acute renal failure. Forecast. Prevention. The importance of early detection, hospitalization of patients. Monitoring contact. Disinfection. Clinical examination of the ill. Prevention and treatment of hemorrhagic syndrome and acute renal failure. Forecast. Prevention. The importance of early detection, hospitalization of patients. Monitoring contact. Disinfection. Clinical examination of the ill. Prevention and treatment of hemorrhagic syndrome and acute renal failure. Forecast. Prevention. The importance of early detection, hospitalization of patients. Monitoring contact. Disinfection. Clinical examination of the ill.

#### **Topic 17. Helminthiasis**

The main features of the biology of helminths and the epidemiology of helminthiasis, important for the diagnosis of helminthic anthroponosis and helminthic zoonoses. Possibility and epidemiological consequences of the importation of tropical helminthiases in Russia. General patterns of the pathological process in helminthiasis. Factors of influence of parasitic worms on the human body (mechanical, sensitizing, toxic, ways of feeding helminths, etc.). Stages (phases) of helminth development: acute, latent, chronic. Dependence of the clinic of the chronic stage of helminthiasis on the type of pathogen, its localization in the host's body, the intensity of invasion, the reactivity of the macroorganism. Devastation. Deworming. Questions of private helminthology. The clinical picture, diagnostic methods and therapy of the main trematodes, cestodoses, nematodes (the choice of nosological forms is carried out taking into account the local epidemiological situation). Basic information about imported tropical helminthiases (schistosomiasis, etc.). The doctor's tactics in identifying them. Principles of helminthiasis treatment. Features of therapy in the acute and subacute stages of helminthiasis, with helminthiasis with the presence of larval stages of parasites. Anti-nematode anthelmintic drugs of a wide spectrum of action: vermox (mebendazole), thiabendazole, combantrine (pyrantel paomat), naphthamon, medamin, etc. Anti-trematode anthelmintic drugs: chloxil, ambiltar. Protivocestodozny anthelmintic drugs (fensal, prazikvatel and drew). Ways of preventing toxic and allergic reactions in the treatment of helminthiasis. Features of treatment of chronic phases of helminthiasis and complications of their bacterial infection, dysbiosis.

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#### **Topic 18. Brucellosis**

Definition. Etiology. Causative agent. The main species of brucella and their biological properties. L-shaped brucella. Epidemiology. Sources of infection. Epizootics of brucellosis among animals, the duration of their excretion of brucella. Ways, factors of infection spread. Susceptibility. Immunity. Professional and household nature of the incidence. Pathogenesis, pathological anatomy. Phases of brucellosis development. Primary and secondary (metastatic) foci of infection. Infectious and allergic nature of the lesions. Generalized lesion and the formation of specific changes in the SMF. Organ changes. Pathogenesis of focal lesions of the musculoskeletal system, lesions of the cardiovascular system. The significance of L-forms of brucella in the pathogenesis of chronic brucellosis. Clinic. Clinical classification of brucellosis. Incubation period. Acute brucellosis. Initial manifestations. Types of temperature curves. Changes from various systems and organs. Severity criteria. Clinical presentation of subacute (acute recurrent) brucellosis. Chronic brucellosis. Its forms. Lesions of the musculoskeletal system, nervous, cardiovascular and urogenital systems. Assessment of the activity of chronic brucellosis. The consequences of the transferred brucellosis. Forecast. Diagnostics. The value of anamnestic, clinical and epidemiological data. Bacteriological diagnostics, its limited capabilities. Isolation of L-forms of brucella. Serological diagnostics (reaction of Wright, Heddleson, Coombs, RPHA, RSK, immunofluorescence). Allergic tests (intradermal allergic test by Burne, leukocyte lysis reaction). Features of laboratory diagnosis of chronic brucellosis. Differential diagnosis. Treatment. Etiotropic therapy of acute brucellosis. Intermittent course and symptomatic therapy. Features of the treatment of subacute (acute recurrent) brucellosis. Treatment of patients with active and inactive chronic brucellosis. Indications for the use of immunomodulators, biostimulating therapy. Drug therapy for focal lesions. Indications for the appointment of corticosteroids. Physiotherapy methods. Sanatorium-resort treatment of patients with chronic brucellosis and the consequences of brucellosis. Rehabilitation and medical examination of those who have been ill. Clinical examination of professional contingents. Prevention. Veterinary and sanitary, sanitary and hygienic and antiepidemiological measures. Treatment of patients with active and inactive chronic brucellosis. Indications for the use of immunomodulators, biostimulating therapy. Drug therapy for focal lesions. Indications for the appointment of corticosteroids. Physiotherapy methods. Sanatorium-resort treatment of patients with chronic brucellosis and the consequences of brucellosis. Rehabilitation and medical examination of those who have been ill. Clinical examination of professional contingents. Prevention. Veterinary and sanitary, sanitary and hygienic and antiepidemiological measures. Treatment of patients with active and inactive chronic brucellosis. Indications for the use of immunomodulators, biostimulating therapy. Drug therapy for focal lesions. Indications for the appointment of corticosteroids. Physiotherapy methods. Sanatorium treatment of patients with chronic brucellosis and the consequences of brucellosis. Rehabilitation and medical examination of those who have been ill. Clinical examination of professional contingents. Prevention. Veterinary and sanitary, sanitary and hygienic and antiepidemiological measures. Rehabilitation and medical examination of those who have been ill. Clinical examination of professional contingents. Prevention. Veterinary and sanitary, sanitary and hygienic and antiepidemiological measures. Rehabilitation and medical examination of those who have been ill. Clinical examination of professional contingents. Prevention. Veterinary and sanitary, sanitary and hygienic and antiepidemiological measures.

#### **Topic 19. Leptospirosis**

Definition. Etiology. Characteristics of pathogens. The concept of parasitic and freeliving forms. Serological types of leptospira, their significance in human pathology. Epidemiology. Reservoirs and sources of infection in nature. Types of natural foci of

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leptospirosis. Ways of transmission of infection. Susceptibility. Immunity. Epizootological and epidemiological features of certain forms of infection. Seasonality. Types of epidemic outbreaks. Pathogenesis, pathological anatomy. The introduction of leptospira. Parenchymal diffusion. The mechanism of development of intoxication and hemorrhagic syndromes. Damage to the liver, kidneys, cardiovascular and nervous systems and other organs in various forms of leptospirosis. Clinic. Clinical classification of leptospirosis. Incubation period. General patterns of development. Icteric and anicteric variants of the disease. Hemorrhagic syndrome. Symptomatology of renal neurological disorders. Severity criteria. Acute renal failure. Other complications. Forecast. Diagnostics. Importance of epidemiological and clinical data. Methods of bacteriological and serological diagnostics. Differential diagnosis. Treatment. Antibiotic therapy. Specific therapy with antileptospirotic gamma globulin. Preliminary desensitization. Pathogenetic therapy. Emergency therapy for acute renal failure. Symptomatic treatment. Prevention. Improvement of natural foci. Deratization. Veterinary activities. Immunization of the population - planned and according to epidemiological indications. Importance of epidemiological and clinical data. Methods of bacteriological and serological diagnostics. Differential diagnosis. Treatment. Antibiotic therapy. Specific therapy with antileptospirotic gamma globulin. Preliminary desensitization. Pathogenetic therapy. Emergency therapy for acute renal failure. Symptomatic treatment. Prevention. Improvement of natural foci. Deratization. Veterinary activities. Immunization of the population - planned and according to epidemiological indications. Importance of epidemiological and clinical data. Methods of bacteriological and serological diagnostics. Differential diagnosis. Treatment. Antibiotic therapy. Specific therapy with antileptospirotic gamma globulin. Preliminary desensitization. Pathogenetic therapy. Emergency therapy for acute renal failure. Symptomatic treatment. Prevention. Improvement of natural foci. Deratization. Veterinary activities. Immunization of the population - planned and according to epidemiological indications. Prevention. Improvement of natural foci. Deratization. Veterinary activities. Immunization of the population - planned and according to epidemiological indications. Prevention. Improvement of natural foci. Deratization. Veterinary activities. Immunization of the population - planned and according to epidemiological indications.

#### **Topic 20. Toxoplasmosis**

Definition. Etiology. The causative agent, its life cycle, stability in the external environment. Epidemiology. Infection reservoirs. The role of cats in the spread of toxoplasmosis. Epizootics, diseases and infestation of wild and domestic mammals and birds. Infection of people. Ways of transmission of infection (alimentary, contact). Intrauterine infection. Immunity. Pathogenesis, pathological anatomy. The introduction of the pathogen, its reproduction and distribution in the body. Formation of pseudocysts. Congenital toxoplasmosis. Clinic. Classification of forms of infection. Incubation period. Acquired taxoplasmosis. Clinical characteristics of acute and chronic toxoplasmosis (damage to the eyes, myocardium, nervous system). Exacerbations and relapses. Latent forms of toxoplasmosis. Congenital toxoplasmosis. Clinical characteristics of acute, subacute and chronic forms. Diagnostics. The role of obstetric and epidemiological history. Specific diagnostics, parasitological examination of organs, tissues, biological fluids for toxoplasmosis. Immunological reactions (ELISA, Sabin-Feldman reaction, RSK). Indirect immunofluorescence method. Biological test. Toxoplasmin skin test. Diagnosis of latent forms of toxoplasmosis. Treatment. The use of etiotropic therapy agents (sulfonamides, tetracycline, chloridine, aminocholine and others). Cycle treatment. Therapy of chronic toxoplasmosis with toxoplasmin. Methods of pathogenetic therapy. Features of the therapy of toxoplasmosis in pregnant women. Prevention. Methods of sanitary and veterinary

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prophylaxis. Prevention of professional infections. Identification of toxoplasmosis among pregnant women. Prevention of alimentary contamination.

**Topic 21. Respiratory tract infections. Influenza and other acute respiratory diseases.** General clinical, etiological and epidemiological characteristics of acute respiratory diseases of a viral nature. Modern classification of acute respiratory viral diseases. The need for early clinical and epidemiological diagnosis of influenza and the isolation of patients with influenza from the group of patients with other acute respiratory viral infections.

Flu. Definition. Etiology. Modern concepts of the causative agent, its properties, antigenic structure and variability of the influenza virus. Antigenic variants. Pandemic and epidemic strains of the virus. Epidemiology. Sources of infection. The mechanism of infection and ways of spreading influenza. The susceptibility of the organism. Immunity. Morbidity. Seasonality. Influenza epidemics and falls. Possibility of predicting influenza epidemics. Pathogenesis, pathological anatomy. The introduction of the virus, the reproduction of the virus in the cells of the cylindrical epithelium of the respiratory tract. Changes in the mucous membrane of the respiratory tract. The multifactorial nature of toxicosis. The role of viremia and toxemia in the development of generalized microcirculation disorders that underlie damage to the cardiovascular, nervous systems and pre-renchymal organs. Pathogenesis of re-spiratory syndrome. The importance of secondary infection. Clinic. Clinical classification of influenza. Incubation period. Clinic of uncomplicated forms of influenza with mild, moderate and severe course. Influenza severity criteria. Hypertoxic and hemorrhagic syndromes. Acute respiratory failure. Influenza hemodynamic disorders. Acute vascular insufficiency. Features of the course of influenza in children and the elderly. Early viral and bacterial pneumonia, features of their course. Postinfluenza bacterial pneumonia. Features of their course in elderly people. Other complications from the respiratory system. Complications associated with deep discirculatory changes and hemorrhages in the parenchymal organs. Typical complications from the nervous system. Forecast. Diagnostics. The value of clinical and epidemiological data. Laboratory diagnostics: virological, serological (hemagglutination inhibition reaction, complement binding reaction, neutralization reaction). Express diagnostics of influenza - immunofluorescence method. Differential diagnosis. Treatment. Indications for hospitalization. Home treatment program. Mode. Etiotropic therapy: oseltamivir, zanamivir, arbidol, anti-influenza donor immunoglobulin, interferon and its inducers. Principles and means of pathogenetic therapy. Indications for the appointment of antipyretic drugs. Indications for the appointment of antibiotic therapy. Local treatment of catarrhal syndrome. Treatment of severe and complicated forms of influenza. Prevention. Isolation of the patient, individual prophylaxis. Emergency prevention of influenza in the outbreak. Anti-epidemic measures. Specific prevention of influenza.

**Parainfluenza.**Definition Etiology The causative agent of parainfluenza, its most important properties. Antigenic stability of parainfluenza virus. Epidemiology. Sources of infection. The mechanism of infection and ways of spreading the infection. Susceptibility. Immunity. The incidence of the population. Sporadic diseases and epidemic outbreaks. Seasonality. Pathogenesis, pathological anatomy. The predominant defeat of the virus of the mucous membrane of the nasal passages, larynx, trachea. The importance of viremia in the pathogenesis of parainfluenza. The mechanism of development of stenosis of the larynx with parainfluenza. Clinic. Incubation period. Initial symptoms of the disease. Parainfluenza laryngitis and rhinolarynotracheitis. The typical course of parainfluenza in adults. Features of the course of parainfluenza in children. Complications. Laryngeal stenosis clinic. Forecast. Diagnostics. The value of clinical data. Possibility of clinical diagnostics (hemagglutination

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inhibition reaction, neutralization reaction, hemasorption delay reaction). Application of the immunofluorescent method of express diagnostics. Treatment. Indications for hospitalization. Home treatment program. Mode. Pathogenetic and symptomatic therapy. Indications for etiotropic therapy. Emergency therapy for laryngeal stenosis. Treatment at different stages of "false croup". Prevention. Early isolation of the patient. Individual prevention. Home treatment program. Mode. Pathogenetic and symptomatic therapy. Indications for etiotropic therapy for laryngeal stenosis. Treatment at different stages of "false croup". Prevention. Early isolation of the patient. Individual prevention. Home treatment program. Mode. Pathogenetic and symptomatic therapy. Indications for etiotropic therapy. Emergency therapy for laryngeal stenosis. Treatment at different stages of "false croup". Prevention. Early isolation of the patient. Individual prevention. Home treatment program. Mode. Pathogenetic and symptomatic therapy. Indications for etiotropic therapy. Emergency therapy for laryngeal stenosis. Treatment at different stages of "false croup". Prevention. Early isolation of the patient. Individual prevention. Home treatment program. Mode. Pathogenetic and symptomatic therapy. Indications for etiotropic therapy. Emergency therapy for laryngeal stenosis. Treatment at different stages of "false croup". Mode. Pathogenetic and symptomatic therapy. Indications for etiotropic therapy. Emergency therapy for laryngeal stenosis. Treatment at different stages of "false croup". Prevention. Early isolation of the patient. Individual prevention. Early isolation of the patient. Individual prevention.

Adenovirus infection. Definition. Etiology. Pathogens, their serotypes and basic properties. Stability in the external environment. Epidemiology. Sources of infection. Ways of isolating the virus from the patient's body. The mechanism of infection and ways of spreading the infection. Susceptibility. Immunity. Seasonality. Morbidity. Pathogenesis, pathological anatomy. Introduction, localization and reproduction of the virus in the epithelium of the respiratory tract, eyes, intestines. Hematogenous dissemination of the virus. The importance of viremia in the pathogenesis of the disease. Damage to the lymphatic apparatus. Changes in the mucous membranes and internal organs. Clinic. Incubation period. Clinical forms of adenovirus infection and their characteristics. Severity criteria. Features of the course of adenovirus infection in children. Complications. Forecast. Diagnostics. The importance of epidemiological clinical data. Possibility of clinical diagnosis of adenovirus infection in a typical course of the disease. Serological diagnostics (RSK, RTGA, neutralization reaction) and virological methods for recognizing infection. The method of immunofluorescence in the rapid diagnosis of adenovirus infection. Differential diagnosis. Treatment. Indications for hospitalization. Home treatment program. Mode. Pathogenetic and symptomatic therapy. Emergency therapy for laryngeal stenosis. Therapy at different stages of "false" croup. Prevention. Anti-epidemic measures. Individual prevention. Treatment. Indications for hospitalization. Home treatment program. Mode. Pathogenetic and symptomatic therapy. Emergency therapy for laryngeal stenosis. Therapy at different stages of "false" croup. Prevention. Anti-epidemic measures. Individual prevention. Treatment. Indications for hospitalization. Home treatment program. Mode. Pathogenetic and symptomatic therapy. Emergency therapy for laryngeal stenosis. Therapy at different stages of "false" croup. Prevention. Anti-epidemic measures. Individual prevention.

**Respiratory syncytial infection.**Definition. Etiology. The causative agent of MS infection, its most important properties. Epidemiology. Sources of infection. The mechanism of damage, ways of spreading the infection. Susceptibility. Sporadic and epidemic morbidity. Immunity. Pathogenesis, pathological anatomy. The predominant infection of the lower respiratory tract mucosa Features of the defeat of the epithelium of the bronchi and alveoli. Clinic. Incubation period. Initial symptoms of the disease. Asthmatic Syndrome. Bronchitis, bronchiolitis, pneumonia. The course of MS infection. Forecast. Diagnostics. The value of clinical data. The complexity of nosological diagnosis without laboratory results. Serological and virological diagnostics. The value of the immunofluorescence method. Treatment. Indications for hospitalization. Organization possibilities and home treatment program. Mode. Pathogenetic and symptomatic therapy. Indications for the use of antibiotic therapy. Prevention.

**Rhinovirus infection.** Definition. Etiology. The causative agent of rhinovirus infection, its properties. Epidemiology. Sources of infection. Ways of transmission of infection. Susceptibility. The incidence of the population. Pathogenesis. The predominant lesion of the

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epithelium of the nasal mucosa. Clinic. Incubation period. Initial manifestations of the disease, their further development. Diagnostics. The value of clinical data. The complexity of clinical nosological diagnosis without laboratory data. Immunofluorescence method. Treatment. Organization of treatment at home. Pathogenetic and symptomatic therapy. Prevention. Early isolation of the patient. Individual prevention.

#### Topic 22. COVID-19. New coronavirus infection.

Definition. Etiology. The causative agent, its main properties. Pathomorphology of the causative agent. Varieties of coronavirus. The stability of the pathogen in the external environment. Epi-demiological characteristics. Pandemic of a new coronavirus infection. Standard case definition for novel coronavirus infection. Pathogenesis of a new coronavirus infection. The role of the S-protein of the virus in the penetration into the target cell. Cytokine storm. Dysregulation of the immune response. SARS-Cov-2 associated endotheliitis. Clinical picture and clinical forms of a new coronavirus infection. At-risk groups. The severity of the new coronavirus infection. Damage to the bronchopulmonary system of the new coronavirus infection. Damage to the cardiovascular system. Damage to the central and peripheral nervous system. Skin lesions with a new coronavirus infection. Damage to other organs in a new coronavirus infection. Diagnostics of the new coronavirus infection. Confirmation of the diagnosis. Determination and prediction of the severity of the course of the disease. Radiation diagnostic methods used for new coronavirus infection. Treating a new coronavirus infection. Etiotropic therapy. Pathogenic therapy. Symptomatic therapy. Prevention of new coronavirus infection is non-specific, chemoprophylaxis. Specific prophylaxis is a vaccine against a new coronavirus infection. Vaccines against new coronavirus infection.

#### **Topic 23. Meningococcal infection.**

Definition. Etiology. The causative agent, its main properties. Serological groups and types of meningococcus. Epidemiology. Sources of infection. The role of meningococcal carriers in the spread of the disease. The mechanism of infection and ways of spreading the infection. The susceptibility of the population. At-risk groups. Immunity. Periodicity of epidemic outbreaks, seasonality. Morbidity. Pathogenesis, pathological anatomy. The introduction of the pathogen. Hematogenous and lymphogenous generalization of infection. Overcoming the blood-brain barrier. Role of toxinemia and allergic component in pathogenesis. The mechanism of development of infectious toxic shock, cerebral hypertension, swelling and edema of the brain, disseminated intravascular coagulation and acute adrenal insufficiency (Waterhauch-Friderichsen syndrome) Clinic. Classification of forms of meningococcal infection. Incubation period. Clinic of meningococcal nasopharyngitis, meningococcal meningitis, meningococcemia, the nature of skin rashes. Meningococcal meningoencephalitis. Hyperacute meningococcal sepsis. Features of the clinical course in children. Complications. Clinical syndromes: infectious toxic shock, acute adrenal insufficiency, swelling and cerebral edema. Outcomes. The prognosis for various forms of meningococcal infection. Diagnostics. The importance of epidemiological data in the recognition of localized and subclinical forms. The importance of clinical examination of patients for the diagnosis of various forms of meningococcal infection. Identification of the pathogen in the nasopharyngeal mucus, blood and cerebrospinal fluid (bacterioscopic and bacteriological studies). Serological diagnostic methods. The value of CSF research in the diagnosis of meningitis. Differential diagnosis. Treatment. Urgent treatment of patients with antibiotics at the prehospital stage. Complex etiotropic and pathogenetic therapy and its organization in specialized departments and centers. Principles and tactics of antibiotic therapy. Methods and means of pathogenetic therapy of various forms of meningococcal infection. Treatment of infectious toxic shock, acute adrenal

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insufficiency. Prevention. Emergency prevention of the disease, identification and sanitation of carriers of meningococcus. Prospects for specific prevention. acute adrenal insufficiency. Prevention. Emergency prevention of the disease, identification and sanitation of carriers of meningococcus. Prospects for specific prevention. acute adrenal insufficiency. Prevention. Emergency prevention of the disease, identification and sanitation of carriers of meningococcus. Prospects for specific prevention. acute adrenal insufficiency. Prevention. Emergency prevention of the disease, identification and sanitation of carriers of meningococcus. Prospects for specific prevention.

#### Topic 25. Diphtheria

Definition. Etiology. Properties of the pathogen. Diphtheria bacillus options. Epidemiology. Sources of infection. The role of healthy bacteria carriers in the spread of infection. The mechanism of infection and ways of spreading the infection. At-risk groups. The predominance of adult age groups. Frequency and seasonality of epidemic outbreaks. Pathogenesis, pathological anatomy. Entrance gate of infection. Introduction of infection. Local and general resorptive action of exotoxin. Development of diphtheria and croupous inflammation. The role of the resorptive action of exotoxin in damage to the lymphatic system, circulatory system, myocardium, adrenal glands, and nervous system. Features of the pathogenesis of toxic and hypertoxic diphtheria. Clinic of diphtheria in adults. Incubation period. Classification of clinical forms of diphtheria. Localized oropharyngeal diphtheria. Widespread oropharyngeal diphtheria. Toxic diphtheria of the oropharynx, features of the course in adults. Characteristics of subtoxic diphtheria, toxic diphtheria I-III degree, hypertoxic diphtheria, hemorrhagic diphtheria. Diphtheria of the larynx (croup), stages of croup, features of the course in adults. Characteristics of common croup. Diphtheria of the nose. Rare localizations of diphtheria. Combined on localization forms of diphtheria. Complications of diphtheria in adults. The frequency and timing of complications. The value of alcoholism for the development of severe and complicated forms. Myocarditis. Its course with toxic diphtheria II-III degree. Damage to the nervous system. Diphtheria polyneuropathy. Kidney damage. Outcomes. Forecast for different forms of diphtheria. Diagnostics. The value of epidemiological and laboratory data for the diagnosis of localized oropharyngeal diphtheria. Clinical diagnostic criteria for typical forms of diphtheria. Laboratory research methods. Bacteriological diagnostics. Serological diagnostics. Immunochemical and immunological diagnostic methods. Assessment of the state of antitoxic antidiphtheria immunity. Differential diagnosis. The value of differential diagnosis with angina of various etiology. Features of differential diagnosis of larvngeal diphtheria, toxic forms of the disease. Treatment. Specific therapy with antitoxic antidiphtheria serum. Doctor's tactics for suspected localized diphtheria, toxic diphtheria and diphtheria croup. Determination of single and course doses, methods of serum administration. Rules for the introduction of antitoxic antidiphtheria serum in localized forms, with toxic diphtheria, croup, combined forms of the disease. Antibiotic therapy for subtoxic and toxic forms. The choice of antibiotics. Pathogenetic therapy. Desensitizing drugs. Indications for the appointment of corticosteroids. Detoxification therapy. Correction of hemodynamic disorders. Features of the treatment of toxic diphtheria, hypertoxic and hemorrhagic diphtheria, severe combined forms. Plasmapheresis. Hemisorption. Treatment of diphtheria of the larynx. Indications for intubation and tracheostomy. Treatment of complications of diphtheria. Shock therapy. Treatment of specific myocarditis, polyradiculoneuropathy, acute respiratory failure. Rehabilitation of patients who have undergone severe forms and complications of diphtheria. Prevention. Active immunization. Outbreak activities. Vaccination of convalescents. Identification and sanitation of bacteria carriers.

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#### **Topic 25. Infectious mononucleosis**

Definition. Etiology. Modern ideas about the etiology of the disease. Epidemiology. Sources of infection, Mechanism of damage. Age susceptibility. Immunity. Morbidity. Pathogenesis, pathological anatomy. Clinic. Classification of clinical forms. Incubation period. A characteristic symptom complex of the disease. Hematological changes and their dynamics. Atypical variants of the disease. Forecast. Diagnostics. Diagnostic value of clinical data. The decisive importance of hematological research. Serological diagnostics. Microexpress methods in the diagnosis of infectious mononucleosis. Differential diagnosis. Treatment. Indications for hospitalization. Home treatment program. Symptomatic therapy. Indications for antibacterial and glucocorticosteroid therapy. Prevention. Early isolation of the patient. Individual prevention.

#### Topic 26. Angina, differential diagnosis with diphtheria

Definition. Etiology. Pathogens. Their most important properties. Associations of pathogens. Epidemiology. Sources of infection. The value of bacteria carriers. Mechanisms and ways of transmission. Susceptibility. Immunity. Seasonality. Pathogenesis, pathological anatomy. Clinic. Incubation period. General and local symptoms. The nature of the throat change. Clinical features of Simanovsky-Vincent's angina. Changes in the cardiovascular system. Complications. Metatonsillar (tonsillogenic) diseases. Diagnostics. Clinical data. Bacteriological research. Serological tests: determination of anti-streptococcal antibodies. Differential diagnostics. Particular attention should be paid to differential diagnosis with diphtheria. Treatment. Indications for hospitalization. Organization of treatment at home. Mode. Antibiotic therapy. Pathogenetic therapy. Treatment of complications. Prevention. Early detection and hospitalization of the patient. Disinfection in the outbreak for group diseases. Bicillin prophylaxis in collectives.

#### **Topic 27. Mycoplasma infection**

Definition. Etiology. Mycoplasma pathogenic for humans. General properties of mycoplasmas. Epidemiology. Sources of infection, mechanisms of transmission and transmission routes for various forms of the disease. Seasonality. Sporadic morbidity and local outbreaks. Pathogenesis, pathological anatomy. Entrance gate of infection. Infection with mycoplasmas and the development of manifest forms of the disease. Generalization of infection. Mechanisms of pathological changes in various organs and systems. Pathogenetic significance of toxic substances (exotoxin). Intrauterine fetal injury. Clinic. Clinical forms of mycoplasma infection. Incubation period. Features of the clinical course of mycoplasma pneumonia. Abacterial urethritis. Diseases of the central nervous system. Complications. Forecast. Diagnostics. The decisive importance of laboratory research methods. Identification of mycoplasmas using elective media. Serological methods: RNGA, RSK. Differential diagnosis. Treatment. Etiotropic therapy of mycoplasma pneumonia. Antibiotics effective in the treatment of mycoplasma infection. Pathogenetic therapy. Treatment of complications. Prevention. Isolation of the patient with respiratory forms of the disease. Individual prevention. Prospects for specific prevention.

#### **Topic 28. Herpetic infection**

Definition. Etiology. Herpes viruses, their main properties. Classification of herpes viruses. Family of heresy viruses:  $\alpha$ ,  $\beta$  and  $\gamma$ . Herpes simplex types 1 and 2. Varicella-zoster. Epstein-Barr virus. Cytomegalovirus. Herpes viruses 6, 7 and 8 types. Epidemiology. Sources

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of infection, transmission mechanisms. Congenital herpes infection, transplacental transmission of the virus. Pathogenesis, pathological anatomy. Clinic. Clinical forms of infection. Incubation period. Herpetic skin lesions. Herpetic lesions of the mucous membrane of the eyes. Damage to the nervous system. Relapses of herpes infection. Complications. Outcomes. Diagnostics. The value of clinical and laboratory data. Isolation of the virus. Serological diagnostics (RSK, neutralization reaction) Differential diagnosis. Treatment. Antiherpetic chemotherapy drugs in the treatment of various forms of lesions. Vaccine therapy. Prevention. Prevention of contact and airborne spread of infection, vaccine prophylaxis and immunoprophylaxis of recurrent herpes infection.

#### Topic 29. Blood infections. Hemocontact viral hepatitis.

Viral hepatitis B. Etiology. Dane's particle, its antigenic structure. Epidemiology. Sources of infection. Epidemiological significance of "healthy" virus carriers and patients with chronic viral hepatitis. Transfer mechanism. Artificial and natural transmission routes. The value of percutaneous (household) and sexual transmission. Susceptibility. At-risk groups. Immunity. Pathogenesis, pathological anatomy. Viral immunogenetic concept of pathogenesis. Features of the interaction of the virus with hepatocytes and cells of the immune system. Mechanisms of hepatocyte cytolysis and cholestasis. Features of the pathogenesis of fulminant hepatitis and chronic active hepatitis. Morphological changes in the liver. The role of immunocomplex processes with the participation of HbsAg in the formation of extrahepatic lesions. Clinic. The incubation period and its duration. The duration and clinical manifestations of the preicteric period. Variants of the preicteric period. Clinical characteristics of the icteric period. The period of convalescence. Clinical diagnostic criteria for viral hepatitis B. Variants of the course of hepatitis B. Criteria of severity. Complications. Clinical characteristics of acute hepatic encephalopathy (EPE I-IV degree). Relapses and exacerbations of the disease. Outcomes and prognosis of acute viral hepatitis B. Chronic viral hepatitis B, clinical characteristics of its forms. Outcomes. Forecast. Diagnostics. The value of clinical and epidemiological data. Immunological diagnostics. The value of various immunological markers of viral hepatitis B for diagnosis and prognosis of the course. Biochemical studies: detection of hyperenzymemia, disorders of pigment and protein metabolism and their clinical interpretation. Instrumental diagnostic methods (ultrasound of the liver, liver scanning, puncture biopsy, computed tomography, etc.). Features of the diagnosis of chronic viral hepatitis B. Differential diagnosis. Treatment. The value of the diet therapy regimen. The use of interferon preparations, laser therapy, HBO. Principles and methods of emergency treatment of acute liver failure. Treatment of other complications of viral hepatitis B. Therapeutic tactics for chronic viral hepatitis B. Rehabilitation of those who have been ill. Prevention. The importance of early and active detection of patients and virus carriers. Sanitary and hygienic measures. Clinical examination of patients and carriers. Prospects for active and passive immunization. Vaccines of the 1st and 2nd generations. Emergency prevention. Specific immunoglobulin B.

**Viral hepatitis D.**Etiology. The causative agent, its obligatory relationship with the hepatitis B virus. Epidemiology. Sources of infection. Transfer mechanism. Simultaneous infection with the hepatitis B virus (coinfection). Infection of convalescents of viral hepatitis B, carriers of HbsAg and patients with chronic viral hepatitis B (superinfection). At-risk groups. Pathogenesis. Potentiation of delta infections of the pathogenic effect of the hepatitis B virus. Direct cytolytic action of the delta virus. on the hepatocyte. Repeated replications of the delta virus and disease exacerbations. Suppression of the T-system of immunity. Features of the pathogenesis of coinfection and superinfection in viral hepatitis D. The role of long-term intrahepatocytic expression of the pathogen in the chronicity of the process. Clinic. Acute

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hepatitis B and D ("mixed hepatitis D + B"). Incubation period. Features of the preicteric period. The acyclicity of the icteric period. Fulminant current. Other outcomes. Forecast. Acute hepatitis D in convalescents of viral hepatitis B - carriers of HbsAg, in patients with chronic viral hepatitis B. Incubation period. Features of preicteric and icteric periods. Ascitic syndrome. Early signs of chronic hepatitis. Forecast. Chronic viral hepatitis D. Clinical characteristics. Outcomes. Forecast. Diagnostics. The value of clinical and epidemiological data. Immunological diagnostics of delta infection in combination with the determination of markers of the hepatitis B virus. Features of hyperenzymemia and other biochemical parameters. Treatment. Peculiarities of therapy of moderate and severe forms of acute viral hepatitis D and chronic active viral hepatitis D with the use of interferon preparations. Laser therapy, HBO. Hemisorption,

Viral hepatitis C. Definition. Etiology. Modern ideas about the antigenic structure of the pathogen. Epidemiology. Sources of infection: sick and healthy virus carriers. The role of patients with anicteric forms of the disease. The determining value of blood transfusions, the introduction of blood products. Additional value of sexual and percutaneous (household) transmission. At-risk groups. Pathogenesis. Features of the virus action on hepatocytes in acute and chronic viral hepatitis C. The importance of immune system defects for the formation of chronic hepatitis. Involvement of the causative agent of hepatitis C in the formation of a number of autoimmune extrahepatic lesions, primary liver cancer Clinic. Incubation period. Features of the preicteric period. Icteric period, its clinical characteristics. Anicteric and worn out forms. Frequency of transition to chronic hepatitis in icteric and anicteric forms. The phenomenon of "sham recovery". Chronic hepatitis C, its features. Other outcomes of the disease. Diagnostics. The value of clinical and epidemiological data. The defining role of immunological diagnostics. The timing of the detection of antibodies to the virus in acute viral hepatitis C. Test systems of various generations for the detection of antibodies to the virus. Polymerase chain reaction method for detecting virus RNA in the blood. The value of biochemical parameters. Diagnosis of chronic hepatitis C. The role of liver puncture biopsy in the diagnosis of asymptomatic cases. Differential diagnosis. Treatment. Features of therapy for chronic hepatitis C. Prognosis. Prevention. Active identification of patients and virus carriers. Organization of measures to prevent post-transfusion hepatitis.

#### Topic 30. Rickettsioses. Epidemic typhus. Brill-Zinsser disease

General clinical, etiological and epidemiological characteristics of rickettsioses, their classification. Anthroponous and zoonotic rickettsioses. Natural foci of rickettsioses.

**Epidemic typhus. Brill-Zinsser disease.**Etiology. The most important properties of Provachek rickettsia. Vegetative and spore forms. Alpha - forms of Provacek's rickettsia. Etiological identity of epidemic typhus and Brill-Zinsser disease. Epidemiology. Source of infection. Patient with Brill-Zinsser disease as a possible source of infection. The mechanism of infection with epidemic typhus. Lice are carriers of Provachek's rickettsia. Susceptibility. Immunity. Seasonality. Morbidity. Epidemiological features of recurrent typhus - Brill-Zinsser disease. Pathogenesis. Pathological anatomy. The main phases of pathogenesis. The role of the toxic factor. The nature of vascular lesions in different phases of pathogenesis. Specific vasculitis and specific lesions of the nervous system. Formation of non-suppurative specific meningoencephalitis. Lesions of internal organs. Persistence of rickettsia in the human body. Transforming them into alpha forms. Relapses of typhus. Qualitative similarity of the pathogenesis and morphogenesis of typhus and Brill-Zinsser disease. Clinical characteristics of the height of the disease. A characteristic rash. Symptoms of damage to the cardiovascular and nervous system. Complications. Features of the course of Brill-Zinsser disease. Forecast.

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Diagnostics. The value of epidemiological, anamnestic, clinical and laboratory data for the timely recognition of typhus. Clinical and epidemiological criteria for the diagnosis of Brill-Zinsser disease. The decisive importance of serological research methods in the diagnosis of the disease. Differential diagnosis. Treatment. Compulsory hospitalization. Treatment of patients at the prehospital stage. Etiotropic therapy. Methods and means of pathogenetic therapy. Features of therapy for severe forms of the disease. The importance of regimen and patient care. Prevention of complications. Prevention. Early isolation and adequate patient care. Disinfection and disinsection in the outbreak Rules of medical supervision of the outbreak of typhus. Specific prophylaxis, indications for its implementation.

#### **Topic 31. Tick-borne borreliosis**

Definition. Etiology. Various types of borrelias are the causative agent of tick-borne borreliosis. Epidemiology. Reservoirs and vectors of infection. Natural and anthropurgic foci. The mechanism of infection and ways of spreading the infection. Susceptibility. Immunity. Seasonality. Pathogenesis and pathological anatomy. Clinic. Incubation period. Presence of primary affect. The main manifestations of the disease and their dynamics. Forms of severity and course of the disease. Asymptomatic forms. Complications. Forecast. Diagnostics. The value of the epidemiological history and the results of clinical examination of patients. Laboratory diagnostics detection of borrelia in smears and a thick drop of blood. Biological tests on animals. Differential diagnosis. Treatment. Antibiotic therapy. Pathogenetic and symptomatic treatment of patients. Prevention. Anti-epidemic measures. Timely identification and isolation of sources of infection. Disinsection. Deratization. Personal prevention.

Systemic tick-borne borreliosis is Lyme disease.Definition. Etiology. The causative agent, its properties. Epidemiology. Reservoirs and vectors of infection ... Mechanism of infection. and ways of spreading the infection. Natural focus (including in the central regions of Russia). Possibilities of long-term stay of the pathogen in the body of patients. Pathogenesis of various stages of the disease. Pathological anatomy. Clinic. Incubation period. Primary affect. Stages of the course of the disease. Typical and less persistent stage I symptoms. Stage II clinical polymorphism. Damage to the cardiovascular and nervous systems. Features of the clinical course of stage III. Joint damage options. Complications. Forecast. Diagnostics. Importance of epidemiological and clinical data. Laboratory diagnostics□ isolation of borrelia, immunological studies (RNIF, ELISA, immunoblot). Study of paired sera at different periods of the disease. Differential diagnosis. Treatment. Etiotropic therapy. The need for its implementation in all stages of the disease due to the long stay of the pathogen in the body. Pathogenetic therapy at different stages of the disease. Prevention and treatment of complications. Prevention. Anti-epidemic measures. Disinsection. Personal prevention.

#### Topic 32. Malaria

Definition. Etiology. The causative agents of human malaria. Species, subspecies and strains of plasmodia. Cycles of development of parasites in the human body (schizogony) and mosquito (sporogony). Features of schizogony of certain types of plasmodia. Drug resistance of the pathogen. Epidemiology. Sources of infection. Carriers of infection. Infection mechanisms. Post-transfusion malaria. Susceptibility. Intrauterine infection of the fetus. Features of immunity. The spread of malaria. Current epidemiological situation for malaria. Malaria in Russia. Pathogenesis and pathological anatomy. The value of the reproduction of plasmodia in human erythrocytes. The mechanism of development of an attack of the disease. The impact on the body of metabolic products of parasites and the breakdown of erythrocytes. "Pyrogenic threshold". The importance of sensitization of the organism and its reactivity. Features of the pathogenesis of tropical malaria. Pathogenesis of anemia, malarial coma, hemoglobinuria.

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Pathogenesis of early and late relapses. Pathological changes in the spleen, liver, bone marrow, lymph nodes, kidneys in various types of malarial disease. Clinic. Forms of malaria:three-day, four-day, tropical, ovalemalaria. Features of the clinical course of malaria caused by various types of plasmodia. Phases of the disease. Early and late relapses of the disease. Malaria coma. Other complications. Congenital malaria. Schizoitic malaria. Forecast. Diagnostics. The value of clinical and epidemiological data in the diagnosis of malaria. Detection of Plasmodium malaria in a smear and a thick drop of blood is crucial. Parasitological research technique. Serological research methods (reaction of fluorescent antibodies and RNGA). Differential diagnosis. Treatment. The main directions of therapy. Relief of acute manifestations of malaria and prevention of relapses. The main antimalarial chemotherapy drugs, their mechanism of action. The combined use of drugs. Treatment of malarial coma. Malaria therapy, caused by chemoresistant forms of pathogens. Prevention. The importance of timely detection and treatment of patients and parasitic carriers. Vector control. Chemoprophylaxis. Prevention of importation of malaria. The WHO malaria control program, its results.

#### **Topic 33. Plague**

Definition. Plague is a quarantine (conventional) infection. Etiology. The most important properties of the pathogen. Epidemiology. Plague microbe reservoirs in nature. Natural foci of plague, their distribution, including on the territory of Russia. Primary and secondary plague foci. Ways of spreading the infection. Fleas are carriers of the plague pathogen. The particular importance of patients with pneumonic forms of plague as a source of infection. Immunity. Seasonality. Pathogenesis, pathological anatomy. The defining value of the entrance gate of infection for the clinical course (forms) of the disease. Microbial introduction, lymphogenous and hematogenous spread. Damage to the cardiovascular system, lymphatic system and respiratory system. Clinic. Clinical classification. Incubation period. The initial period of the disease, its main manifestations:intoxication syndrome, cardiovascular disorders. Clinic of cutaneous, bubonic, septic, pulmonary forms of plague. Characteristics of clinical symptoms in the dynamics of the disease. Complications, outcomes. Forecast. Diagnostics. The diagnostic value of the epidemiological history and the results of clinical examination of patients. Bacterioscopic, bacteriological and serological diagnostic methods. Rules for taking pathological material for laboratory research and its transportation. Biological diagnostic method. Express diagnostics of the plague. Differential diagnosis. Treatment. Etiotropic therapy. Choice of antibiotics. Doses of antibiotics and duration of treatment for various forms of the disease. Pathogenetic and symptomatic therapy. Means of symptomatic therapy. Hospital discharge rules. Prevention. Preventive measures in natural foci and along the pathways of infection. Prevention and measures in the outbreak. Immediate compulsory hospitalization of the patient in a specialized hospital. Isolation of contact persons. Personal prevention of healthcare professionals. Emergency prevention. Plague vaccination rules. Preventive measures in ports and airports to prevent the import of plague.

#### Topic 34. Tularemia.

Definition. Etiology. Characteristics of the pathogen. Epidemiology. Tularemia as a natural focal disease, types of foci. Reservoirs of infection in nature, including the central regions of Russia. Blood-sucking insects are carriers of the pathogen. Infection mechanisms. Human susceptibility. Immunity. Pathogenesis, pathological anatomy. The defining value of the entrance gate for the clinical course (form) of the disease. Damage to the lymphatic apparatus. Bacteremia Generalization of infection. Sensitization. Granuloma formation. The defeat of the internal organs. Clinic. Clinical classification of tularemia. Incubation period. The initial

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manifestations of the disease. The clinical course of various forms of the disease. Complications. Outcomes. Diagnostics. The value of clinical and epidemiological data. Serological and allergological diagnostic methods. Differential diagnosis. Treatment. Etiotropic treatment. Features of pathogenetic therapy for various forms of the disease. Rehabilitation. Prevention. Improvement of natural foci. Deratization, disinfection and disinsection. Indications and methods of specific prevention. Specific prevention.

#### **Topic 35. Hemorrhagic fevers**

Definition. General clinical and epidemiological classification of hemorrhagic fevers. Spread. Causative agents of hemorrhagic fevers. Brief description of tropical hemorrhagic fevers (African hemorrhagic fevers, Dengue fever). Concept of hemorrhagic fevers of Southeast Asia. The possibility of delivery. Preventive measures.

**Yellow fever.** Definition. Yellow fever is a quarantine (conventional) infection. Etiology. The causative agent and its main properties. Epidemiology. Distribution area. The reality of importation into non-endemic areas. Natural and urban centers. Sources. Carriers. Infection mechanism. Immunity. Seasonality. Pathogenesis and pathological anatomy. Clinic. Incubation period. The clinical picture by periods of illness. The peak period, its phases. Outcome period. Complications. Forecast. Diagnostics. The value of the epidemiological history. Clinical diagnostics. Laboratory diagnostics:virus isolation, serological diagnostic methods (RSK, RNIF, RTPGA). Treatment. Pathogenetic and symptomatic therapy. Prevention. The importance of early diagnosis and isolation of the patient. Disinsection. Quarantine events. Registration with WHO. Specific prophylaxis, indications for vaccination.

**Hemorrhagic fever with renal syndrome (HFRS).** Definition. Etiology. The causative agent, its main properties, the serovars of the virus, the most pathogenic for humans. Epidemiology. Natural focal point, including in the central regions of Russia. Sources, mechanism of infection and ways of spreading infection. Immunity. Morbidity. Seasonality. Pathogenesis and pathological anatomy. Virus injection. Viremia and toxemia. Vasopathy. The mechanisms of development of hemorrhagic syndrome, lesions of the nervous system, kidneys. The value of autoallergy in pathogenesis. Pathological changes in the internal organs. Clinic. Incubation period. The cyclical nature of the disease. Hemorrhagic manifestations. Renal syndrome. Variants of the course of the disease. Acute renal failure. Other complications. Dynamics of the recovery period and residual effects. Forecast. Diagnostics. The importance of epidemiological data. Clinical diagnostics (RSIF) with the study of paired sera at different periods of the disease. Treatment. Pathogenetic and symptomatic therapy. Intensive care for acute renal failure. Indications for extracorporeal dialysis. Clinical examination of the ill.

**Crimean (southern) hemorrhagic fever**. Definition. Etiology. Epidemiology. Natural foci. Sources of infection. Carriers. Infection mechanism. Possibilities of intrauterine infection. Seasonality. Pathogenesis and pathological anatomy. Clinic. Incubation period. The main manifestations of the disease. Hemorrhagic syndrome. Bleeding. Other complications. Forecast. Diagnostics. Importance of epidemiological and clinical data. Virological and serological studies. Differential diagnosis. Treatment. Pathogenetic and symptomatic therapy. Prevention.

**Omsk hemorrhagic fever.** Definition. Etiology. Epidemiology. Infection reservoirs in nature. Carriers of the virus. Infection mechanism. Seasonality. Pathogenesis and pathological anatomy. Clinic. Incubation period. The main clinical manifestations of the disease. Complications. Forecast. Diagnostics. Laboratory diagnostics (RSK, RN). Treatment. Prevention.

**Ebola Fever.** Epidemiology. Natural foci. Sources of infection. Carriers. Infection mechanism. Seasonality. Pathogenesis and pathological anatomy. Clinic. Incubation period.

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The main manifestations of the disease. Hemorrhagic syndrome. Bleeding. Other complications. Forecast. Diagnostics. Importance of epidemiological and clinical data. Virological and serological studies. Differential diagnosis. Treatment. Pathogenetic and symptomatic therapy. Prevention.

#### **Topic 36. Seasonal encephalitis**

The concept of primary and secondary encephalitis. Transmissible arboviral encephalitis.

Tick-borne encephalitis. Two nosogeographic clinical variants (eastern and western). Etiology. Basic properties of group B arbovirus. Epidemiology. Natural focus. Infection reservoirs in nature. The mechanism of infection, ways of spread. Natural immunization in natural foci. Seasonality. Pathogenesis and pathological anatomy. Clinic. Incubation period. The main clinical manifestations of the disease. Meningeal, encephalitic, polyencephalomyelitis syndromes. Forms of disease severity. Chronic forms of the disease. Complications. Outcomes. Two-wave milk fever. Forecast. Diagnostics. Epidemiological data. Clinical diagnostics. Virus isolation and serological diagnostics (RSK, RDPA, RNGA, RN). Differential diagnosis. Treatment. Application of specific serum immunoglobulin and homologous hyperimmune gamma globulin. Pathogenetic and symptomatic therapy. Rehabilitation of those who have been ill. Prevention. Anti-epidemic measures and the fight against ticks in natural foci. Vaccination.

**Japanese encephalitis**. Definition. Etiology. Epidemiology. Natural focus. Infection reservoirs. Carriers of the virus. Infection mechanism. Immunity. Seasonality. Pathogenesis and pathological anatomy. Clinic. Incubation period. The main clinical manifestations of the disease. The nature of the course of the disease. Complications. Forecast. Diagnostics. The value of the complex of epidemiological, clinical and laboratory data. Isolation of the virus from blood and cerebrospinal fluid. Serodiagnostics. Differential diagnosis. Treatment. Specific therapy (horse hyperimmune serum, gamma globulin). Pathogenetic and symptomatic therapy. Prevention. Disinsection. Vaccination of the population of endemic areas. Seroprophylaxis. The concept of the epidemiology, distribution, clinic and diagnosis of other mosquito encephalitis (St. Louis encephalitis or American, Australian, West Nile,

**California encephalitis**. Definition. Etiology. Arboviruses Inko and Tyaginya. Epidemiology. Natural focus. Virus reservoirs in nature, including in the central regions of Russia. Infection mechanism. The main carriers. Seasonality. Pathogenesis and pathological anatomy. Clinic. Incubation period. Feverish forms without pronounced signs of damage to the nervous system. Mild and asymptomatic forms. Neuroinfectious forms of the disease. Their main clinical syndromes. Complications. Outcomes of the disease. Forecast. Diagnostics. Epidemiological data. Clinical diagnostics. The defining value of clinical diagnostics. Express diagnostics. Differential diagnosis. Treatment. Pathogenetic and symptomatic therapy. Indications for the appointment of antibiotics. Features of treatment for lesions of the nervous system. Rehabilitation of those who have been ill. Prevention. Methods of non-specific prevention. Vector control. The use of repellents.

#### **Topic 37. HIV infection**

Definition. Etiology. Causative agent. Its main properties. Classification. Antigenic and genetic variability. Feature of biological action. Stability in the external environment. Epidemiology. Sources of infection. Mechanism, transmission routes. At-risk groups. Potential for infection in healthcare facilities. Transplacental transmission of infection. Immunity. Forecasting the development of the epidemiological process. Pathogenesis, pathological anatomy. Virus injection. Stages of interaction with immunocytes. Mechanisms of the

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formation of immunological disorders. Activation of pathogens of opportunistic infections and invasions. Mechanisms of development of secondary infectious processes (protozoal infections, mycoses, viral and bacterial infections, including tuberculosis). The emergence of tumors. Pathomorphology. Clinic. Stages of HIV infection. Incubation period. Primary infection. Generalized lymphadenopathy syndrome. Clinical "complex associated with AIDS" (small form). The clinic itself is AIDS. WHO criteria. Periods of HIV infection according to V.I. Pokrovsky. Characteristics of the main opportunistic infections. Characteristics of systemic lesions and course variants. Features of the clinical course of HIV infection in children. Diagnostics. The value of a complex of epidemiological, clinical and laboratory data for the early diagnosis of HIV infection. Clinical and laboratory diagnostics of the "complex associated with AIDS", AIDS itself. Laboratory research methods Characteristics of the main opportunistic infections. Characteristics of systemic lesions and course variants. Features of the clinical course of HIV infection in children. Diagnostics. The value of a complex of epidemiological, clinical and laboratory data for the early diagnosis of HIV infection. Clinical and laboratory diagnostics of the "complex associated with AIDS", AIDS itself. Laboratory research methods Characteristics of the main opportunistic infections. Characteristics of systemic lesions and course variants. Features of the clinical course of HIV infection in children. Diagnostics. The value of the complex of epidemiological, clinical and laboratory data for the early diagnosis of HIV infection. Clinical and laboratory diagnostics of the "complex associated with AIDS", AIDS itself. Laboratory research methods:serological (ELISA, immunoblotting, etc.), virological (virus isolation), study of the state of cellular immunity. Treatment. Etiotropic therapy. Antiviral drugs. Immunomodulating and immunosubstitution therapy. Treatment of opportunistic infections, including tuberculosis, invasions and oncopathology. Symptomatic therapy. Emergency therapy. Prevention. Personal preventive measures. Public prevention. WHO program. Global Strategy to Fight HIV Infection. Legal medical and deontological problems AIDS.

#### **Topic 38. Sepsis**

Definition. Etiology. The variety of causative agents of the disease. Gram-positive and gram-negative cocci. Gram-negative sticks, anaerobes, mushrooms and others. Epidemiology. The determining value of the state of the macroorganism. The sporadic nature of the disease. Entrance gate (site of infection). Characteristics of sepsis by the localization of the entrance gate. The presence of foci of purulent infection in soft tissues, internal organs, etc. Cryptogenic sepsis. Pathogenesis. The generality of the mechanisms of development of the disease with its various etiologies A complex of factors that determine the development of sepsis. The decisive importance of suppression of immunogenesis and nonspecific defense mechanisms for the formation of an acyclic progressive course of the disease. The mechanisms of development of septicemia and septicopyemia. Pathogenesis of septic (infectious toxic) shock, acute adrenal insufficiency, disseminated intravascular coagulation syndrome, secondary septic endocarditis. Clinic. Classification of sepsis (according to the clinical course, according to the place of penetration of the pathogen, according to etiology). The incubation period for exogenous infection. The clinical course of acute sepsis, acute (fulminant) sepsis. Clinic for subacute and recurrent sepsis. The clinical course of chroniosepsis. Features of the clinic of sepsis depending on the gate of penetration of the microbe (percutaneous, obstetric-gynecological, etc.) and on the properties of the pathogen microbe. Clinical signs of secondary septic endocarditis. Thromboembolic processes. Clinic of septic (infectious toxic) shock, acute adrenal insufficiency, DIC syndrome. Diagnostics. The importance of clinical data in the recognition of various forms of sepsis. The role of the primary septic focus of infection. Identification of the pathogen in the blood, in the primary septic focus of infection, in metastatic foci. Differential

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diagnosis with infectious diseases accompanied by high and prolonged fever. Treatment. Complex etiotropic and pathogenetic therapy, and its organization in specialized departments and centers. Remediation of the primary septic focus of infection. Principles and tactics of antibiotic therapy. Methods and means of increasing the non-specific and specific resistance of the organism. Methods and means of pathogenetic therapy of various forms of sepsis. Treatment of septic (infectious toxic) shock. Prevention and treatment of disseminated intravascular coagulation syndrome, thromboembolic complications, acute adrenal insufficiency, acute renal-hepatic failure. Prevention. Strict adherence to asepsis during various surgical, obstetric and other surgical interventions, endoscopy and other instrumental invasive methods of examining patients. Early and rational treatment of diseases that can take a septic course. Immunization with staphylococcal toxoid and other vaccines of certain contingents of healthy and sick people. Emergency prophylaxis with the introduction of specific immunoglobulins. Close monitoring of patients receiving corticosteroids and immunosuppressants. Immunization with staphylococcal toxoid and other vaccines of certain contingents of healthy and sick people. Emergency prophylaxis with the introduction of specific immunoglobulins. Close monitoring of patients receiving corticosteroids and immunosuppressants. Immunization with staphylococcal toxoid and other vaccines of certain contingents of healthy and sick people. Emergency prophylaxis with the introduction of specific monitoring of patients receiving corticosteroids immunoglobulins. Close and immunosuppressants.

#### **Topic 39. Erysipelas**

Definition. Etiology. The main properties of the pathogen. L-forms of streptococcus. Epidemiology. Sources of infection. The mechanism of infection The determining value of an individual genetically determined predisposition to erysipelas. Summer-autumn seasonality. Contagiousness of patients with erysipelas. Pathogenesis, pathological anatomy. Exogenous and endogenous nature of infection. Formation of a focus of infection in the dermis. The mechanism of development of external manifestations: damage to lymphatic and blood capillaries and vessels of the dermis, local immunocomplex process of HRT, pathogenesis of toxic syndrome. Features of the pathogenesis of hemorrhagic forms of erysipelas. The importance of persistence of bacterial and L-forms of streptococcus and immune disorders in the development of chronic recurrent erysipelas. Development mechanisms of secondary elephantiasis. Clinic. Evolution of the clinical course of erysipelas. Clinical classification Incubation period. Intoxication symptoms. Erythematous, erythematous-bullous, erythematous-hemorrhagic, bulloushemorrhagic forms. Severity criteria. The multiplicity of the flow. Chronic recurrent erysipelas. Features of its clinical course. Factors contributing to the chronic course of the disease. Complications. Consequences (persistent lymphostasis, elephantiasis). Forecast. Diagnostics. The diagnostic value of the clinical symptom complex. Immunological studies:determination of anti-streptococcal antibodies and streptococcal antigens in the blood (RPGA, ELISA, RNIF). Differential diagnosis. Treatment. Indications for hospitalization. Organization and program of home treatment. Mode. Etiotropic treatment. Two-cycle antibiotic therapy for frequently Indications erysipelas. Pathogenetic therapy. for the appointment recurrent of immunocorrective and immunostimulating therapy. Treatment of local hemorrhagic syndrome. Physiotherapy. Laser therapy. Local treatment. Treatment of complications. Prevention. Compliance with the rules of hygiene. Recommendations for convalescents. Clinical examination of patients with recurrent erysipelas. Treatment of background aggravating diseases. Bicillin prevention of relapse. Indications for its implementation.

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### **Topic 40. Anthrax**

Definition. Etiology. The most important properties of the pathogen. Epidemiology. Sources and reservoirs of infection. Transmission mechanisms and factors. Epizootological and epidemiological characteristics of the disease. Occupational agricultural, occupational industrial and household diseases. Susceptibility. Immunity. Pathogenesis, pathological anatomy. The introduction of the pathogen. The decisive importance of the entrance gate of infection for the development of various forms of the disease. Pathogenesis of the main clinical manifestations of the disease in its various forms. Internal organ changes. Clinic. Clinical classification of forms of anthrax. Incubation period. Clinical characteristics of the cutaneous form of anthrax. Stages of development of the anthrax carbuncle. Clinic for septic and pulmonary forms. Complications. Outcomes. Forecast. Diagnostics. The value of a professional-epidemiological history, clinical examination data. Laboratory diagnostics:bacterioscopic, bacteriological, biological serological (RNGA with antibody diagnosticum, etc.). Intradermal test. Express methods (ELISA, etc.). Differential diagnosis. Treatment. Etiotropic therapy. Use of a specific anti-anthrax gamma globulin. Preliminary desensitization. Pathogenetic and symptomatic therapy for various forms of the disease. Rehabilitation. Clinical examination of the ill. Prevention. Identification and elimination of foci of infection by the veterinary service. A complex of medical and sanitary and veterinary and sanitary measures. Medical supervision of contacts. Disinfection at the focus of the disease. Specific prophylaxis. Measures to prevent occupational and domestic infections.

### Topic 41. Tetanus

Definition. Etiology. The most important properties of the pathogen. Ability to toxin and spore formation. Stability in the external environment. Epidemiology. Distribution of the causative agent of tetanus in nature. Sources of infection. Infection mechanisms. The relationship between morbidity and injury. At-risk groups. Wartime and peacetime tetanus. Immunity. Pathogenesis, pathological anatomy. Entrance gate of infection. Formation of a focus of infection. Toxinemia. Overcoming by toxins of the blood-brain barrier. Selective action of the toxin on various structures of the nervous system. Mechanisms of convulsive syndrome. Stem intoxication. External respiration disorders. Metabolic disorders. Clinic. Classification of tetanus. Incubation period. Prodromal phenomena. Initial symptoms. Clinic of the height of the disease. Criteria and forms of severity. Local form of tetanus. Complications. Forecast. Diagnostics. The leading diagnostic value of the clinical symptom complex. Differential diagnosis. Treatment. Providing emergency medical care at the prehospital stage. Creation of a regime of complete rest. Features of specific and etiotropic therapy of tetanus. Prescription of anti-tetanus serum, anti-tetanus globulin, toxoid. Preliminary desensitization. Pathogenetic therapy aimed at maintaining vital body functions tetanus globulin, toxoid. Preliminary desensitization. Pathogenetic therapy aimed at maintaining vital body functions anti-tetanus globulin, toxoid. Preliminary desensitization. Pathogenetic therapy aimed at maintaining vital body functions:treatment of convulsive syndrome, hyperthermia, acidosis, apnea crisis. Methods of intensive treatment of patients in intensive care units. Prevention and therapy of complications. The importance of good care and nutrition. Prevention. Methods of general, surgical and specific prevention. Use of tetanus toxoid and tetanus toxoid. Planned and emergency prevention.

### **Topic 42. Rabies**

Definition. Etiology. The main properties of the rabies virus, resistance in the external environment. Epidemiology. Sources and reservoirs of the virus in nature. Epizootics among wild and domestic animals. Ways of human infection. The value of the entrance gate.

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Pathogenesis, pathological anatomy. Introduction and spread of the virus. Damage to the central nervous system. Histomorphological changes in the medulla oblongata, cerebellum, spinal cord, sympathetic ganglia. Taurus Babesh - Negri. Clinic. Incubation period. Stages of the course of the disease. Early symptoms of rabies.

The course of the disease. Atypical forms of rabies. Forecast. Diagnostics. The significance of clinical and epidemiological data and the detection of Babesh-Negri bodies in the brain of dead animals. Using a biological sample. Differential diagnosis. Treatment. Patient care, symptomatic therapy. Prevention. Fighting the source of infection. Sanitary and veterinary measures. Specific prophylaxis using an active-passive method. The use of antirabies gamma globulin. Populations of people at increased risk of contracting rabies. Indications for vaccination and methods of its implementation. Characteristics of vaccines, their effectiveness. Complications of vaccination.

#### **Topic 43. Measles**

Definition. Etiology. Basic data on the causative agent, virus serotypes. Epidemiology. Sources of infection. Mechanisms and factors of transmission of infection. Susceptibility of adults and children. Immunity. Pathogenesis, pathological anatomy. Clinic. Incubation period. The main manifestations of the disease. Evolution of symptoms. Complications. Forecast.

Diagnostics. The role of the epidemiological history.

Laboratory diagnostics: virological and serological studies. Differential diagnosis. Treatment. Pathogenetic and symptomatic therapy. Prevention. Sanitary and educational work.

#### **Topic 44. Echinococcosis.**

The main features of helminth biology and epidemiology, important for the diagnosis of helminthic anthroponosis and helminthic zoonoses. General patterns of the pathological process in helminthiasis. Factors of influence of parasitic worms on the human body (mechanical, sensitizing, toxic, ways of feeding helminths, etc.). Stages (phases) of development of helminthiasis: acute, latent, chronic. Dependence of the clinic of the chronic stage of helminthiasis on the localization in the host organism, the intensity of invasion, and the reactivity of the macroorganism. Doctor's tactics in identifying echinococcosis. Principles of echinococcosis treatment. Anti-nematode anthelmintic drugs of a wide spectrum of action: vermox (mebendazole), indications for surgical treatment. Surgical treatment of echinococcosis.

### SECTION III. EARLY AND DIFFERENTIAL DIAGNOSTICS OF INFECTIOUS DISEASES. EMERGENCY AND EMERGENCY CARE FOR INFECTIOUS PATIENTS

### Topic 45. Early and differential diagnosis of acute febrile diseases. Diagnostic search for fever of unknown origin

Typhoid fever, brucellosis, malaria, sepsis, candidiasis). Management of patients at the prehospital stage. Acute infectious diseases occurring with high and prolonged fever: typhoid fever and paratyphoid fever, acute brucellosis, Brill-Zinsser disease, meningococcal infection, infectious mononucleosis, yersineosis, Q fever, HIV infection, malaria, sepsis, candidiasis. Their early clinical manifestation. Clinical, epidemiological and laboratory diagnostics. Differential diagnosis between infectious diseases occurring with high and prolonged fever.

Fever, definition. Hyperthermia. Fever of unknown origin (LNG). Definition. Classification of fever of unknown origin. Classical LNG. Nosocomial form of LNG. Neutropenic form of LNG. HIV-associated LNG. Diagnostic approach for prolonged fever. Anamnesis and epidemiological history Features in laboratory examinations. Sowing blood.

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Tissue biopsy. Possibilities of LNG serological diagnostics. Diagnosis of systemic vasculitis. X-ray studies with contrast. Radioisotope research. Ultrasound procedure... CT scan. Magnetic resonance imaging.

Diseases that can cause LNG: granulomatous hepatitis, juvenile rheumatoid arthritis, familial Mediterranean fever (periodic illness), wipple disease, bacterial hepatitis, hypergammaglobulinemia d and recurrent fever, ehrlichiosis. Infectious diseases accompanied by prolonged fever. Trial treatment of patients with LNG. Recurrent or intermittent LNG.

Long subfe6... Definition. Stages of differential diagnostic search for prolonged subfebrile condition.

### Topic 46. Early and differential diagnosis of diseases occurring with exanthema syndrome. Doctor's tactics at the prehospital stage.

Measles, rubella, scarlet fever, herpes infection, hemorrhagic fevers, pseudotuberculosis, Lyme disease, typhus - Brill-Zinsser disease, erysipelas, typhoid fever, paratyphoid fever, drug disease. Their early diagnosis. Characteristics of exanthema (spot, roseola, erythema, hemorrhages, papule, tubercle, node, blister, vesicle, bladder, pustule, herpes and their residual effects). Clinical and epidemiological laboratory diagnostics. Differential diagnosis of infectious diseases occurring with exanthema.Management of patients at the prehospital stage.

### Topic 47. Early and differential diagnosis of diseases occurring with lesions of the pharynx and lymphadenopathies. Doctor's tactics at the prehospital stage.

Infectious diseases occurring with the defeat of the pharynx: angina, diphtheria, infectious mononucleosis, scarlet fever, herpangina, tularemia, candidiasis. Semiotics of throat lesions (hyperemia, edema, plaque, their localization, prevalence, color, plaque removal, pain when swallowing, regional lymph nodes). The severity of the intoxication syndrome. Clinical-epidemiological and bacteriological diagnostics. Differential diagnostics. Tactics of managing patients at the prehospital stage.

Early and differential diagnosis of diseases with lymphadenopathies in the clinic of infectious diseases. Infectious mononucleosis, tularemia, plague, felinosis, HIV infection, lymphogranulomatosis, toxoplasmosis, brucellosis, adenovirus infection. Angina. Chronic tonsillitis. Childhood drip infections. Herpesvirus infections. Oncohematological diseases. Management of patients at the prehospital stage.

## Topic 48. Early and differential diagnosis of diseases with jaundice syndrome. Doctor's tactics at the prehospital stage.

Viral hepatitis, leptospirosis, yersineosis, infectious mononucleosis, parasitic liver lesions, malaria, obstructive jaundice of various origins. Clinical and pathophysiological characteristics of jaundice: suprahepatic, hepatic, subhepatic. Kliniko-laboratory syndromes: cytolysis, cholestasis, mesenchymal-inflammatory. Early diagnosis of viral hepatitis. Differential diagnosis of viral hepatitis with jaundice in other infectious diseases. Examination of a patient with jaundice at the prehospital stage if an infectious disease is suspected. Indications for hospitalization. Primary anti-epidemic measures in the focus of infection.Doctor's tactics at the prehospital stage.

## Topic 49. Early and differential diagnosis of diseases associated with diarrheal syndrome. Doctor's tactics at the prehospital stage.

Early and differential diagnosis of diseases occurring with diarrheal syndrome. Dysentery, salmonellosis, foodborne diseases, cholera, viral diarrhea, yersineosis, botulism, parasitic intestinal lesions. Their early clinical diagnosis. Syndromes of gastroenteritis,

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gastroenterocolitis, colitis, intoxication syndrome. The degree of dehydration. Severity criteria. Differential diagnosis between infectious diseases associated with diarrhea. Examination of a patient with diarrhea at the prehospital stage if an infectious disease is suspected. Indications for hospitalization. Primary anti-epidemic measures in the focus of infection. Tactics of managing patients at the prehospital stage.

Topic 50. Tactics of a doctor for influenza and other acute respiratory viral infections. Emergency conditions and emergency care for infectious patients at the prehospital stage (ITSh, hypovolemic shock, acute respiratory failure, acute renal and hepatic failure, edema and swelling of the brain)

Influenza, parainfluenza, adenovirus infection, etc. ARVI, their early diagnosis. Syndrome of rhinitis, rhinopharyngitis, laryngitis, laryngotracheitis, tracheitis. Differential diagnosis between influenza and other acute respiratory viral infections. Indications for hospitalization: principles of home treatment. Therapeutic tactics at home. Complications. Primary anti-epidemic measures in the focus of infection.

Emergency conditions and emergency care for infectious patients at the prehospital stage (ITSH, hypovolemic shock, acute respiratory failure, acute renal and hepatic failure, edema and swelling of the brain).

Infectious diseases complicated by the development of infectious toxic shock. Pathophysiological mechanisms of the occurrence of infectious toxic shock. Clinical classification. Clinical and pathogenetic characteristics of the degrees of infectious-toxic shock. Clinical diagnostic criteria. Urgent therapeutic measures.

Hypovolemic shock in acute intestinal infections. Pathophysiological mechanisms of hypovolemic shock. Degree of dehydration, clinical diagnostic criteria. Infusion therapy. Anaphylactic shock during etiotropic and pathogenetic therapy. Clinical diagnostic criteria. Urgent therapeutic measures.

Swelling of the brain. Pathophysiological mechanisms of development. Edema-swelling of the brain as the appearance of hypertoxicosis with influenza, intestinal infections, and as a complication of meningococcal infection. Clinical diagnostic criteria. Emergency therapeutic measuresacceptance.

Pulmonary edema in infectious diseases of the respiratory tract and their complications. Pathophysiological mechanisms of development. Phases of pulmonary edema. Clinical diagnostic criteria. Urgent therapeutic measures.

Acute renal failure of pre-renal genesis (meningococcal infection, acute intestinal infections) and renal genesis (HLLS, leptospirosis, malaria). Pathophysiological mechanisms of development. Clinical and laboratory diagnostic criteria. Urgent therapeutic measures.

### Topic 51. Early and differential diagnosis of neuroinfections...

Primary and secondary meningitis. Meningism. Encephalitis. Meningococcal infection, viral serous meningitis, secondary serous meningitis in leptospirosis, yersineosis, typhoid fever, HFRS, viral encephalomyelitis, primary and secondary purulent meningitis, tuberculous meningitis. Their early diagnosis. Clinical-epidemiological and clinical-liquorological diagnostics and differential diagnostics. Encephalitic syndrome. Clinical criteria for meningoencephalitis. Medical care (including emergency) at the prehospital stage. Primary anti-epidemic measures in the focus of infection.

A group of diseases caused by virions (congenital rubella, progressive rubella panencephalitis, subacute measles sclerosing panencephalitis, chronic infectious mononucleosis, cytomegalovirus brain damage, subacute adenoviral encephalitis, HIV infection, T-cell lymphoma, lymphocytic epithelial choriomenivitis) Etipathogenesis of CNS

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virion lesions. Clinical and laboratory diagnostics, principles of treatment. The concept of prions. A group of prion diseases (Kuru, Creutzfeldt-Jakob disease, amyotrophic leukospongiosis, Geretman-Strusler syndrome). Epidemiology and pathogenesis of prion infections, clinical picture. Possibilities of laboratory diagnostics. Clinical and epidemiological prognosis. MVI of a person with a suspected viral nature (multiple sclerosis, amyotrophic lateral sclerosis, schizophrenia, Parkinson's disease, atherosclerosis). Etiopathogenesis. Experimental treatment regimens.

Tuberculous meningitis and meningoencephalitis. Differential diagnosis of meningitis with subarachnoid hemorrhage, stroke. Management of patients at the prehospital stage.

## Topic 52. Early and differential diagnosis of diseases occurring with hemorrhagic syndrome in the clinic of infectious diseases

Meningococcal infection, hemorrhagic fevers, leptospirosis, typhus, sepsis, viral hepatitis. Fulminant course of acute viral hepatitis. Hemorrhagic syndrome in chronic liver failure. Management of patients at the prehospital stage.

## 6. TOPICS OF PRACTICAL CLASSES AND SEMINARS (FOR DISCUSSING AND <u>SELF-PREPARING OF STUDENTS)</u>

### SECTION I. GENERAL PART. INTRODUCTION TO SPECIALTY

**Topic 1.**The device and mode of operation of the infectious hospital. Hospitalization of infectious patients

The form of the exercise is a practical lesson.

Questions to the topic.

- 1. The concept of the general structure of the infectious disease service. The role of infectious disease rooms in polyclinics in providing care to outpatients.
- 2. Hospitalization is mandatory for clinical and epidemiological indications. Registration of an infectious patient. The concept of the rules of isolation and hospitalization.
- 3. The device and mode of operation of the infectious hospital. Boxes and observation rooms. Initial examination of the patient. Distribution of patients by departments. Diagnostic and specialized departments, their mode of operation. Box offices.
- 4. Centralized laboratory. Features of the organization of work with suspicion of a particularly dangerous infection.
- 5. Terms of isolation of infectious patients. Conditions of discharge. Clinical examination.

### SECTION II. SPECIAL PART.

### **Topic 2. Dysentery. Yersineosis.**

The form of the exercise is a practical lesson.

- 1. Characteristics of the causative agents of dysentery.
- 2. Epidemiological features of dysentery caused by various pathogens.
- 3. The main elements of the pathogenesis of acute dysentery.
- 4. Morphological signs characteristic of dysentery.
- 5. Characteristics of the gastroenteric and enterocolitic syndromes characteristic of shigellosis.
- 6. Clinical signs of dysentery, depending on the severity of the disease.
- 7. Algorithm for early diagnosis of shigellosis. Doctor's tactics for suspected acute dysentery. Rules for sampling material for dis.group and salmonellosis.
- 8. Differential diagnosis for dysentery. Diagnostic search for acute intestinal infections.

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- 9. The principles of therapy for various forms of acute dysentery. Outpatient treatment of patients with dysentery. Rules for the discharge of patients from the hospital. Clinical examination of convalescents.
- 10. Anti-epidemic measures in the focus of dysentery.
- 11. Characteristics of the causative agent of yersineosis.
- 12. Epidemiological features of yersineosis.
- 13. Features of the clinical picture of yersineosis. Characteristics of the main forms of infection. Differential diagnosis of yersineosis.
- 14. Principles of diagnosis of yersineosis.
- 15. Treatment of yersineosis.

### Topic 3. Foodborne toxicoinfections. Salmonellosis. Cholera.

The form of the exercise is a practical lesson.

Questions to the topic.

- 1. Characteristics of the causative agents of PTI, salmonellosis, cholera.
- 2. Epidemiological features of IPT, salmonellosis, El Tor cholera.
- 3. The main elements of the pathogenesis of salmonellosis, cholera. Toxin formation. Dehydration Syndrome. Degree of dehydration.
- 4. Salmonellosis classification.
- 5. Gastrointestinal salmonellosis, clinical characteristics.
- 6. Clinic of generalized salmonellosis.
- 7. Complications of salmonellosis. Clinic of infectious toxic shock.
- 8. Features of the clinical picture of PTI.
- 9. Clinical characteristics of cholera depending on the degree of dehydration. Cholera classification. Biochemical changes in the blood in cholera.
- 10. Laboratory diagnostics of PTI, salmonellosis, cholera, express diagnostics of cholera.
- 11. Doctor's tactics for suspected cholera, PTI, salmonellosis.
- 12. Differential diagnosis of PTI, salmonellosis, cholera.
- 13. Treatment of salmonellosis, PTI. The principles of ITS therapy. Intensive therapy of ITSH. Conditions for outpatient treatment of PTI.
- 14. Pathogenetic and etiotropic therapy of cholera. Rehydration principles.
- 15. Anti-epidemic measures in the focus of salmonellosis, PTI, cholera.
- 16. Prevention of salmonellosis, PTI, cholera.

### **Topic 4. Viral gastroenteritis. Enterovirus infections.**

The form of the exercise is a practical lesson.

- 1. The concept of viral gastroenteritis.
- 2. Viruses that cause acute gastroenteritis syndrome.
- 3. Epidemiology of viral diarrhea. Role in the development of OCI outbreaks. The incidence of viral diarrhea.
- 4. Pathogenesis and clinical picture.
- 5. Diagnostics and differential diagnostics.
- 6. Etiotropic and pathogenetic treatment
- 7. Enterovirus infections (poliomyelitis and non-polio)
- 8. Etiopathogenesis of enterovirus infections.
- 9. Clinical classification and clinical forms of enterovirus infections.
- 10.Laboratory diagnostics of enterovirus infections.
- 11. Etiotropic, specific and pathogenetic therapy of enteroviral infections.

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## Topic 5. Typhoid-paratyphoid diseases: typhoid fever, paratyphoid A and B. Pseudotuberculosis.

The form of the exercise is a practical lesson.

Questions to the topic.

- 1. Characteristics of causative agents of typhoid fever, paratyphoid fever A and B.
- 2. Epidemiological features of modern typhoid fever, paratyphoid fever A and B.
- 3. The main links in the pathogenesis of typhoid-paratyphoid diseases. Morphological features typical for SMI.
- 4. Clinical signs of the initial period of typhoid fever. Algorithm for early diagnosis of typhoid fever.
- 5. Clinical signs of the height of the disease. The clinical course of modern typhoid fever. Complications of typhoid fever. Classification of typhoid fever.
- 6. The main clinical differences between paratyphoid fever A and B from typhoid fever.
- 7. The main methods of laboratory diagnostics of typhoid-paratyphoid diseases. Rules for taking blood for bacteriological examination.
- 8. Dif. diagnostics of typhoid-paratyphoid diseases.
- 9. Principles of therapy for typhoid-paratyphoid diseases. Treatment of complications. Rules for the discharge of patients from the hospital. Clinical examination of convalescents.
- 10. Anti-epidemic measures in the focus of the disease.
- 11. Characteristics of the causative agent of pseudotuberculosis. Epidemiological features of pseudotuberculosis. The main links of pathogenesis.
- 12. Clinic of pseudotuberculosis. The main clinical forms of pseudotuberculosis.
- 13. Similarities and differences in the clinical picture of intestinal yersineosis and pseudotuberculosis.
- 14. Principles of diagnosis of pseudotuberculosis.
- 15. Treatment of pseudotuberculosis.

### Topic 6. Botulism. Helminthiasis.

The form of the exercise is a practical lesson.

- 1. Characteristics of causative agents of botulism. Epidemiological features of the disease.
- 2. Pathogenesis of botulism. Toxic-infectious nature of the lesions of the organs and the system in botulism.
- 3. The clinical picture of the initial period of botulism.
- 4. Characteristics of the height of the disease, taking into account the leading syndromes of the disease.
- 5. Clinical and laboratory diagnostics of botulism.
- 6. The main directions of botulism therapy. Specific therapy for botulism, its complications. Disease prevention.
- 7. The main features of the biology of helminths and the epidemiology of helminthiases.
- 8. General patterns of the pathological process in helminthiasis. Factors of influence of parasitic worms on the human body (mechanical, sensitizing, toxic, ways of feeding helminths, etc.).
- 9. Stages (phases) of helminth development: acute, latent, chronic. Dependence of the clinic of the chronic stage of helminthiasis on the type of pathogen, its localization in the host's body, the intensity of invasion, and the reactivity of the macroorganism.
- 10. Questions of private helminthology. The clinical picture of opisthorchiasis, ascoridosis,

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diphyllobothriasis, echinococcosis.

11. Principles of helminthiasis treatment. Features of therapy in the acute and subacute stages of helminthiasis.

### Topic 7. Viral hepatitis A, E

The form of the exercise is a practical lesson.

Questions to the topic.

- 1. Etiology and epidemiology of viral hepatitis A, E. Hepatitis with fecal-oral transmission mechanism.
- 2. Pathogenesis of viral hepatitis depending on the pathogen. The main clinical and laboratory syndromes: cholestatic, cytolytic, mesenchemal-inflammatory.
- 3. Clinic of acute viral hepatitis A, E. Variants of the course of acute viral hepatitis.
- 4. Classification of acute viral hepatitis.
- 5. Laboratory diagnostics of viral hepatitis. Functional liver function tests.
- 6. Markers of viral hepatitis A, E.
- 7. Treatment of acute viral hepatitis A, E. Basic and pathogenetic therapy.

### Topic 8. Viral hepatitis B, C, D

The form of the exercise is a practical lesson.

Questions to the topic.

- 1. Etiology and epidemiology of viral hepatitis B, C, D
- 2. Epidemiology of parenteral viral hepatitis
- 3. Pathogenesis. The role of the immune response in hepatitis B, C, D
- 4. The clinical picture depending on the etiology
- 5. Complications of acute viral hepatitis. The pathogenesis of the development of acute liver failure. Clinic and intensive care of hepatic coma.
- 6. Diagnostic search for viral hepatitis.
- 7. Outcomes of viral hepatitis. Chronic hepatitis. Cirrhosis of the liver. Hepatocellular carcinoma.
- 8. Chronic viral hepatitis B, D. Phases of the infectious process.
- 9. Hepatitis C. Clinical and epidemiological characteristics. Long-term course of the infectious process
- 10. Classification of chronic hepatitis (Los Angeles, 1994). Activity and stage of chronic hepatitis.
- 11. Liver cirrhosis and hepatocellular carcinoma in the outcome of chronic viral hepatitis.
- 12. Treatment of chronic viral hepatitis. Pathogenetic and antiviral therapy. The main antiviral drugs used to treat chronic viral hepatitis. Indications for antiviral therapy. Basic treatment regimens.
- 13. Prevention of viral hepatitis. Specific prophylaxis. Activities in the outbreak of viral hepatitis.

### Topic 9. Influenza and other acute respiratory diseases (ARI). COVCID-19.

The form of the exercise is a practical lesson.

- 1. Characteristics of influenza viruses and viruses causative agents of ARVI: parainfluenza, adenoviruses, RS viruses. ARI of non-viral etiology (bacterial, chlamydial, mycoplasma).
- 2. Influenza pathogenesis.
- 3. Features of the pathogenesis of parainfluenza, adenovirus, RS infection.

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- 4. Clinical characteristics of influenza, depending on the severity of the disease. Influenza classification. Complications of influenza: pulmonary edema, cerebral edema, TSS, laryngeal stenosis.
- 5. Clinic of adenovirus infection, taking into account its forms.
- 6. Parainfluenza clinic. Complications of parainfluenza.
- 7. Clinic for MS Infection
- 8. Clinical and laboratory diagnostics of influenza and other acute respiratory infections.
- 9. Treatment of uncomplicated forms of influenza and other acute respiratory infections. Indications for hospitalization of patients with influenza and acute respiratory infections. Symptomatic therapy for acute respiratory infections.
- 10. Intensive care of complications of influenza.
- 11. Pandemic COVID-19. Etiology, epidemiology, pathogenesis of the new coronavirus infection.
- 12. Clinical picture and clinical forms of a new coronavirus infection. Flow options.
- 13. Lung lesions in a new coronavirus infection.
- 14. The defeat of other organs with a new coronavirus infection.
- 15. Complications of COVID-19.
- 16. Diagnostics of COVID-19.
- 17. Treatment of uncomplicated and complicated forms of COVID-19.

### **Topic 10. Meningococcal infection. Tetanus.**

The form of the exercise is a practical lesson.

- 1. Characteristics of the pathogen. Epidemiology of meningococcal infection. Mechanisms and ways of transmission of infection.
- 2. Pathogenesis of localized and generalized forms of meningococcal infection. Pathogenesis of the main complications of meningococcal infection (edema-swelling of the brain, cerebral hypertension, ITSh).
- 3. Clinical signs of meningococcal nasopharyngitis.
- 4. The clinical picture of purulent meningitis, meningoencephalitis.
- 5. The clinical picture of simple and fulminant meningococcemia. Complications of generalized forms of meningococcal infection.
- 6. Differential diagnosis of meningococcal meningitis (meningismus, serous meningitis, secondary purulent meningitis, tuberculous meningitis, subarachnoid hemorrhage).
- 7. Diagnosis of meningococcal infection.
- 8. Principles of treatment of localized and generalized forms of meningococcal infection. Intensive care of complications.
- 9. Anti-epidemic measures in the focus of meningococcal infection.
- 10. Tetanus. Etiology. Properties of the pathogen. Epidemiology. Sources of infection. Infection mechanisms.
- 11. Pathogenesis, pathological anatomy.
- 12. Clinic. Classification. Initial symptoms. Clinic of the height of the disease. Criteria and forms of severity. Local form of tetanus.
- 13. Complications. Forecast. Diagnostics. The leading diagnostic value of the clinical symptom complex. Differential diagnosis.
- 14. Treatment. Providing emergency medical care at the prehospital stage. Prescription of anti-tetanus serum, anti-tetanus globulin, toxoid. Pathogenetic therapy.
- **15.** Prevention. Methods of general, surgical and specific prevention. Use of tetanus toxoid and tetanus toxoid. Planned and emergency prevention.

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### Topic 11. Diphtheria. Angina. Infectious mononucleosis

The form of the exercise is a practical lesson.

Questions to the topic.

- 1. Etiology and epidemiology of diphtheria. Diphtheria bacillus options.
- 2. Pathogenesis, pathological anatomy. Local and general resorptive action of exotoxin. Development of diphtheria and croupous inflammation.
- 3. Diphtheria clinic. Incubation period. Classification of clinical forms of diphtheria.
- 4. Localized oropharyngeal diphtheria. Widespread oropharyngeal diphtheria. Toxic diphtheria of the oropharynx.
- 5. The nature of the change in the throat with angina. Clinical features of Simanovsky-Vincent's angina. Differential diagnosis of lesions of the pharynx with diphtheria.
- 6. Characteristics of subtoxic diphtheria, toxic diphtheria I-III degree, hypertoxic diphtheria, hemorrhagic diphtheria.
- 7. Diphtheria of the larynx (croup), stages of croup. Characteristics of common croup.
- 8. Rare localizations of diphtheria. The combined forms of diphtheria in localization.
- 9. Complications of diphtheria in adults. The frequency and timing of complications. Myocarditis. Damage to the nervous system. Diphtheria polyneuropathy. Kidney damage.
- 10. Treatment. Specific therapy with antitoxic antidiphtheria serum. Doctor's tactics in case of suspected localized diphtheria, toxic diphtheria and diphtheria croup.
- 11. Antibiotic therapy for subtoxic and toxic forms. Choice of antibiotics. Pathogenetic therapy.
- 12. Activities in the diphtheria focus.
- 13. Prevention of diphtheria.
- 14. Infectious mononucleosis. Etiology and epidemiology, pathogenesis, mechanisms of EBV persistence.
- 15. Clinical forms of infectious mononucleosis.
- 16. Laboratory diagnostics
- 17. Treatment of infectious mononucleosis

### Topic 12. Hemorrhagic fevers. Hemorrhagic fever with renal syndrome. Leptospirosis.

The form of the exercise is a practical lesson.

- 1. General clinical and epidemiological classification of hemorrhagic fevers. Spread. Causative agents of hemorrhagic fevers.
- 2. Brief description of tropical hemorrhagic fevers (African hemorrhagic fevers, Dengue fever, Ebola, Lassa). Concept of hemorrhagic fevers of Southeast Asia. The possibility of delivery. Preventive measures.
- 3. Characteristics of the causative agents of the Hunt virus infection. Epidemiological features of HFRS.
- 4. Key points of the pathogenesis of HFRS in different phases of the disease. Pathomorphological changes in the kidneys and HFRS.
- 5. Clinical characteristics of a typical variant of HFRS, depending on the severity.
- 6. Variants of the course of the disease. Complications of HFRS. Acute renal failure.
- 7. Differential diagnosis in the initial and oligoanuric periods of the disease.
- 8. Laboratory indicators in different phases of the disease.
- 9. Treatment of patients with HFRS. Principles and methods of intensive care for acute renal failure in HFRS. Indications for hemodialysis.
- 10. Clinical examination of convalescents. Residual syndrome.

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- 11. Prevention of HFRS.
- 12. Leptospirosis. Etiology. Characteristics of pathogens.
- 13. Epidemiology. Reservoirs and sources of infection in nature. Types of natural foci of leptospirosis. Ways of transmission of infection.
- 14. Pathogenesis, pathological anatomy of leptospirosis. The mechanism of development of intoxication and hemorrhagic syndromes. Damage to the liver, kidneys, cardiovascular and nervous systems and other organs in various forms of leptospirosis.
- 15. Clinic. Clinical classification of leptospirosis. Icteric and anicteric variants of the disease. Hemorrhagic syndrome. Acute renal failure.
- 16. Methods of bacteriological and serological diagnostics. Differential diagnosis.
- **17.** Treatment. Antibiotic therapy. Specific therapy with antileptospirotic gamma globulin.

### Topic 13. Malaria. Sepsis.

The form of the exercise is a practical lesson.

Questions to the topic.

- **1.** Characteristics of the causative agents of malaria. Drug resistance. Epidemiology of malaria. Distribution areas of the main forms.
- 2. Fundamentals of the pathogenesis of malaria.
- **3.** Three-day, four-day, tropical and malaria-oval: features of the course. The main clinical syndromes. Clinical forms of malaria. Relapses of malaria, their causes.
- 4. Complications of malaria, their clinical signs.
- 5. Laboratory diagnostic methods. The tactics of preparing a smear and a thick drop of blood.
- 6. Principles of treatment for different forms of malaria.
- 7. Sepsis. Definition. Etiology.
- **8.** Pathogenesis. The generality of the mechanisms of development of the disease with its various etiologies. The defining value of suppression of immunogenesis for the formation of an acyclic progressive course of the disease.
- **9.** The clinical course of acute sepsis, acute (fulminant) sepsis. Clinic for subacute and recurrent sepsis. The clinical course of chroniosepsis.
- **10.** The value of clinical data in the recognition of various forms of sepsis. Identification of the pathogen in the blood, in the primary septic focus of infection, in metastatic foci.
- **11.** Differential diagnosis of sepsis with infectious diseases accompanied by high and prolonged fever.
- **12.** Complex etiotropic and pathogenetic therapy of sepsis. Remediation of the primary septic focus of infection. Principles and tactics of antibiotic therapy.
- **13.** Prevention. Strict adherence to asepsis during various surgical interventions.

### **Topic 14. Herpetic infection. CMVI. Herpes virus infection of 6, 7, 8 types. Erysipelas.**

The form of the exercise is a practical lesson.

- Questions to the topic.
- 1. Herpes infection, herpes pathogens, their main properties. Epidemiology. Sources of infection, transmission mechanisms.
- 2. Pathogenesis, pathological anatomy. Congenital herpes infection, transplacental transmission of the virus.
- 3. Pathogenesis, pathological anatomy.
- 4. Clinical forms of infection. Herpes simplex.
- 5. Shingles. Chicken pox.
- 6. Cytomegalovirus infection. Congenital cytomegalovirus infection.

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- 7. The value of clinical and laboratory data. Isolation of the virus. Serological diagnostics (RSK, neutralization reaction). Differential diagnosis.
- 8. Herpes viruses type 6, 7, 8. Chronic fatigue syndrome.
- 9. Treatment. Antiherpetic chemotherapy drugs in the treatment of various forms of lesions.
- 10. Erysipelas. The main properties of the pathogen. L-forms of streptococcus. Epidemiology. Sources of infection.
- 11. Pathogenesis. Exogenous and endogenous nature of infection.
- 12. Clinic. Evolution of the clinical course of erysipelas. Clinical classification. Erythematous, erythematous-bullous, erythematous-hemorrhagic, bullous-hemorrhagic forms. Severity criteria.
- 13. Treatment. Indications for hospitalization. Organization and program of home treatment. Mode. Etiotropic treatment.

### Topic 15. Especially dangerous infections. Plague, tularemia, anthrax, brucellosis.

The form of the exercise is a practical lesson.

- 1. The concept of quarantine, conventional diseases.
- 2. Plague. Etiology. The most important properties of the pathogen. Epidemiology. Plague microbe reservoirs in nature.
- 3. Pathogenesis, pathological anatomy. Microbial introduction, lymphogenous and hematogenous spread.
- 4. Clinic. Clinical classification. The initial period of the disease, its main manifestations are the syndrome of intoxication, cardiovascular disorders. Clinic of cutaneous, bubonic, septic, pulmonary forms of plague. Complications, outcomes. Forecast.
- 5. Diagnostics. Bacterioscopic, bacteriological, serological, biological diagnostic methods. Rules for taking pathological material for laboratory research and transporting it. Express diagnostics of the plague.
- 6. Plague treatment. The choice of antibacterial agents.
- 7. Tularemia. Characteristics of the pathogen. Epidemiology.
- 8. Pathogenesis, pathological anatomy. The defining value of the entrance gate for the clinical course (form) of the disease.
- 9. Clinical classification of tularemia. The clinical course of various forms of the disease. Complications. Outcomes.
- 10. Diagnostics. Serological and allergological method for the diagnosis of tularemia. Dif. diagnostics. Tularemia treatment.
- 11. Anthrax. Characteristics of the pathogen. Epidemiology.
- 12. Pathogenesis of the main clinical manifestations of the disease in its various forms. Internal organ changes.
- 13. Clinical classification of forms of anthrax. Clinical characteristics of the cutaneous form of anthrax. Stages of development of the anthrax carbuncle. Clinic for septic and pulmonary forms. Complications. Outcomes.
- 14. Laboratory diagnostics bacterioscopic, bacteriological, biological serological. Intradermal test. Express methods (ELISA, etc.).
- 15. Treatment. Etiotropic therapy. Use of a specific anti-anthrax gamma globulin.
- 16. Etiology. The main species of brucella and their biological properties. L-shaped brucella.
- 17. Epidemiology. Sources of infection. Ways, factors of infection spread.

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- 18. Pathogenesis, pathological anatomy. Phases of brucellosis development. Primary and secondary (metastatic) foci of infection. Infectious and allergic nature of the lesions. The significance of L-forms of brucella in the pathogenesis of chronic brucellosis.
- 19. Clinical classification of brucellosis.
- 20. Acute brucellosis. Initial manifestations. Types of temperature curves. Changes from various systems and organs. Severity criteria.
- 21. Clinical presentation of subacute (acute recurrent) brucellosis.
- 22. Chronic brucellosis. Its forms. Lesions of the musculoskeletal system, nervous, cardiovascular and urogenital systems.
- 23. Diagnostics. Bacteriological diagnostics, isolation of L-forms of brucella. Serological diagnostics (reaction of Wright, Heddleson, Coombs, RPHA, RSK, immunofluorescence). Allergic tests (intradermal allergic test by Burne, leukocyte lysis reaction). Features of laboratory diagnosis of chronic brucellosis.
- **24.** Treatment. Etiotropic therapy of acute brucellosis. Features of the treatment of subacute brucellosis. Indications for the use of immunomodulators, biostimulating therapy.

### **Topic 16. HIV infection.**

The form of the exercise is a practical lesson.

Questions to the topic.

- 1. Epidemiological situation on HIV infection in the world, Russia and the Ulyanovsk region.
- 2. Ways of HIV transmission, Risk groups. Medical workers as a risk group, the degree of risk of HIV infection for medical workers.
- 3. HIV Clinic. Clinical classification of HIV (Russia, CDC). The degree of immunodeficiency.
- 4. The clinical picture of the stage of acute HIV infection.
- 5. The clinical picture of the latent stage of HIV infection.
- 6. The clinical picture of the stage of secondary diseases. Opportunistic infections depending on the degree of immunodeficiency.
- 7. Diagnosis of HIV. Laboratory diagnostic methods. Possible mistakes. Assessment of the immune status. Laboratory diagnosis of opportunistic infections.
- 8. Differential diagnosis of HIV infection at different stages of the disease.
- 9. The principles of treating patients at different stages of the disease. Indications for HAART. Basic therapy regimens.
- 10. Dispensary observation. Deontological aspects of working with HIV infected.
- 11. Prevention of HIV. Post-exposure prophylaxis. Prevention of vertical transmission of HIV.

# SECTION III. EARLY AND DIFFERENTIAL DIAGNOSTICS OF INFECTIOUS DISEASES.

### URGENT CONDITIONS AND EMERGENCY ASSISTANCE INFECTIOUS PATIENTS

## Topic 17. Early and differential diagnosis of acute febrile diseases (typhoid fever, typhus, HFRS, brucellosis, malaria, sepsis.). Diagnostic search for fever of unknown origin.

The form of carrying out is a practical lesson.

- Questions to the topic.
- 1. Definition of the concepts of fever and hyperthermia.
- 2. Types of temperature curves and their clinical significance.

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- 3. Early and differential diagnosis of diseases with high fever.
- 4. Acute infectious diseases occurring with high and prolonged fever: typhoid and paratyphoid fever, acute brucellosis, typhus and Brill-Zinsser disease, meningococcal infection, infectious mononucleosis, yersineosis, Q fever, HIV infection, malaria, sepsis, candidiasis. Their early clinical manifestation.
- 5. Clinical, epidemiological and laboratory diagnostics.
- 6. Differential diagnosis between infectious and non-infectious diseases with high and prolonged fever.
- 7. Definition of the concept of fever of unknown origin. Diagnostic search for LNG.

## Topic 18. Early and differential diagnosis of diseases occurring with exanthema syndrome in the clinic of infectious diseases.

The form of carrying out is a practical lesson.

- Questions to the topic.
- 1. Characterization of the elements of the rash, exanthema and enanthema (spot, roseola, erythema, hemorrhages, papule, tubercle, node, blister, vesicle, pustule).
- 2. Early and differential diagnosis of diseases occurring with exanthema: measles, scarlet fever, rubella, typhus, Brill-Zinsser disease, meningococcal infection, yersineosis, hemorrhagic fevers, erysipelas, typhoid fever and paratyphoid fever, HIV, herpes infection, Lyme disease). Their early clinical diagnosis.
- 3. Differential diagnosis of infectious and non-infectious diseases occurring with exanthema and enanthema.
- 4. Examination of patients with exanthema at the prehospital stage. Indications for hospitalization in an infectious diseases hospital.
- 5. Primary anti-epidemic measures in the outbreak.

# Topic 19. Early and differential diagnosis of diseases occurring with lesions of the pharynx and lymphadenopathies. Management of patients at the prehospital stage.

The form of carrying out is a practical lesson.

Questions to the topic.

- 1. Infectious diseases occurring with the defeat of the pharynx: angina, diphtheria, infectious mononucleosis, scarlet fever, herpangina, tularemia, candidiasis, acute respiratory diseases, HIV, HFRS, Dugue's angina.
- 2. Infectious diseases that occur with lymphadenopathies: infectious mononucleosis, tularemia, plague, brucellosis, HIV infection, herpes infection, toxoplasmosis.
- 3. Differential diagnosis between the defeat of the tonsils in infectious pathology and oncohematological diseases.
- 4. Symeotics of throat lesions (hyperemia, edema, plaque, their localization, prevalence, color, plaque removal, pain when swallowing, regional lymph nodes).
- 5. The severity of the intoxication syndrome. Clinical-epidemiological and bacteriological diagnostics.

## Topic 20. Early and differential diagnosis of diseases associated with jaundice syndrome. Cholestasis.

The form of carrying out is a practical lesson.

- 1. Early differential diagnosis of diseases associated with jaundice syndrome. Clinicopathophysiological characteristics of jaundice: suprahepatic, hepatic, subhepatic.
- 2. Infectious diseases associated with jaundice syndrome: viral hepatitis, leptospirosis,

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yersineosis, infectious mononucleosis, parasitic liver damage, malaria.

- 3. Clinical and laboratory syndromes: cytolysis, cholestasis, mesenchymal inflammation.
- 4. DDifferential diagnosis of viral hepatitis with jaundice in other infectious and non-infectious diseases.
- 5. Examination of a patient with jaundice at the prehospital stage if an infectious disease is suspected. Indications for hospitalization.Primary anti-epidemic measures in the focus of infection.

### Topic 21. Early and differential diagnosis of diseases with diarrheal syndrome.

The form of carrying out is a practical lesson.

1. Classification of diarrhea, types of diarrhea.

2. Syndromes of gastroenteritis, gastroenterocolitis, colitis, intoxication syndrome. The degree of dehydration. Severity criteria.

3. Acute infectious diseases occurring with diarrhea syndrome: dysentery, botulism, salmonellosis, foodborne diseases, cholera, viral diarrhea, parasitic intestinal lesions. Their early clinical diagnosis.

4. Differential diagnosis between infectious diseases occurring with diarrhea.

5. Examination of a patient with diarrhea at the prehospital stage if an infectious disease is suspected. Indications for hospitalization. Primary anti-epidemic measures in the focus of infection.

## Topic 22.Differential diagnosis of neuroinfections. Primary and secondary meningitis. Meningism. Encephalitis.

The form of carrying out is a practical lesson.

- 1. Early and differential diagnosis of neuroinfections.
- 2. Infectious diseases occurring with meningeal syndrome: meningococcal infection, serous meningitis, secondary serous meningitis in leptospirosis, yersineosis, typhoid fever, viral encephalomyelitis, primary and secondary purulent meningitis, tuberculous meningitis.
- 3. Clinical-epidemiological and clinical-liquorological diagnostics and differential diagnostics.
- 4. Encephalitic syndrome
- 5. Clinical criteria for meningoencephalitis
- 6. Medical care (including emergency) at the prehospital stage.
- 7. Primary anti-epidemic measures in the outbreak.

### Topic 23. Tactics of a doctor for influenza and other acute respiratory viral infections Emergencies in the clinic of infectious diseases and emergency care for infectious patients.

The form of carrying out is a practical lesson.

- 1. Syndrome of rhinitis, rhinopharyngitis, laryngitis, laryngotracheitis, tracheitis.
- 2. Differential diagnosis between influenza and other acute respiratory viral infections.
- 3. Methods for express diagnostics of influenza and ARVI.
- 4. Indications for hospitalization, principles of home treatment.
- 5. Complications and emergencies that develop in acute respiratory diseases. Acute stenosing laryngitis.
- 6. Differential diagnosis of diseases occurring with pneumonia syndrome: psittacosis, coxiellosis, legionellosis, mycoplasma infection, plague, pneumocystis pneumonia, tuberculosis.

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- 7. Methods of examination of patients with pneumonia syndrome. Indications for hospitalization.
- 8. Infectious diseases complicated by the development of infectious toxic shock. Clinical classification. Clinical and pathogenetic characteristics of the degrees of infectious-toxic shock. Clinical diagnostic criteria. Emergency therapy.
- 9. Hypovolemic shock in acute intestinal infections. Pathophysiological mechanisms of shock. The degree of dehydration. Clinical diagnostic criteria. Emergency therapy.
- 10. Swelling of the brain. Pathophysiological mechanisms of development. Edema-swelling of the brain as a manifestation of hypertoxicosis with influenza, intestinal infections, and as a complication of meningococcal infection. Clinical diagnostic criteria. Emergency therapy.
- 11. Pulmonary edema in infectious diseases of the respiratory tract and their complications. Pathophysiological mechanisms of development. Phases of pulmonary edema. Clinical diagnostic criteria. Emergency therapy.
- 12. Acute renal failure of pre-renal genesis (meningococcal infection, acute intestinal infections) and renal genesis (HFRS, leptospirosis, malaria). Pathophysiological mechanisms of development. Clinical and laboratory diagnostic criteria. Emergency therapy.
- 13. Acute liver failure. Pathophysiological mechanisms of development. Clinical and laboratory diagnostic criteria. Emergency therapy.

### 7. LABORATORY CLASSES

This type of work is not provided for in the curriculum.

### 8. SUBJECTS OF COURSE PAPERS, TESTS, ESSAYS

Writing an abstract on one of the topics:

- 1. HIV infection and pregnancy.
- 2. Hemorrhagic fevers: pathogenetic mechanisms leading to the development of hemorrhagic syndrome.
- 3. Vaccination: modern realities.
- 4. Emergencies in the clinic of infectious diseases. Diagnostics. Emergency therapy.
- 5. The use of immunomodulators in outpatient practice.
- 6. Cryoglobulinemia in the pathogenesis of CHC.
- 7. Infectious process in persistent viral infections.
- 8. Slow viral infections.
- 9. Comagenic forms of viral hepatitis. Pathogenesis and clinical picture of hepatic failure.
- 10. Extrahepatic manifestations in viral hepatitis B and C.
- 11. Modern approaches to the treatment of chronic hepatitis B and C.
- 12. Antiviral therapy. Classification of modern antiviral drugs, their characteristics. Principles of use.
- 13. Clinical, epidemiological and laboratory criteria for the diagnosis of HIV / AIDS infection. Diagnosis confirmation algorithm.
- 14. Emergencies with influenza and ARVI.
- 15. CHC and comorbidity: features of the course and possibilities of AVT.
- 16. The combination of CVH, tuberculosis and HIV infection from theory to practice.
- 17. Borreliosis: clinical and pathogenetic aspects.
- 18. Viral gastroenteritis in patients with recurrent infections.

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- 19. The global problem of acute diarrhea in adults and modern aspects of therapy.
- 20. New coronavirus infection COVID-19. Features of the epidemiological process. Prevention methods and their effectiveness.

Requirements for the design of the abstract.

Abstract of 15-20 typewritten pages in Word editor, font Times New Roman, size 14; paragraph - justified alignment, left and right indentation - 0, spacing before and after - 0, line spacing - one and a half. Margins on all sides - 2 cm.

The abstract should consist of a title page, content, the actual text of the abstract and a list of used literature. The text of the abstract should consist of an introduction, a main part and a conclusion. The list of references is indicated in alphabetical order according to GOST. To write an essay, a student must use at least 5 - 7 sources of additional literature over the past 5 years.

**Course work.** The student's coursework in the discipline "Infectious Diseases" is writing an academic case history. At the first lesson, the student supervises a patient with an infectious disease; during the cycle, the student draws up a medical history in accordance with the methodological recommendations of the "Infectious Patient's Medical History". The academic medical history is checked by the teacher. During the examination, the examiner asks additional questions on the subject of academic medical history.

Purpose: to develop the skills of keeping a case history of an infectious patient.

Tasks: 1. Detailed study of a separate infectious nosology.

2. Formulation of a clinical diagnosis, taking into account the use of clinical classifications of infectious diseases, indicating the nosology, clinical form, severity, complication of an infectious disease.

3. Formation of skills in working with medical literature, medical and prescription reference books.

## 9. QUESTIONS FOR EXAM ON DISCIPLINE "PROPEDEUTICS OF INTERNAL DISEASES"

1. Economic assessment of the damage caused by infectious diseases. The effectiveness of anti-epidemic and preventive measures

2. Organization of outpatient care for infectious patients. Indications for hospitalization of infectious patients.

3. The reaction of the body to the infection. Infectious process, its main forms. Infectious disease.

4. Criteria for the diagnosis of infectious diseases.

5. The main directions of therapy for infectious patients.

6. Typhoid fever. Etiology, epidemiology, pathogenesis, clinic, diagnostics, specific complications of typhoid fever, treatment.

7. Paratyphoid A and B. Etiology, epidemiology, clinic, complications, treatment, prevention.

8. Bacterial dysentery. Etiology, epidemiology, pathogenesis, clinic, treatment of various variants and forms of acute dysentery. Prevention.

9. Escherichiosis. Etiology, epidemiology, pathogenesis, clinic, treatment.

10. Campylobacteriosis. Etiology, epidemiology, pathogenesis, clinic, treatment. Features of the course in pregnant women.

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11. Amoebiasis. Etiology, epidemiology, pathogenesis, clinic, treatment.

12. Food poisoning. Clinical and epidemiological characteristics. Diagnosis, treatment, prevention.

13. Salmonellosis. Etiology, epidemiology, pathogenesis, clinic, treatment, prevention. Clinical examination of decreed groups of the population.

14. Complications of salmonellosis. Pathogenesis and clinical picture of hypovolemic and infectious-toxic shock.

15. Treatment of patients with salmonellosis and food poisoning. Principles of rehydration. Oral rehydration. Correction of hemodynamics.

16. Cholera. Etiology, epidemiology, pathogenesis, clinic, diagnostics, differential diagnostics, treatment, prevention.

17. Pathogenetic and etiotropic therapy of cholera. Water-salt solutions. Complications of rehydration therapy.

18. sepsi

19. Yersineosis. Etiology, epidemiology, pathogenesis, clinic, treatment. Similarities and differences between the clinics of pseudotuberculosis and intestinal yersineosis.

20. Botulism. Etiology, epidemiology, pathogenesis, clinic.

21. Specific, etiotropic and pathogenetic therapy of botulism. Complications of specific immunotherapy.

22. Viral hepatitis A and E. Etiology, pathogenesis. Clinical and epidemiological features. Treatment. Features of the course of hepatitis E in pregnant women

23. Viral hepatitis B. Etiology, pathogenesis. disease markers. Clinical and epidemiological features. Principles of therapy. Outcomes.

24. Viral hepatitis mixed (B+D). Clinical and epidemiological features of co and super infections, outcomes, treatment.

25. Viral hepatitis C. Etiology, pathogenesis. Clinical and epidemiological features. Outcomes. Treatment.

26. Complications of viral hepatitis. Pathogenesis of acute liver failure. Clinic and intensive care of hepatic coma.

27. Outcomes of viral hepatitis. Chronic viral hepatitis. Cirrhosis of the liver. primary hepatocarcinoma. Diagnostics. Patient management tactics.

28. Laboratory diagnosis of viral hepatitis. functional tests. Markers of viral hepatitis A, B, C, D, E

29. Chronic hepatitis B. Phases of the infectious process. Diagnosis algorithm. Treatment. Prevention.

30. Extrahepatic manifestations of chronic viral hepatitis

31. Influenza is seasonal and highly pathogenic. Etiology, epidemiology, pathogenesis, clinic, complications, diagnosis, treatment, prevention.

32. Doctor's tactics for influenza and SARS. Treatment of various forms of influenza. Flu prevention.

33. Parainfluenza. Etiology, epidemiology, pathogenesis, clinic, complications, treatment, prevention.

34. Complications of parainfluenza. Clinic and intensive care of stenosis of the larynx.

35. Adenovirus infection. Etiology. Features of epidemiology. clinical forms. Treatment.

36. Respiratory syncytial infection. Etiology, epidemiology. clinical forms. Treatment.

37. New coronavirus infection COVID-19. Etiology, epidemiology. clinical forms. Treatment.

38. Meningococcal infection. Etiology, epidemiology. clinical forms.

39. Complications of meningococcal meningitis. Intensive therapy. Lead tactics. Forecast.

40. Meningococcemia. Etiology, pathogenesis, clinic, complications, treatment, prognosis..

41. Differential diagnosis of meningococcal meningitis (meningism, serous meningitis, secondary purulent meningitis, subarachnoid hemorrhage, tuberculous meningitis).

42. Tick-borne borreliosis. Etiology, epidemiology, pathogenesis, clinic, treatment. Outcomes. Prevention.

43. Typhus and Bril's disease. Etiology, epidemiology, pathogenesis, clinic, treatment.

44. Hemorrhagic fevers. General characteristics. Pathogenesis, clinic, treatment. Distribution area. Ebola, Marburg, Dengue - the current state of the problem.

45. Hemorrhagic fever with renal syndrome. Etiology, epidemiology, pathogenesis, clinic, treatment, prevention.

46. Clinical variants of hemorrhagic fever with renal syndrome. Complications, treatment and outcomes.

47. Malaria. Etiology, epidemiology, pathogenesis. Clinic for 3 and 4 day malaria. Treatment. Prevention.

48. Features of tropical malaria. clinical forms. Treatment. Prevention.

49. Tick-borne infections. Characteristics, distribution area, diagnosis algorithm, treatment, prevention.

50. Rabies. Etiology, epidemiology, pathogenesis, clinic, treatment.

51. Measles. Etiology, epidemiology, pathogenesis, clinic, treatment. Features of the course in adults. Modern features of the course of measles. WHO strategy to eliminate infection.

52. Sepsis. Definition. Etiology, pathogenesis, clinic, principles of treatment.

53. Brucellosis. Etiology, epidemiology, pathogenesis, clinic, diagnosis, treatment, outcomes, prevention.

54. Tularemia. Etiology, epidemiology, pathogenesis, clinic, differential diagnosis, treatment.

55. Leptospirosis. Etiology, epidemiology, pathogenesis, clinic, treatment.

56. Anthrax. Etiology, epidemiology, pathogenesis, clinic, treatment.

57. Plague. Etiology, epidemiology, pathogenesis, clinic, treatment. Tactics of the doctor in case of suspicion of a particularly dangerous infection.

58. Diphtheria. Etiology, epidemiology, pathogenesis, clinic, treatment. Differential diagnosis with angina.

59. Tetanus. Etiology, epidemiology, pathogenesis, clinic, treatment.

60. Erysipelas. Etiology, pathogenesis, clinic, treatment, prevention.

61. HIV infection. Etiology, pathogenesis, nature of immune disorders.

62. Indications for HAART in patients with HIV infection. Characteristics of drugs. Assigned regimens of therapy.

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63. Epidemiology of HIV infection. Risk groups, categories of persons to be tested for HIV infection. Diagnosis of HIV infection.

64. Clinic of HIV infection. AIDS-associated complex. Spectrum of opportunistic infections in AIDS.

65. Toxoplasmosis. Etiology, epidemiology, clinic, diagnostics, treatment, prevention. Features of the course in HIV-infected patients.

66. Cerebral edema in infectious pathology. Clinic. Intensive therapy.

67. Infectious-toxic shock in infectious pathology. Clinic. Intensive therapy.

68. Pulmonary edema in infectious pathology. Clinic. Intensive therapy.

69. Acute renal failure in the clinic of infectious diseases. Treatment. Indications for hemodialysis.

70. Stenosis of the larynx in acute respiratory diseases. Clinic. Intensive therapy.

71. Herpetic infection. Simple herpes. Herpeszoster. Etiology, epidemiology, pathogenesis, clinical forms, treatment, prevention.

72. Herpetic infection. Epstein-Barr virus. Etiology, epidemiology, pathogenesis, clinical forms, treatment.

73. Infections caused by human herpes virus 6, 7.8 types.

74. CMV infection. Etiology, epidemiology, pathogenesis, clinical forms, treatment.

75. Opisthorchiasis. Biology of the helminth. Epidemiology. Clinic of acute and chronic opisthorchiasis. Treatment tactics. Prevention.

76. Giardiasis. Etiology, epidemiology, pathogenesis, clinic, diagnostics, treatment, prevention.

77. Echinococcosis. Etiology, epidemiology, clinic, diagnostic algorithm, complications, treatment, prevention.

78. Cirrhosis of the liver. Complications. Diagnostics. Lead tactics. Forecast.

79. Diagnostic search for acute intestinal diseases.

80. Diagnostic search for liver lesions of various etiologies.

81. Slow infections. Prion diseases.

82. New and recurring infections.

83. Kidney damage in the clinic of infectious diseases.

84. Early and differential diagnosis of acute febrile diseases.

85. Early and differential diagnosis of diseases occurring with the syndrome of exanthema and enanthema.

86. Early and differential diagnosis of diseases occurring with lesions of the pharynx

87. Differential diagnosis of diseases occurring with catarrhal-respiratory syndrome.

88. Differential diagnosis of diseases occurring with lymphadenopathy. Diagnosis algorithm. Lead tactics.

89. Diagnosis and differential diagnosis of neuroinfections

90. Early and differential diagnosis of diseases occurring with pneumonia syndrome in the clinic of infectious diseases

91. Early and differential diagnosis of diseases occurring with hemorrhagic syndrome in the clinic of infectious diseases

92. Differential diagnosis of cholestasis syndrome

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### 93. Differential diagnosis of viral diarrhea.

### **10. SELF-STUDY WORK OF STUDENTS**

N⁰	Name of the section / subject	Types of SSW	Total number of hours	Current control
1	Escherichiosis	Elaboration of educational	6	Problem
1		material	Ũ	solving
				check
				Testing
2	Campylobacteriosis	Elaboration of educational	6	Problem
	1.7	material		solving
		Solving problems		check
		Preparing for the exam		Testing
3	Giardiasis	Elaboration of educational	6	Problem
		material		solving
		Solving problems		check
		Preparing for the exam		Testing
4	Toxoplasmosis	Elaboration of educational	6	Problem
		material		solving
		Solving problems		check
		Preparing for the exam		Testing
5	Mycoplasma infection	Elaboration of educational	6	Problem
		material		solving
		Solving problems		check
		Preparing for the exam		Testing
6	Rickettsioses: epidemic typhus	Elaboration of educational	6	Problem
	and Brill-Zinser disease	material		solving
		Solving problems		check
		Preparing for the exam		Testing
7	Tick-borne borelioses. Systemic	Elaboration of educational	6	Problem
	tick-borne borreoisosis (Lyme	material		solving
	disease)	Solving problems		check
0		Preparing for the exam	-	Testing
8	Seasonal encephalitis. California	Elaboration of educational	6	Problem
	encephalitis. Japanese tick-borne	material		solving
	encephalitis. Prevention of tick-	Solving problems		check
	borne infections. Arbovirus	Preparing for the exam		Testing
9	infections Rabies	Elaboration of educational	6	Problem
ソ	NaUles	material	0	
		Solving problems		solving check
		Preparing for the exam		Testing
10	Measles	Elaboration of educational	6	Problem
10	141045105	material	0	solving
		Solving problems		check
		Preparing for the exam		Testing
	COVID-19	Elaboration of educational	6	resung

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		material Solving problems Preparing for the exam		
12	Early and differential diagnosis of infectious diseases occurring with hemorrhagic syndrome			
13	Academic medical history	Writing an abstract after working out the educational material	24	Checking the academic medical history
	Total		96	

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## 11. EDUCATIONAL-METHODICAL AND INFORMATION SUPPORT OF DISCIPLINE

### 11. EDUCATIONAL-METHODICAL AND INFORMATION SUPPORT OF DISCIPLINE

List of recommended literature:

a) Core reading:

1 Yushchuk, N. D. Infectious diseases : textbook / Yushchuk N. D. , Vengerov Yu. Ya. - Москва : ГЭОТАР-Медиа, 2020. - 464 с. - ISBN 978-5-9704-5504-3. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : https://www.studentlibrary.ru/book/ISBN9785970455043.html

<u>2</u> Cases in Medical Microbiology: diagnostic methods, treatment and prophylaxis of infectious diseases / M. N. Artamonova, N. I. Potaturkina-Nesterova, I. S. Nemova, A. S. Khitrova; Ulyanovsk State University, Insitute of Medicine, Ecology and Physical culture. - Ulyanovsk : ULSU, 2020. - Текст на англ. яз.; Загл. с экрана. - Электрон. текстовые дан. (1 файл : 789 KБ). - URL: http://lib.ulsu.ru/MegaPro/Download/MObject/3997. - Режим доступа: ЭБС УлГУ. - Текст : электронный.

b) Supplementary reading:

1 Tarasova L. G. Orofacial tuberculosis: clinic, diagnosis, differential diagnosis / L. G. Tarasova. - Томск : Издательство СибГМУ, 2020. - 102 с. - ISBN 9785985911596. - Текст : электронный // ЭБС "Букап" : [сайт]. - URL : <u>https://www.books-up.ru/ru/book/orofacial-tuberculosis-clinic-diagnosis-differential-diagnosis-10782954/</u>

2 Матиевская Н. В. Tropical and parasitic diseases = Тропические и паразитарные болезни : пособие для студентов учреждений высшего образования, обучающихся по специальности 1-79 01 01 «Лечебное дело» (на англ. яз.) : manual for the Faculty of Foreign Students (in English) / Н. В. Матиевская, Д. А. Жмакин. - Гродно : ГрГМУ, 2019. - 408 с. - ISBN 9789855951279. - Текст : электронный // ЭБС "Букап" : [сайт]. - URL : <u>https://www.books-up.ru/ru/book/tropical-and-parasitic-diseases-12061046/</u>

3 lmukhina L. V. Scheme of the infectious patient's medical history in English : Educational and methodical manual / L. V. Ilmukhina, Saranskaya Ya. E.; Ulyanovsk State University. - Ulyanovsk : UlSU, 2022. - 16 p. - URL: http://lib.ulsu.ru/MegaPro/Download/MObject/11465. - Режим доступа: ЭБС УлГУ. - Текст : электронный.

c) Educational and methodical literature

Ilmukhina L.V.

Instructions for practical classes and independent work of students of the 5th course on the discipline "Infectious diseases" for direction 31.05.01 " General medicine " : methodical manual / L.V. Ilmukhina, Saranskaya Ya. E; Ulyanovsk State University. - Ulyanovsk : UlSU, 2021. - 25 р. - Неопубликованный ресурс. - URL: http://lib.ulsu.ru/MegaPro/Download/MObject/10891. - Режим доступа: ЭБС УлГУ. - Текст : электронный.

AGREED:

Cmap 10.04.2023 eading specialist Cmaperenernoba The position of the worker scientific library

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Профессиональные базы данных, информационно-справочные системы

#### 1. Электронно-библиотечные системы:

1.1. Цифровой образовательный ресурс IPRsmart : электронно-библиотечная система : сайт / ООО Компания «Ай Пи Ар Медиа». - Саратов, [2023]. – URL: http://www.iprbookshop.ru. – Режим доступа: для зарегистрир. пользователей. - Текст : электронный.

1.2. Образовательная платформа ЮРАЙТ : образовательный ресурс, электронная библиотека : сайт / ООО Электронное издательство «ЮРАЙТ». – Москва, [2023]. - URL: https://urait.ru. – Режим доступа: для зарегистрир. пользователей. - Текст : электронный.

1.3. База данных «Электронная библиотека технического ВУЗа (ЭБС «Консультант студента») : электронно-библиотечная система : сайт / ООО «Политехресурс». – Москва, [2023]. – URL: <u>https://www.studentlibrary.ru/cgi-bin/mb4x</u>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.4. Консультант врача. Электронная медицинская библиотека : база данных : сайт / ООО «Высшая школа организации и управления здравоохранением-Комплексный медицинский консалтинг». – Москва, [2023]. – URL: <u>https://www.rosmedlib.ru</u>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.5. Большая медицинская библиотека : электронно-библиотечная система : сайт / ООО «Букап». – Томск, [2023]. – URL: <u>https://www.books-up.ru/ru/library/</u>. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.6. ЭБС Лань : электронно-библиотечная система : сайт / ООО ЭБС «Лань». – Санкт-Петербург, [2023]. – URL: https://e.lanbook.com. – Режим доступа: для зарегистрир. пользователей. – Текст : электронный.

1.7. ЭБС Znanium.com : электронно-библиотечная система : сайт / ООО «Знаниум». - Москва, [2023]. - URL: <u>http://znanium.com</u>. – Режим доступа : для зарегистрир. пользователей. - Текст : электронный.

**2. КонсультантПлюс** [Электронный ресурс]: справочная правовая система. / ООО «Консультант Плюс» - Электрон. дан. - Москва : КонсультантПлюс, [2023].

3. Базы данных периодических изданий:

3.1. eLIBRARY.RU: научная электронная библиотека : сайт / ООО «Научная Электронная Библиотека». – Москва, [2023]. – URL: http://elibrary.ru. – Режим доступа : для авториз. пользователей. – Текст : электронный

3.2. Электронная библиотека «Издательского дома «Гребенников» (Grebinnikon) : электронная библиотека / ООО ИД «Гребенников». – Москва, [2023]. – URL: https://id2.action-media.ru/Personal/Products. – Режим доступа : для авториз. пользователей. – Текст : электронный.

4. Федеральная государственная информационная система «Национальная электронная библиотека» : электронная библиотека : сайт / ФГБУ РГБ. – Москва, [2023]. – URL: https://нэб.рф. – Режим доступа : для пользователей научной библиотеки. – Текст : электронный.

**5.** Российское образование : федеральный портал / учредитель ФГАУ «ФИЦТО». – URL: http://www.edu.ru. – Текст : электронный.

**6.** Электронная библиотечная система УлГУ : модуль «Электронная библиотека» АБИС Мега-ПРО / ООО «Дата Экспресс». – URL: http://lib.ulsu.ru/MegaPro/Web. – Режим доступа : для пользователей научной библиотеки. – Текст : электронный.

Согласовано:

<u>Ведусизий инженер / Шуренко Кав / Ман / 1805.20232</u> должность сотрудника УИТИТ БИО Подпись Дата

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## 11. EDUCATIONAL AND METHODICAL AND INFORMATION SUPPORT OF DISCIPLINE

A) a list of audiences necessary for conducting classroom classes in the discipline Infectious diseases

- Lecture room
- The audience in the infectious diseases hospital, necessary for practical training
- Computer class

- Chambers (boxes) in the infectious diseases hospital

B) The list of equipment necessary for conducting classroom classes in the discipline Infectious diseases

-Multimedia complex (laptop, projector, screen)

- Boards

-Slidescope

- -Sets of slides
- Multimedia various materials on various sections of the discipline

- Computers

### 12. SPECIAL CONDITIONS FOR STUDENTS WITH DISABILITIES

Training students with disabilities is carried out taking into account the peculiarities of psychophysical development, individual capabilities and health of such students. Education of students with disabilities can be organized in conjunction with other students, and separately. If necessary, students from among persons with disabilities (at the request of the student) may be offered one of the following options for the perception of information, taking into account their individual psychophysical characteristics:

- for persons with visual impairment: in printed form in large print; in the form of an electronic document; in the form of an audio file (translation of educational materials into audio format); in printed form in Braille; individual consultations with the involvement of a tiflosurdoperevodchika; individual tasks and consultations.
- for persons with hearing impairment: in printed form; in the form of an electronic document; video materials with subtitles; individual consultations with the assistance of a sign language interpreter; individual tasks and consultations.
- for persons with musculoskeletal disorders: in printed form; in the form of an electronic document; in the form of an audio file; individual tasks and consultations."

Developer Associate Professor of the Department of Dermatology and Infectious Diseases, Ph.D. Ilmukhina

senior lecturer of the Department of Dermatology and Infectious Diseases Saranskaya Ya. E.  $\[mathcal{N}\]$ 

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# EDUCATIONAL-METHODOLOGICAL AND INFORMATION SUPPORT OF THE DISCIPLINE

### List of recommended literature:

### a) Core reading:

1 Yushchuk, N. D. Infectious diseases : textbook / Yushchuk N. D. , Vengerov Yu. Ya. -Москва : ГЭОТАР-Медиа, 2020. - 464 с. - ISBN 978-5-9704-5504-3. - Текст : электронный // ЭБС "Консультант студента" : [сайт]. - URL : https://www.studentlibrary.ru/book/ISBN9785970455043.html

<u>2</u> Cases in Medical Microbiology: diagnostic methods, treatment and prophylaxis of infectious diseases / M. N. Artamonova, N. I. Potaturkina-Nesterova, I. S. Nemova, A. S. Khitrova; Ulyanovsk State University, Insitute of Medicine, Ecology and Physical culture. - Ulyanovsk : ULSU, 2020. - Текст на англ. яз.; Загл. с экрана. - Электрон. текстовые дан. (1 файл : 789 КБ). - URL: http://lib.ulsu.ru/MegaPro/Download/MObject/3997. - Режим доступа: ЭБС УлГУ. - Текст : электронный.

### b) Supplementary reading:

1 Tarasova L. G. Orofacial tuberculosis: clinic, diagnosis, differential diagnosis / L. G. Tarasova. - Томск : Издательство СибГМУ, 2020. - 102 с. - ISBN 9785985911596. - Текст : электронный // ЭБС "Букап" : [сайт]. - URL : <u>https://www.books-up.ru/ru/book/orofacial-tuberculosis-clinic-diagnosis-differential-diagnosis-10782954/</u>

2 Матиевская Н. В. Tropical and parasitic diseases = Тропические и паразитарные болезни : пособие для студентов учреждений высшего образования, обучающихся по специальности 1-79 01 01 «Лечебное дело» (на англ. яз.) : manual for the Faculty of Foreign Students (in English) / Н. В. Матиевская, Д. А. Жмакин. - Гродно : ГрГМУ, 2019. - 408 с. - ISBN 9789855951279. - Текст : электронный // ЭБС "Букап" : [сайт]. - URL : https://www.books-up.ru/ru/book/tropical-and-parasitic-diseases-12061046/

3 lmukhina L. V. Scheme of the infectious patient's medical history in English : Educational and methodical manual / L. V. Ilmukhina, Saranskaya Ya. E.; Ulyanovsk State University. - Ulyanovsk : UlSU, 2022. - 16 p. - URL: http://lib.ulsu.ru/MegaPro/Download/MObject/11465. - Режим доступа: ЭБС УлГУ. - Текст : электронный.

### c) Educational and methodical literature

### Ilmukhina L.V.

Instructions for practical classes and independent work of students of the 5th course on the discipline "Infectious diseases" for direction 31.05.01 "General medicine ": methodical manual / L.V. Ilmukhina, Saranskaya Ya. E; Ulyanovsk State University. - Ulyanovsk : UlSU, 2021. - 25 p. - Неопубликованный ресурс. - URL:

http://lib.ulsu.ru/MegaPro/Download/MObject/10891. - Режим доступа: ЭБС УлГУ. - Текст : электронный.

### AGREED:

Leading specialist	Стадо	ольникова/	maes	2024_
The position of the worker scientific lib	orary	Full name	signature	date

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### **D**) Professional databases, information and reference systems 1. Electronic library systems:

1.1. IPRsmart digital educational resource : electronic library system :

website / IP Media Company LLC. - Saratov, [2024]. - URL:

http://www.iprbookshop.ru - Access mode: for registration. users. - Text : electronic.

1.2. YURAYT educational platform: educational resource, electronic

library : website / LLC Electronic publishing house "YURAYT". - Moscow, [2024]. - URL:

https://urait.ru - Access mode: for registration. users. - Text : electronic.

1.3. Database "Electronic library of a technical university (EBS "

Student Consultant") : electronic library system : website / LLC "Politehresurs". – Moscow, [2024]. – URL: https://www.studentlibrary.ru/cgi-bin/mb4x. – Access mode: for registration. users. – Text : electronic.

1.4. Doctor's consultant. Electronic Medical Library : database : website /

LLC Higher School of Healthcare Organization and Management-Comprehensive

medical consulting". - Moscow, [2024]. - URL: https://www.rosmedlib.ru -

Access mode: for registration. users. – Text : electronic.

1.5. Large Medical Library : electronic library system : website /

LLC "Bukap". – Tomsk, [2024]. – URL: https://www.books-up.ru/ru/library/. – Access mode: for registration. users. – Text : electronic.

1.6. EBS Lan : electronic library system : website / EBS Lan LLC. – St.

Petersburg, [2024]. – URL: https://e.lanbook.com - Access mode: for registration. users. – Text : electronic.

1.7. EBS Znanium.com : electronic library system : website / Znanium LLC. -

Moscow, [2024]. - URL: http://znanium.com . – Access mode : for registration. users. - Text : electronic.

2. ConsultantPlus [Electronic resource]: legal reference system. / LLC

Consultant Plus - Electron. dan. - Moscow : ConsultantPlus, [2024].

**3.** eLIBRARY.RU : scientific electronic library : website / LLC "Scientific Electronic Library". – Moscow, [2024]. – URL: http://elibrary.ru - Access mode : for authorization.

users. – Text : electronic

4. Federal State Information System "National

Electronic Library" : electronic library : website / FGBI RGB. – Moscow, [2024]. –

URL: https://h<br/>ə6.p $\varphi$  – Access mode: for users of the scientific library. – Text : electronic.

5. Russian education : federal portal / founder of FGAU "FITZTO". -

URL: http://www.edu.ru - Text : electronic.

6. UISU electronic Library system: module "Electronic Library"

**ABIS Mega-PRO / Date Express LLC**. – URL: http://lib.ulsu.ru/MegaPro/Web. – Mode access : for users of the scientific library. – Text : electronic.

Agreed:

Lead Engineer / Shchurenko Yu.V. Должность сотрудника УИТиТ Name

date

Ministry of science and high education RF Ulyanovsk State University	Form	
F-Educational plan of the discipline		

### MATERIAL AND TECHNICAL SUPPORT OF THE DISCIPLINE A) a list of classrooms required for classroom training in the discipline Infectious diseases

### - Lecture audience

- An auditorium in an infectious diseases hospital, necessary for practical training
- Computer class
- Chambers (boxes) in an infectious diseases hospital

B) List of equipment required for classroom instruction in the discipline Infectious Diseases -Multimedia complex (laptop, projector, screen)

- Boards
- -Slidoscope
- -Slide Sets
- Multimedia various materials on various sections of the discipline
- Computers

### **13.SPECIAL CONDITIONS FOR STUDENTS WITH DISABILITIES**

If necessary, students from among persons with disabilities (at the request of the student) can be offered one of the following options for the perception of information, taking into account their individual psychophysical characteristics:

 $\Box$  for persons with visual impairments: in printed form in an enlarged font; in the form of an electronic document; in the form of an audio file (translation of educational materials into audio format); in printed form in Braille; individual consultations with the involvement of a tiflosurd interpreter; individual assignments and consultations;

 $\Box$  for persons with hearing impairments: in printed form; in the form of an electronic document; videos with subtitles; individual consultations with the involvement of a sign language interpreter; individual assignments and consultations;

□ for persons with disabilities of the musculoskeletal system: in printed form; in the form of an electronic document; in the form of an audio file; individual assignments and consultations. \*If it is necessary to use partly distance educational technologies in the educational process, the organization of work with students with disabilities and disabled people is provided in the electronic information and educational environment, taking into account their individual psychophysical characteristics.

### Developer

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Ministry of science and high education RF Ulyanovsk State University	Form	Ű
F-Educational plan of the discipline		

### LIST OF CHANGES of Speciality 31.05.01. «General medicine» Educational plan of discipline "Infectious diseases"

Nº	Content of the change or a link to the attached text of the	Full name of the head of the Department developing the discipline	Signature	Date
1	Introduction of changes to item D) Professional databases, information and reference systems item 11 "Educational, methodological and information support of the discipline" with the design of Appendix 3		Heco	22.05.2024