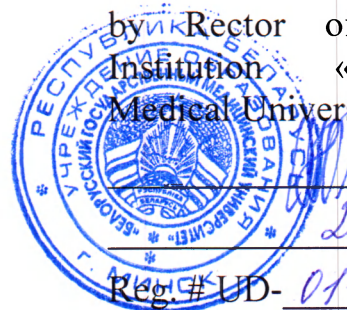


MINISTRY OF HEALTH OF THE REPUBLIC OF BELARUS
Educational Institution
BELARUSIAN STATE MEDICAL UNIVERSITY

APPROVED

by Rector of the Educational
Institution «Belarusian State
Medical University»

S.P.Rubnikovich



24.06.2023

Reg. # UD- 01-30/2324 /edu.

Контрольный
экземпляр

EPIDEMIOLOGY

**Curriculum of the educational institution
in the academic discipline for the specialty**

1-79 01 01 «General Medicine»

Curriculum is based on the educational program «Epidemiology», approved 27.06.2023, registration # УД-08-30/2324/уч.; on the educational plan in the specialty 1-79 01 01 «General Medicine», approved 17.05.2022, registration # 7-07-0911-01/2324/mf.

COMPILERS:

I.N.Valchuk, Head of the Department of Epidemiology of the educational institution «Belarusian State Medical University», PhD, Associate Professor;

I.V.Fedorova, Associate Professor of the Department of Epidemiology of the educational institution «Belarusian State Medical University», PhD, Associate Professor

RECOMMENDED FOR APPROVAL:

by the Department of Epidemiology of the educational institution «Belarusian State Medical University»
(protocol # 18 of 02.06.2023);

by the Scientific and Methodological Council of the educational institution «Belarusian State Medical University»
(protocol # 6 of 27.06.2023)

EXPLANATORY NOTE

«Epidemiology» is an academic discipline of the module «Medical-prophylactic Module», which contains systematic scientific knowledge about the epidemic process, methods of its study, anti-epidemic measures and the organization of their implementation in order to prevent infectious diseases, reduce the incidence of infectious diseases and eliminate individual infections.

The purpose of the discipline «Epidemiology» is the formation of basic professional competencies for solving the tasks of professional activity in the field of medical prevention of infectious diseases; organization and implementation of preventive, sanitary and anti-epidemic measures for infectious diseases.

The objectives of the discipline «Epidemiology» are to form students' scientific knowledge about:

- causes, conditions, mechanisms of development and manifestations of the epidemic process of infectious diseases on the territory of the Republic of Belarus;
- organization and implementation of immunoprophylaxis of infectious diseases;
- methods of medical prevention of infectious diseases with various transmission mechanisms;

- principles of anti-epidemic work at the medical site;

- skills and abilities required for:

- assessing the epidemiological situation of an infectious disease;

- organization and implementation of preventive measures in relation to infectious diseases;

- conducting sanitary and anti-epidemic measures, organizing and conducting immunoprophylaxis to the population of the Republic of Belarus.

The knowledge, skills, and skills acquired during the study of the discipline «Epidemiology» are necessary for the successful study of the discipline «Infectious diseases».

Studying the educational discipline «Epidemiology» should ensure the formation of students' basic professional competency:

BPC. Use knowledge about the epidemic process patterns and methods of their study, immunoprophylaxis of infectious diseases, principles of epidemiological examination of infectious diseases focal areas, organize preventive, sanitary and anti-epidemic measures for intestinal, aerosol infections and infections with a predominantly parenteral mechanism.

As a result of studying the discipline «Epidemiology», the student should

know:

- rules of medical ethics and deontology;

- basic concepts of epidemiology: epidemic process, source of infection, transmission mechanism, transmission pathways, transmission factors, epidemic focus;

- modern doctrine about the epidemic process;

- the main groups of anti-epidemic measures;

- the main preventive and anti-epidemic measures for certain infectious diseases;

general characteristics of the main groups of disinfectants, methods and types of disinfection and sterilization;

fundamentals of immunoprophylaxis of infectious diseases;

fundamentals of epidemiology of infections related to medical care;

factors, mechanisms of development and manifestations of the epidemic process, the main preventive and anti-epidemic measures for certain intestinal, aerosol infections, infections with a transmissible transmission mechanism and parenteral infection mechanism;

be able to:

epidemiologically substantiate programs for the prevention of morbidity of the population with infectious and non-communicable diseases;

to organize and carry out preventive vaccinations with the use of various immunobiological drugs and schemes;

justify and organize disinfection and sterilization measures depending on the epidemiological characteristics of the infection;

carry out primary anti-epidemic and preventive measures for various infectious diseases;

apply methods of prevention of nosocomial infections, methods of prevention of infectious diseases with various transmission mechanisms;

master:

methods of prevention of topical infectious diseases;

the main methods of immunoprophylaxis of infectious diseases;

skills of immunoprophylaxis of infectious diseases;

methods of disinfection and sterilization of medical devices.

Total number of hours for the study of the discipline is 108 academic hours. Classroom hours according to the types of studies: lectures - 12 hours, practical classes - 36, supervised student independent work - 4, student independent work (self-study) - 60 hours.

Intermediate assessment is carried out according to the syllabus of the specialty in the form of a credit (5 semester).

Form of higher education – full-time.

**ALLOCATION OF ACADEMIC TIME
ACCORDING TO SEMESTERS OF STUDY**

Code, name of the specialty	semester	Number of academic hours						Form of intermediate assessment
		total	in-class	including			out-of-class self-studies	
				lectures (including supervised independent work)	supervised student independent work	practical classes		
1-79 01 01 «General Medicine»	5	108	48	12	4	36	60	credit

THEMATIC PLAN

Name of the section (topic)	Number of class hours	
	lectures	practical
1. General epidemiology	2	6
1.1. Epidemiology as a science and academic discipline, its place in the structure of medical sciences. Medical ethics and deontology	1	-
1.2. Modern doctrine about the epidemic process	1	-
1.3. Basic concepts of epidemiology	-	2
1.4. Anti-epidemic measures and means	-	2
1.5. Organization of anti-epidemic work in outpatient clinics and in medical and preventive organizations	-	2
2. Immunoprophylaxis of infectious diseases	4	18
2.1. Fundamentals of immunoprophylaxis of infectious diseases	2	-
2.2. Organizational and methodological issues of immunoprophylaxis of infectious diseases	2	6
2.3. Immunoprophylaxis of infectious diseases included in the National Calendar of preventive vaccinations	-	6
2.4. Immunoprophylaxis of infectious diseases according to epidemic indications	-	6
3. Special epidemiology	2	12
3.1. Intestinal infections	-	3
3.2. Aerosol infections	-	3
3.3. Infections with a predominantly parenteral mechanism of infection	2	3
3.4. Infections with a transmissible mechanism of transmission	-	3
4. Infections associated with the provision of medical care. Epidemiological safety in the provision of medical care	2	-
5. Clinical epidemiology	2	-
Total hours	12	36

CONTENT OF THE EDUCATIONAL MATERIAL

1. General epidemiology

1.1. Epidemiology as a science and academic discipline, its place in the structure of medical sciences. Medical ethics and deontology

Infectious diseases as an object of epidemiology. The epidemic process as a subject of epidemiology. Definition of the concept of «epidemiology». The structure of epidemiology as the science of the epidemic process. General epidemiology: subject and method, doctrine about the epidemic process, epidemiological diagnostics, anti-epidemic measures and means, organization of anti-epidemic provision. Special epidemiology. Epidemiology in the structure of medical sciences.

Rules of medical ethics and deontology.

1.2. Modern doctrine about the epidemic process

Definition of the concept of «epidemic process». Factors of the epidemic process. The mechanism of development of the epidemic process. Theory of self-regulation of parasitic systems. Theory of the transmission mechanism. Manifestations of the epidemic process on a qualitative and quantitative basis.

1.3. Basic concepts of epidemiology

Sources of infection: categories and epidemiological significance. Definition of the concept of «transmission mechanism». Factors and ways of transmission. Types of transmission mechanisms: aerosol, fecal-oral, contact, transmissive, vertical. Specificity of transmission mechanisms. Susceptibility and resistance and their significance in the development of the epidemic process. Epidemic focus: definition of the concept, characteristics (size, time of existence).

1.4. Anti-epidemic measures and means

Definition of the concept of «anti-epidemic measures». Classification of anti-epidemic measures: measures aimed at the source of infection; measures aimed at the mechanism of transmission; measures aimed at the susceptibility of the organism. Criteria for the selection of anti-epidemic measures. Definition of the concept of «antiepidemic agents». The main groups of anti-epidemic agents (antibiotics, vaccines, immune serums, immunoglobulins, bacteriophages, disinfectants, raticides, insecticides).

1.5. Organization of anti-epidemic work in outpatient clinics and medical and preventive organizations

Functions of outpatient polyclinic organizations in the anti-epidemic provision of the population: identification of patients with infectious diseases, accounting and registration, informing institutions that carry out state sanitary supervision, resolving the issue of isolation at home or hospitalization in an infectious hospital organization, treatment, admission of sick people to collectives, dispensary supervision, organization of current disinfection, immunoprophylaxis, readiness for conducting anti-epidemic measures in case of detection of patients with suspected infectious disease, of international importance, participation in the prevention of helminthiasis, hygienic education of the population.

The functions of medical and preventive organizations in the anti-epidemic provision of the population: isolation and treatment of patients with infectious diseases; prevention of infections associated with the provision of medical care.

Disinfection and sterilization in the anti-epidemic system. Definition of the concept of «disinfection». Types and methods of disinfection. Requirements for disinfectants. The main groups of disinfectants. Disinfection quality control.

Definition of the concept of «sterilization». Indications for sterilization of medical devices and its stages. Methods of sterilization. Organization of sterilization (centralized sterilization department). Quality control of pre-sterilization cleaning and sterilization.

Organization of disinfection and sterilization measures depending on the epidemiological characteristics of the infection.

General characteristics of methods and means of disinfection and deratization.

Epidemiological safety of medical activity. Infection control.

2. Immunoprophylaxis of infectious diseases

2.1. Fundamentals of immunoprophylaxis of infectious diseases

The role and place of immunoprophylaxis in the system of prevention of infectious diseases. Stages of formation of immunoprophylaxis. The main groups of immunobiological drugs. Definition of the concepts of «immunity», «immune response of the body». Indications and contraindications to vaccinations. Adverse reactions to vaccination and their prevention. Expanded Immunization Program of the World Health Organization. Legal bases of immunoprophylaxis. Prospects for the development of immunoprophylaxis of infectious diseases.

2.2. Organizational and methodological issues of immunoprophylaxis of infectious diseases

General requirements for the organization of vaccinations. Technical regulatory legal acts on immunoprophylaxis. National calendar of preventive vaccinations. Preventive vaccinations for epidemic indications. Planning of preventive vaccinations. Requirements for the device and equipment of vaccination offices of organizations. Requirements for transportation and storage of immunobiological medicines. Requirements for preventive vaccinations. The concept of adverse reactions to preventive vaccinations: types, detection, registration, investigation. Evaluation of the quality and effectiveness of immunoprophylaxis.

2.3. Immunoprophylaxis of infectious diseases included in the National Calendar of preventive vaccinations

Immunoprophylaxis of viral hepatitis B, tuberculosis, polio, diphtheria, whooping cough, tetanus, measles, mumps, rubella, hemophilic infection type B, pneumococcal infection, influenza: immunobiological drugs, calendar of preventive vaccinations and vaccination regimens, characteristics of acquired post-vaccination immunity, vaccination effectiveness, adverse reactions after preventive vaccinations, determination of contraindications to vaccinations, vaccination according to epidemic indications.

2.4. Immunoprophylaxis of infectious diseases according to epidemic indications

Epidemic indications for preventive vaccinations against viral hepatitis A, chickenpox, influenza, rabies: immunobiological drugs, vaccination regimens, characteristics of acquired post-vaccination immunity, vaccination effectiveness, adverse reactions after preventive vaccinations, determination of contraindications to vaccination.

Prevention of tetanus according to epidemic indications: characteristics of immunobiological drugs, indications, scheme for choosing the type of emergency prevention.

Carrying out preventive vaccinations against infections that are not included in the National Calendar of preventive vaccinations: papillomavirus infection, rotavirus infection.

3. Special epidemiology

3.1. Intestinal infections

Intestinal infections: general epidemiological characteristics, role in human infectious pathology. Characteristics of the fecal-oral mechanism of transmission of intestinal infections. Determination of the boundary and time of existence of the focus of an infectious disease with a fecal-oral transmission mechanism. Fundamentals of prevention and anti-epidemic measures.

Shigellosis: characteristics of the pathogen; mechanism of development of the epidemic process; manifestations of the epidemic process; prevention, drawing up a plan of sanitary and anti-epidemic measures about the outbreak.

Salmonella infections: characteristics of pathogens; mechanism of development of the epidemic process; manifestations of the epidemic process; prevention, drawing up a plan of sanitary and anti-epidemic measures about the outbreak.

Rotavirus infection: characteristics of pathogens; mechanism of development of the epidemic process; manifestations of the epidemic process; prevention, drawing up a plan of sanitary and anti-epidemic measures about the outbreak.

Viral hepatitis A: characteristics of the pathogen; mechanism of development of the epidemic process; manifestations of the epidemic process; prevention, drawing up a plan of sanitary and anti-epidemic measures about the outbreak.

3.2. Aerosol infections

Aerosol infections: general epidemiological characteristics, role in human infectious pathology. Characteristics of the aerosol transmission mechanism. Determination of the boundary and time of existence of the focus of an infectious disease with an aerosol transmission mechanism. Fundamentals of prevention and sanitary and anti-epidemic measures.

Meningococcal infection: characteristics of the pathogen; mechanism of development of the epidemic process; manifestations of the epidemic process; prevention, drawing up a plan of sanitary and anti-epidemic measures about the focus. The importance of vaccination in the prevention of the incidence of meningococcal infection.

Respiratory streptococcal infection of group A: characteristics of the pathogen; mechanism of development of the epidemic process; manifestations of the epidemic process; prevention, drawing up a plan of sanitary and anti-epidemic measures about the focus.

Influenza characteristics of the pathogen; mechanism of development of the epidemic process; manifestations of the epidemic process; prevention. The importance of vaccination in preventing the incidence of influenza.

New coronavirus infection: characteristics of the pathogen; mechanism of development of the epidemic process; manifestations of the epidemic process; prevention. The importance of vaccination in the prevention of the incidence of a new coronavirus infection.

3.3. Infections with a predominantly parenteral mechanism of infection

A disease caused by the human immunodeficiency virus (HIV).

HIV infection and acquired immunodeficiency syndrome: characteristics of the pathogen; mechanism of development of the epidemic process; manifestations of the epidemic process; prevention; determination of the boundary and time of existence of the focus; drawing up a plan of sanitary and anti-epidemic measures.

Viral hepatitis B, D, C and others: characteristics of pathogens; mechanism of development of the epidemic process; manifestations of the epidemic process; prevention; determination of the boundary and time of existence of the focus; drawing up a plan of sanitary and anti-epidemic measures.

3.4. Infections with a transmissible mechanism of transmission

Epidemiological characteristics of transmissible infections.

Tick-borne encephalitis: characteristics of the pathogen; mechanism of development of the epidemic process; manifestations of epizootic and epidemic processes; prevention; sanitary and anti-epidemic measures.

Lyme disease: characteristics of the pathogen; mechanism of development of the epidemic process; manifestations of epizootic and epidemic processes; prevention; sanitary and anti-epidemic measures.

4. Infections associated with the provision of medical care. Epidemiological safety in the provision of medical care

Definition of the concept of «infections associated with the provision of medical care», epidemiological characteristics of pathogens, features of hospital strains. The mechanism of development of the epidemic process of infections associated with the provision of medical care, manifestations of the epidemic process, risk factors. Epidemiological surveillance and infection control of infections associated with the provision of medical care. Fundamentals of prevention, sanitary and anti-epidemic measures.

5. Clinical epidemiology

Introduction to clinical epidemiology. Clinical epidemiology is the methodological basis of evidence-based medicine. Organization of epidemiological studies. Clinical epidemiology: definition of the concept; clinical epidemiology in medical practice, in scientific research, in the educational process; clinical epidemiology and evidence-based medicine; morbidity; study of incidence; frequency indicators and their comparison; the concept of causality in epidemiology (single and

multiple causes, identification of causes); risk groups; risk factors; outcomes of the disease; interfering factors.

Organization of epidemiological studies. Planning and conducting research: determining the purpose of the study; choosing a research method; data collection (sampling data from medical documents, creating questionnaires); determining the sample size; sampling methods; data analysis. Design of epidemiological studies. Methods of epidemiological studies: randomized controlled trials, cohort studies, case-control studies, cross-sectional studies.

**ACADEMIC DISCIPLINE CURRICULAR CHART OF THE DISCIPLINE «EPIDEMIOLOGY» MODULE OF
THE «MEDICAL AND PREVENTIVE MODULE»**

Section, topic #	Section (topic) name	number of hours				Self-studies	Form of control
		lectures	supervised student work	practical			
5 semester							
1.	General epidemiology	2	0,5	6	9		
1.1.	Epidemiology as a science and academic discipline, its place in the structure of medical sciences. Modern doctrine about the epidemic process	2	0,5	-	-		Control survey, electronic tests
1.2.	Basic concepts of epidemiology	-	-	2	3		Control survey, electronic tests
1.3.	Anti-epidemic measures and means	-	-	2	3		Control survey, electronic tests
1.4.	Organization of anti-epidemic work in outpatient clinics and in medical and preventive organizations	-	-	2	3		Control survey, electronic tests
2.	Immunoprophylaxis of infectious diseases	4	2	18	27		
2.1.	Fundamentals of immunoprophylaxis of infectious diseases	2	1	-	-		Control survey, electronic tests
2.2.	Organizational and methodological issues of immunoprophylaxis of infectious diseases	2	1	-	-		Control survey, electronic tests
2.3.	Organizational and methodological issues of immunoprophylaxis of infectious diseases: general requirements for the organization of	-	-	2	3		Control survey, electronic tests

	vaccinations; technical regulations on immunoprophylaxis; National Calendar of preventive vaccinations; preventive vaccinations for epidemic indications; planning of preventive vaccinations						Control survey, electronic tests
2.4.	Organizational and methodological issues of immunoprophylaxis of infectious diseases: requirements for the device and equipment of vaccination offices of organizations; requirements for transportation and storage of immunobiological medicines; requirements for preventive vaccinations	-	-	2	3		Control survey, electronic tests
2.5.	Organizational and methodological issues of immunoprophylaxis of infectious diseases: the concept of adverse reactions to preventive vaccinations: types, detection, registration, investigation, evaluation of the quality and effectiveness of immunoprophylaxis	-	-	2	3		Control survey, electronic tests
2.6.	Immunoprophylaxis of infectious diseases included in the National Calendar of preventive vaccinations: viral hepatitis B, tuberculosis, diphtheria, whooping cough, tetanus	-	-	2	3		Control survey, electronic tests
2.7.	Immunoprophylaxis of infectious diseases included in the National Calendar of Preventive vaccinations: immunoprophylaxis of polio, measles, rubella, mumps	-	-	2	3		Control survey, electronic tests
2.8.	Immunoprophylaxis of infectious diseases included in the National Calendar of Preventive vaccinations: immunoprophylaxis of hemophilic infection type B, pneumococcal infection, influenza; preparation of the patient's	-	-	2	3		Control task

	vaccination schedule in accordance with the National Calendar of Preventive Vaccinations								
2.9.	Immunoprophylaxis of infectious diseases according to epidemic indications: hepatitis A, chickenpox, influenza	-	-	2	3				Control survey, electronic tests
2.10.	Immunoprophylaxis of infectious diseases according to epidemic indications: tetanus and rabies	-	-	2	3				Control survey, electronic tests
2.11.	Carrying out preventive vaccinations against infections that are not included in the National Calendar of preventive vaccinations: papillomavirus infection, rotavirus infection	-	-	2	3				Control survey, electronic tests
3.	Special epidemiology	2	0,5	12	24				
3.1.	Intestinal infections: general epidemiological characteristics; fundamentals of prevention and anti-epidemic measures. Shigellosis. Salmonella infections	-	-	2	3				Control survey, electronic tests
3.1.	Intestinal infections: rotavirus infection, viral hepatitis A. Aerosol infections: general epidemiological characteristics; fundamentals of prevention and anti-epidemic measures	-	-	2	3				Control survey, electronic tests
3.2.	Aerosol infections: meningococcal infection, group A respiratory streptococcal infection, influenza, new coronavirus infection	-	-	2	3				Control survey, electronic tests
3.4.	Infections with a predominantly parenteral mechanism of infection	2	0,5	-	-				Control survey, electronic tests
3.4., 3.5	Infections with a predominantly parenteral mechanism of infection: a disease caused by the human immunodeficiency virus (HIV)	-	-	2	5				Control survey, electronic tests
3.6.	Infections with a predominantly parenteral mechanism of infection: viral hepatitis B, D, C	-	-	2	5				Control survey, electronic tests

	and others. Epidemiological characteristics of transmissible infections							
3.4.	Vector-borne infections: tick-borne encephalitis, Lyme disease. Final lesson	-	-	2	5			Control survey, electronic tests. Credit
4.	Infections associated with the provision of medical care. Epidemiological safety in the provision of medical care	2	0,5	-	-			Control survey, electronic tests
5.	Clinical epidemiology	2	0,5	-	-			Control survey, electronic tests
	Total	12	4	36	60			

INFORMATION AND INSTRUCTIONAL UNIT

LITERATURE

Basic:

1. Мамчиц, Л. П. Эпидемиология = Epidemiology : учебное пособие для иностр. студентов учреждений высш. образования по спец «Лечебное дело». – Минск : Вышэйшая школа, 2021. – 191 с.

Additional:

2. Шилова, М. А. Основы общей эпидемиологии. Противоэпидемические мероприятия и средства. Противоэпидемическая работа в организациях здравоохранения = Basics of general epidemiology. Anti-epidemic measures and means. Epidemic control measures in health care organizations : учеб.-метод. пособие. – Минск: БГМУ, 2019. – 28 с.

3. Gelentano, D. D. Gordis epidemiology / D. D. Gelentano, M. Szklo. – Elsevier, 2019. – 420 p.

METHODOLOGICAL RECOMMENDATIONS FOR THE ORGANIZATION AND PERFORMANCE OF STUDENT INDEPENDENT WORK IN THE ACADEMIC DISCIPLINE

The time allotted for independent work can be used by students for:

- preparation for lectures, practical classes;
- preparation for a test in an academic discipline;
- study of topics (questions) submitted for independent study;
- problem solving;
- performing research and creative tasks;
- preparation of thematic reports, abstracts, presentations;
- performing practical tasks;
- taking notes of educational literature;
- preparation of reports;
- compilation of a review of scientific literature on a given topic;
- design of information and demonstration materials (posters, graphs, tables);
- compilation of a thematic selection of literary sources, internet sources.

METHODOLOGICAL RECOMMENDATIONS FOR THE ORGANIZATION AND PERFORMANCE OF SUPERVISED STUDENT INDEPENDENT WORK IN THE ACADEMIC DISCIPLINE

The main forms of organization of managed independent work:

- writing and presentation of the abstract;
- presentation of the report;
- study of topics and problems that are not brought to lectures;
- taking notes of primary sources (sections of anthologies, collections of documents, monographs, textbooks);
- computer testing;
- preparation of tests by students for the organization of mutual control;
- production of didactic materials;

preparation and participation in active forms of education.

The control of controlled independent work is carried out in the form of:
control work;

the final lesson in the form of an oral interview, written work, testing;
protection of training tasks;

evaluation of an oral answer to a question, a message, a report or a solution to a
problem;

checking summaries of primary sources, monographs and articles;
individual conversation.

LIST OF AVAILABLE DIAGNOSTIC TOOLS

The following forms are used for competences assessment:

Oral form:

interview;

report on home practical exercises with their oral defense;

control survey.

Written form:

solving situational problems;

control work;

Oral and written form:

credit.

Technical form:

electronic tests.

LIST OF AVAILABLE DOCTRINE METHODS

Traditional method (lecture, laboratory practicals);

Active (interactive) methods:

Problem-Based Learning (PBL);

Team-Based Learning (TBL);

Research-Based Learning (RBL).

LIST OF PRACTICAL SKILLS

1. Determination of the boundary and time of existence of the focus of an infectious disease with an aerosol transmission mechanism.

2. Determination of the boundary of the focus and the time of existence of the focus of an infectious disease with a fecal-oral transmission mechanism.

3. Determination of the boundary of the focus and the time of existence of the focus of an infectious disease with a parenteral mechanism of infection.

4. Determination of the function of medical forces and means in the system of anti-epidemic provision.

5. Organization of disinfection and sterilization measures depending on the epidemiological characteristics of the infection.

6. Drawing up a plan of sanitary and anti-epidemic measures in the foci of infectious diseases with various transmission mechanisms.

7. Evaluation of the quality and effectiveness of immunoprophylaxis.
8. Grouping, systematization and generalization of information on the assessment of sanitary and epidemiological well-being of the population with justification of preventive measures.
9. Assessment of compliance with the «cold» chain».
10. Determination of the type of animal with suspected rabies, the nature of contact and the severity of the bites received, justification of the scheme of emergency prevention of rabies.
11. Determination of indications for emergency prevention of tetanus in a patient with an infected wound.
12. Drawing up an individual vaccination schedule for a patient with an unknown vaccination status.
13. Drawing up an individual vaccination schedule for a patient with a serious adverse reaction to the previous dose of the vaccine.
14. Drawing up an individual vaccination schedule for a patient with a contraindication to the introduction of a live vaccine.
15. Drawing up an individual vaccination schedule for a patient with hypersensitivity to the vaccine component
16. Drawing up an individual vaccination schedule for a patient with a violation of the vaccination schedule according to the calendar.
17. Drawing up an individual vaccination schedule for a patient with diseases of the nervous system, burdened with allergic anamnesis.

LIST OF EQUIPMENT USED

1. Posters

- 1.1. Human immunity.
- 1.2. Classification of medical immunobiological medicines.
- 1.3. Factors of immunity.
- 1.4. Vaccine-controlled infections (viral hepatitis B, tuberculosis, polio, diphtheria, whooping cough, tetanus, measles, rubella, mumps): epidemiological characteristics, patterns and features of the epidemic process.
- 1.5. Side effects of vaccines.
- 1.6. Classification of vaccines used for the prevention of influenza.
- 1.7. Programs for the elimination and elimination of certain infectious diseases.
- 1.8. Manifestations of the epidemic process in intestinal infections (shigellosis, escherichiosis, salmonellosis, rotavirus infection, enterovirus infection) and viral hepatitis A and E.
- 1.9. Manifestations of the epidemic process in aerosol anthroponotic infections (streptococcal, meningococcal infections, chickenpox, acute respiratory infections, Middle East respiratory syndrome).
- 1.10. Manifestations of the epidemic process in zoonotic infections (tick-borne encephalitis, Lyme disease, rabies).

2. Tools and equipment

- 2.1. Models of immunobiological medicines.
- 2.2. Layouts of control cards-indicators.

- 2.3. Layout of a self-locking syringe.
- 2.4. Models of refrigerants.
- 2.5. Containers-containers for collecting sharp instruments.
- 2.6. Indicators for monitoring sterilization cycles.
- 2.7. Sterilization packaging bags.
- 2.8. Biological indicators of sterilization.
- 2.9. Test bags for sterilizers.
- 2.10. Self-adhesive paper bags with indicators for steam and air sterilization.
- 2.11. Hand treatment technique.

3. Computer presentations

4. Tables

- 4.1. The structure of epidemiological surveillance of infectious diseases.
- 4.2. The system of anti-epidemic provision of the population.
- 4.3. Functions of the sanitary and epidemiological service.
- 4.4. Classification of infectious diseases.
- 4.5. The map of the epidemiological examination of the focus of the infectious disease.
- 4.6. The card of preventive vaccinations.
- 4.7. Journal of infectious diseases.
- 4.9. Chamber disinfection.
- 4.10. Cabinet of infectious diseases.
- 4.11. Monitoring of the implementation of the main indicators of immunization of the child population.
- 4.12. Recommended temperatures and storage periods at different levels of the «cold» chain.
- 4.13. Log of emergency contacts of health care workers with biological material of patients.
- 4.17. Incidence of infectious and parasitic diseases of the population of the Republic of Belarus.

LIST OF LECTURES

1. Epidemiology as a science and academic discipline, its place in the structure of medical sciences. Modern doctrine about the epidemic process.
2. Fundamentals of immunoprophylaxis of infectious diseases.
3. Organizational and methodological issues of immunoprophylaxis of infectious diseases.
4. Infections with a predominantly parenteral mechanism of infection.
5. Infections associated with the provision of medical care. Epidemiological safety in the provision of medical care.
6. Clinical epidemiology.

LIST OF PRACTICAL CLASSES

1. Basic concepts of epidemiology.
2. Anti-epidemic measures and means.

2. Organization of anti-epidemic work in outpatient clinics and medical and preventive organizations.

3. Organizational and methodological issues of immunoprophylaxis of infectious diseases: general requirements for the organization of vaccinations; technical regulations on immunoprophylaxis; National Calendar of preventive vaccinations; preventive vaccinations for epidemic indications; planning of preventive vaccinations.

4. Organizational and methodological issues of immunoprophylaxis of infectious diseases: requirements for the device and equipment of vaccination offices of organizations; requirements for transportation and storage of immunobiological medicines; requirements for preventive vaccinations.

5. Organizational and methodological issues of immunoprophylaxis of infectious diseases: the concept of adverse reactions to preventive vaccinations: types, detection, registration, investigation, evaluation of the quality and effectiveness of immunoprophylaxis.

6. Immunoprophylaxis of infectious diseases included in the National Calendar of Preventive vaccinations: immunoprophylaxis of polio, measles, rubella, mumps.

7. Immunoprophylaxis of infectious diseases included in the National Calendar of Preventive vaccinations: immunoprophylaxis of hemophilic infection type B, pneumococcal infection, influenza; preparation of the patient's vaccination schedule in accordance with the National Calendar of Preventive Vaccinations.

8. Immunoprophylaxis of infectious diseases according to epidemic indications: hepatitis A, chickenpox, influenza.

9. Immunoprophylaxis of infectious diseases according to epidemic indications: tetanus and rabies.

10. Carrying out preventive vaccinations against infections that are not included in the National Calendar of preventive vaccinations: papillomavirus infection, rotavirus infection.

11. Intestinal infections: general epidemiological characteristics; fundamentals of prevention and anti-epidemic measures. Shigellosis. Salmonella infections.

12. Intestinal infections: rotavirus infection, viral hepatitis A. Aerosol infections: general epidemiological characteristics; fundamentals of prevention and anti-epidemic measures.

13. Aerosol infections: meningococcal infection, group A respiratory streptococcal infection, influenza, new coronavirus infection.

14. Infections with a predominantly parenteral mechanism of infection: a disease caused by the human immunodeficiency virus (HIV).

15. Infections with a predominantly parenteral mechanism of infection: viral hepatitis B, D, C and others. Epidemiological characteristics of transmissible infections.

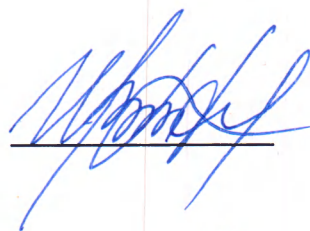
16. Vector-borne infections: tick-borne encephalitis, Lyme disease. Final lesson.

**PROTOCOL OF THE CURRICULUM APPROVAL
BY OTHER DEPARTMENTS**

Title of the discipline requiring approval	Department	Amendments to the curriculum in the academic discipline	Decision of the department, which designed the curriculum (date, protocol #)
Infectious diseases	Infectious diseases	no	Protocol #18 dated 02.06.2023

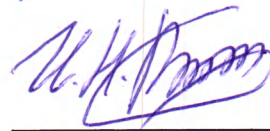
COMPILERS/AUTHORS:

Associate Professor of the Department of Epidemiology of the educational institution «Belarusian State Medical University», PhD, Associate Professor



I.V.Fedorova

Head of the Department of Epidemiology of the educational institution «Belarusian State Medical University», PhD, Associate Professor



I.N.Valchuk

Curriculum content, composition and the accompanying documents comply with the established requirements.

Dean of the Medical Faculty for International Students of the educational institution «Belarusian State Medical University»

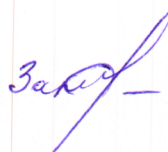
26.06.2023



O.S.Ishutin

Methodologist of the educational institution «Belarusian State Medical University»

26.06.2023



S.V.Zaturanova