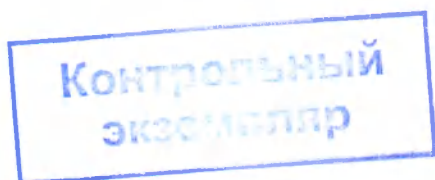


**MINISTRY OF HEALTH OF THE REPUBLIC OF BELARUS  
EDUCATIONAL INSTITUTION  
BELARUSIAN STATE MEDICAL UNIVERSITY**



**APPROVED**

by First Vice-Rector, Professor

S.V. Gubkin

*20.12.2016*

Reg. № УД- *h. 5472/1617* /уч.

**INFECTIOUS DISEASES**

**Curriculum of higher educational institution  
in the educational discipline for the specialty:**

**1-79 01 01 General Medicine**

Minsk, BSMU 2016

The curriculum is based on the standard educational program “Infectious diseases”, approved 31.08.2016, registration № ТД-Л. 577/тип.

**COMPOSED BY:**

I.A. Karpov, Ph.D., D.Sc., Professor;

D.V. Litvinchuk, Postgraduate;

I.O. Stoma, Ph.D., Assistant Professor;

**RECOMMENDED FOR APPROVAL:**

by the Department of Infectious Diseases of the Educational Institution “Belarusian State Medical University”

(protocol № 4 of 08.11.2016);

by the Methodological Commission of The Faculty of Preventive Medicine of the Educational Institution “Belarusian State Medical University”

(protocol № 3 of 01.12.2016);

## EXPLANATORY NOTE

Infectious Diseases is an academic discipline that contains the systematized scientific data and methodology concerning etiology, pathogenesis, clinical features, diagnostics and prevention of infectious diseases.

The Curriculum of the discipline includes the newest scientific data on the causes, classification, clinical features, mechanisms of pathogenesis, diagnostics, differential diagnosis, prevention, treatment of common infectious diseases, which is crucial especially for medical students. Infectious diseases remain frequent causes of morbidity and mortality in many countries. It is also important to understand the significant changes in clinical manifestations of numerous infectious diseases, the discovery of new pharmacological substances and diagnostic methods, new ways of prevention of infectious diseases. It is very important for new doctors to train the practical skills of clinical work with a patient having a suspected infection. The mentioned changes in well-known infectious diseases and the spread of new infectious diseases make it necessary to combine the knowledge and skills previously learned at such disciplines as General Chemistry, Microbiology, Virology, Immunology, Pathological Physiology, Pharmacology, Internal Diseases, Surgery.

**The purpose of teaching and studying** of Infectious Diseases is to provide high-quality teaching and support of the educational process, which contributes to the training of highly qualified specialists possessing the up-to-date knowledge, creative abilities and comprehensive skills in the area of infectious diseases.

**The tasks** of Infectious Diseases tuition are composed to provide a fundamentally new approach to the educational process based on the integrity of teaching and substantial student independent work in the discipline, which is an important area of strategic innovations in education. Aims include the acquiring of skills and knowledge in the areas of:

- main definitions in modern infectology;
- causes and mechanisms of development and spread of infectious diseases;
- clinical features, diagnostics, differential diagnosis, and treatment of most important infectious diseases;
- factors that contribute to the actual condition of infectious diseases.
- the main principles of treatment for infectious diseases

**The tasks of teaching** the Infectious Diseases discipline include the establishment of students' social, personal and professional competencies based on the knowledge and application of:

- modern aspects of the etiology, epidemiology of infectious diseases;
- questions of the pathogenesis of infectious diseases;
- clinical features of infectious diseases and their complications;
- minimal number of clinical, laboratory and instrumental diagnostic work-up methods for infectious diseases;
- main principles of treatment for infectious diseases.

The successful studying of Infectious Diseases requires skills and knowledge previously acquired at:

*General Chemistry.* Blood electrolytes. The blood buffer systems. Acid-base homeostasis.

*Microbiology, virology, immunology.* Classification of microorganisms. Methods of cultivation and identification. Immunity, its characteristics during infectious diseases.

*Pathological physiology.* Changes in physiological processes during an infection.

*Pharmacology.* Classification of drugs, mechanisms of action, drug interactions, indications and contraindications for anti-infective drugs.

*Internal Diseases.* Differential diagnosis between therapeutic and infectious diseases.

*Surgery.* Differential diagnosis between surgical and infectious diseases.

**As a result of studying** the Infectious Diseases discipline student shall know:

- basic terms and definitions in Infectious Diseases;
- the classification, causes, pathogenesis, clinical features, diagnostics, differential diagnosis of the most important infectious diseases;
- diagnostics, urgent medical help and treatment strategies in critically ill patients;
- physicians' strategy and methods of urgent medical help in extremely dangerous, epidemic infections;

**The student shall be able to:**

- communicate with a patient taking into consideration his or her psychosocial characteristics and reaction to illness;
- perform the medical examination of patient with infectious disease (visual examination, palpation, percussion, auscultation);
- carry out the differential diagnosis of infectious and non-infectious diseases along with the differential diagnosis of infectious diseases;
- determine the indications for additional diagnostic methods and discuss the gained data;
- discuss the clinical diagnosis according to other specialists' consultations;
- organize sampling of contaminated specimens from patient with infectious disease;
- provide medical help to patients with the most common infectious diseases;
- provide urgent medical help to patients with extremely dangerous, epidemic infections;

**The student shall master:**

- the assessment skills of disease severity in patients with infections;
- assessing rash characteristics;
- principles of urgent medical help in case of hypovolemic shock, including the calculation of rehydration fluids.

**The structure of the curriculum** in the educational discipline Infectious Diseases is based on 16 topics that include questions on general and specific infectology.

A total number of hours for the study of the discipline is 180 academic hours. Hours of class work according to the types of studies: lectures – 22 hours, practical seminars – 71 hours, self-study – 87 hours.

Ongoing assessment is carried out according to the syllabus of the specialty in the form of credit (8th semester), and examination (9th semester).

The Form of higher education is full-time.

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

| Code, name of the specialty    | Semester | Number of study hours |                |           |                    |                           | Form of ongoing assessment |
|--------------------------------|----------|-----------------------|----------------|-----------|--------------------|---------------------------|----------------------------|
|                                |          | Total                 | Classroom work | including |                    | out-of-class self-studies |                            |
|                                |          |                       |                | Lectures  | Practical seminars |                           |                            |
| 1-79 01 01<br>General Medicine | 8        | 74                    | 47             | 12        | 35                 | 28                        | credit                     |
|                                | 9        | 106                   | 46             | 10        | 36                 | 60                        | examination                |
| Total                          |          | 180                   | 93             | 22        | 71                 | 87                        |                            |

## THEMATIC PLAN

| Section (topic) name   | Number of class hours |           |
|--|-----------------------|-----------|
|  | lectures              | practical |
| 1. General questions of infectology                                | 2                     | 2         |
| 2. Diarrheal diseases  | 2                     | 10        |
| 3. Infectious diseases of central nervous system                   | 2                     | 10        |
| 4. Viral hepatitis   | 2                     | 10        |
| 5. Acute respiratory viral infections                              | 2                     | 4         |
| 6. Vector-borne infectious diseases                                | 2                     | 5         |
| 7. Extremely dangerous infections                                  | 2                     | -         |
| 8. Other zoonoses  | -                     | 4         |
| 9. Sepsis  | 2                     | 3         |
| 10. Skin infections  | -                     | 1         |
| 11. Exotoxicoeses  | -                     | 4         |
| 12. Herpes Virus Infections  | 2                     | 5         |
| 13. Respiratory tract infections caused by intracellular pathogens | -                     | 1         |
| 14. HIV infection  | 2                     | 10        |
| 15. Helminthiases  | -                     | 2         |
| 16. Healthcare-associated infections                               | 2                     | -         |
| <b>Total hours</b>   | <b>22</b>             | <b>71</b> |

## CONTENT OF THE EDUCATIONAL MATERIAL

### 1. General questions of infectology

General characteristics of infectious diseases. Basics of diagnostics, treatment, and prevention of infectious diseases.

The structure of infectious disease hospital, anti-epidemic measures. Contagious isolation ward, semi-isolation ward, non-contagious hospital ward. Indications for hospitalization in a hospital for infectious diseases.

Acutely developed hyperpyretic fever: main causes, strategy on an out-patient level of medical help.

Fever of unknown origin: definition, main causes. Basics of diagnostic workout in patients with fever.

Curation of the patient with fever: registering of patient's complaints and anamnesis; medical examination, formulation of a work-up plan, interpretation of results of the laboratory and instrumental tests. Treatment plan in patients with fever according to the causative factors.

### 2. Diarrheal diseases

Pathogenetic types of infectious diarrheas: key microorganisms, mechanisms of development, clinical features.

Principles of etiotropic therapy of intestinal infections and invasions. Rehydration therapy: definition, types, principles. Pathogenetic therapy of diarrheal diseases. Probiotics: definition, role in prevention and treatment of intestinal infections and invasions.

Typhoid fever and non-typhoid salmonellosis. Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Shigellosis. Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Food poisoning (Food-borne disease). Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Cholera. Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention. Urgent medical help in patients with hypovolemic shock.

Escherichiosis. Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Yersiniosis. Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

C.difficile-associated infection. Etiology. Epidemiology. Pathogenesis. Clinical importance in antibiotic-associated diarrheas. Clinical forms. Diagnostics. Differential diagnosis. Treatment. Prevention.

#### Viral intestinal infections

Rotavirus and norovirus infections. Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

#### Intestinal protozoal diseases

Amebiasis. Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Curation of the patients with non-typhoid salmonellosis, rotavirus infection, norovirus infection, escherichiosis, yersiniosis, food poisoning, shigellosis: registering of patient's complaints and anamnesis; medical examination, formulation of a work-up plan, interpretation of results of the laboratory and instrumental tests; stool analysis test results interpretation in acute diarrheal diseases. Plan of diagnostic work-up and treatment in a patient with acute diarrhea. Plan of epidemiological work in case of an outbreak. A sampling of stool specimens for bacteriological analysis. Writing of clinical case history.

### **3. Infectious diseases of central nervous system**

Viral infections of central nervous system

Rabies. Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Prevention.

Enterovirus infection. Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Bacterial infections of central nervous system

Meningococcal infection. Etiology. Epidemiology. Pathogenesis. Classification. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Differential diagnosis of infectious diseases of central nervous system.

Main clinical signs and symptoms of central nervous system diseases (meningitis, encephalitis, cerebral oedema): causes, clinical features, diagnostics, principles of differential diagnostics.

Interpretation of cerebrospinal fluid analysis. Differential diagnosis between meningism, viral meningitis, bacterial meningitis, tuberculous meningitis, subarachnoidal hemorrhage, and traumatic lumbar puncture.

Curation of the patients with infections of central nervous system (viral and bacterial): registering of patient's complaints and anamnesis; medical examination, formulation of a work-up plan, interpretation of results of the laboratory and instrumental tests; interpretation of the cerebrospinal fluid analysis. Formulation of diagnosis. Plan of treatment of a patient with infection of central nervous system. Urgent medical help on out-patient and in-patient stages for patients with meningococemia, meningitis. Plan of epidemiological work in case of an outbreak. A sampling of specimens for bacteriological analysis. Writing of clinical case history.

### **4. Viral hepatitis**

Enteric viral hepatitis

Acute viral hepatitis A, E. Etiology. Epidemiology. Pathogenesis. Modern classification. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Parenteral viral hepatitis

Acute viral hepatitis B, B+D, C. Etiology. Epidemiology. Pathogenesis. Modern classification. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Chronic viral hepatitis B, B+D, C. Etiology. Epidemiology. Pathogenesis. Modern classification. Clinical manifestations. Diagnostics. Differential diagnosis. Possibilities of etiotropic treatment. Prevention.



Complications and outcomes in patients with chronic viral hepatitis  
Acute and chronic liver failure. Definition. Etiology and pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Cirrhosis of the liver. Etiology. Epidemiology. Pathogenesis. Modern classification. Clinical manifestations. Diagnostics. Differential diagnosis. Complications. Treatment. Prevention.

Hepatocellular carcinoma. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment principles.

Curation of the patients with enteric and viral hepatitis: registering of patient's complaints and anamnesis; medical examination, formulation of a work-up plan, interpretation of results of the laboratory and instrumental tests; evaluation of serum markers of viral hepatitis. Formulation of diagnosis. Plan of treatment of a patient with enteric and parenteral hepatitis. Urgent medical help in case of hepatic encephalopathy, hepatic coma. Plan of epidemiological work in case of an outbreak. Writing of clinical case history.

### **5. Acute respiratory viral infections**

Flu (influenza). Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Parainfluenza. Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Adenovirus infection. Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Respiratory syncytial virus infection. Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Rhinovirus infection. Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Curation of the patients with an acute respiratory viral infection (common cold): registering of patient's complaints and anamnesis; medical examination, formulation of a work-up plan, interpretation of results of the laboratory and instrumental tests; diagnosis formulation. Plan of the treatment in patients with common cold. Flu vaccination – indications and contraindications. Writing of clinical case history.

### **6. Vector-borne disease**

Rickettsiosis. Definition. Classification, key clinical features, laboratory diagnostics, principles of etiotropic treatment. Epidemic typhus and Brill–Zinsser disease. Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Malaria. Etiology. Epidemiology. Pathogenesis. Modern classification. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Tick-borne encephalitis. Etiology. Epidemiology. Pathogenesis. Modern classification. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Lyme disease. Etiology. Epidemiology. Pathogenesis. Modern classification. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Other tick-borne infectious diseases (granulocytic anaplasmosis, tick-borne borreliosis due to *B. miyamotoi*). Etiology. Epidemiology. Pathogenesis. Modern classification. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment.

Curation of the patients with vector-borne infectious diseases: registering of patient's complaints and anamnesis; medical examination, formulation of a work-up plan, interpretation of results of the laboratory and instrumental tests; diagnosis formulation. Plan of the treatment in patients with vector-borne infections. Plan of epidemiological work in case of an outbreak. Writing of clinical case history.

### **7. Extremely dangerous infections**

Plague. Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Anthrax. Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Plan of diagnostic work-up and treatment in patients with plague and anthrax. Plan of anti-epidemic measures in case of the outbreak.

### **8. Other zoonoses**

Tularemia. Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Leptospirosis. Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Viral hemorrhagic fevers. Definition. Classification.

Hemorrhagic fever with renal syndrome (HFRS). Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Ebola virus disease. Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Brucellosis. Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Listeriosis. Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Curation of the patients with leptospirosis, tularemia, HFRS, listeriosis: registering of patient's complaints and anamnesis; medical examination, formulation of a work-up plan, interpretation of results of the laboratory and instrumental tests; diagnosis formulation. Plan of the treatment in patients with leptospirosis, tularemia, HFRS, listeriosis. Urgent medical help in case of complications due to leptospirosis, tularemia, HFRS, listeriosis. Plan of epidemiological work in case of an outbreak. Writing of clinical case history.

### **9. Sepsis**

Sepsis. Modern classification. Clinical manifestations. Diagnostics. Principles of etiotropic therapy. Treatment approach in patients with severe sepsis or septic shock, urgent care.

Curation of the patients with sepsis: registering of patient's complaints and anamnesis; medical examination, formulation of a work-up plan, interpretation of results of the laboratory and instrumental tests; diagnosis formulation. Plan of the treatment in patients with sepsis. Urgent medical help in case of severe sepsis or

septic shock. Plan of epidemiological work in case of an outbreak. Writing of clinical case history.

### **10. Skin infections**

A skin infection caused by group A  $\beta$ -hemolytic streptococcus (Erysipelas). Etiology. Epidemiology. Pathogenesis. Classification. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Plan of diagnostic work-up and treatment of patients with skin infection caused by group A  $\beta$ -hemolytic streptococcus.

### **11. Exotoxicooses**

Botulism. Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Tetanus. Etiology. Epidemiology. Pathogenesis. Modern classification. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Diphtheria infection. Etiology. Epidemiology. Pathogenesis. Modern classification. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Curation of the patients with botulism, tetanus, diphtheria infection: registering of patient's complaints and anamnesis; medical examination, formulation of a work-up plan, interpretation of results of the laboratory and instrumental tests; diagnosis formulation. Plan of the treatment in patients with botulism, tetanus, and diphtheria infection. Principles of the use of botulism polyvalent antitoxin. Writing of clinical case history.

### **12. Herpes Virus Infections**

Classification of infections caused by Human Herpes Viruses.

Herpes Simplex Type 1 and Type 2 infection. Etiology. Epidemiology. Pathogenesis. Clinical classification. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Herpes Zoster infection. Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Epstein - Barr virus (EBV) infection. Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Cytomegalovirus (CMV) infection. Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Curation of the patients with infections caused by Human Herpes Viruses: registering of patient's complaints and anamnesis; medical examination, formulation of a work-up plan, interpretation of results of the laboratory and instrumental tests; interpretation of haemograms; diagnosis formulation. Plan of the treatment in patients with infections caused by Human Herpes Viruses. Plan of epidemiological work in case of an outbreak. Writing of clinical case history.

### **13. Respiratory tract infections caused by intracellular pathogens**

Respiratory chlamydial infection (*Chlamydomphila pneumoniae*, *Chlamydia psittaci*). Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Respiratory mycoplasmosis. Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Legionellosis. Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Plan of diagnostic work-up and treatment of patients with respiratory tract infections caused by intracellular pathogens

#### **14. HIV infection**

HIV infection. Etiology. Epidemiology. WHO clinical classification. CDC classification. Pathogenesis. Clinical manifestations. Diagnostics and verification of diagnosis. Indications for highly active antiretroviral therapy. Basics of HIV antiviral treatment. Types HIV prevention: primary, post exposure, mother-to-child transmission.

Opportunistic infections and HIV-associated diseases. Definition. Pneumocystis pneumonia. Toxoplasmic encephalitis. Cryptococcal meningitis. Clinical manifestations. Approach considerations.

Retrospective analysis of clinical cases of patients with HIV infection.

#### **15. Helminthiases**

Enterobiasis. Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Ascariasis. Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Echinococcosis and alveococcosis. Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Trichinellosis. Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Cysticercosis. Etiology. Epidemiology. Pathogenesis. Clinical manifestations. Diagnostics. Differential diagnosis. Treatment. Prevention.

Plan of diagnostic work-up and treatment in patients with helminthiases.

Retrospective analysis of clinical cases of patients with helminthiases.

#### **16. Healthcare-associated infections**

Definition of healthcare-associated infections, key pathogens, the most common localizations, laboratory diagnostics, modern etiotropic therapy

Infectious control in modern hospital: definition, organization principles.

**EDUCATIONAL DISCIPLINE CURRICULAR CHART**  
**“INFECTIOUS DISEASES”**

| Section, topic number          | Section (topic) name   | number of hours |           | Self-studies | Form of control   |
|--------------------------------|--|-----------------|-----------|--------------|---|
|                                |  | lectures        | practical |              |   |
| <b>8<sup>th</sup> semester</b> |  |                 |           |              |   |
| 1.                             | General questions of infectology                               | 2               | 2         | 5            | Interviews. Electronic tests. Electronic situational tasks.                           |
| 2.                             | Diarrheal diseases   | 2               | 10        | 5            | Interviews. Oral reports. Situational tasks.  |
| 3.                             | Infectious diseases of central nervous system                  | 2               | -         | -            | Interviews. Oral reports. Essays.   |
| 4.                             | Viral hepatitis  | 2               | 10        | 10           | Interviews. Oral reports. Situational tasks.  |
| 5.                             | Acute respiratory viral diseases.                              | 2               | 4         | 5            | Interviews. Oral reports. Essays.   |
| 6.                             | Vector-borne infectious diseases                               | 2               | 5         | 7            | Interviews. Situational tasks.  |
| 10.                            | Skin infections  | -               | 1         | 5            | Interviews. Oral reports. Situational tasks.  |
| 13.                            | Respiratory tract infections caused by intracellular pathogens | -               | 1         |              | Interviews. Oral reports. Essays. Projects with oral defense. Tests. Credits.         |
| 15.                            | Helminthiases  | -               | 2         | 5            | Interviews. Oral reports. Situational tasks.  |
|                                | Total hours per semester:                                      | 12              | 35        | 42           |   |
| <b>9<sup>th</sup> semester</b> |  |                 |           |              |   |
| 3.                             | Infectious diseases of central nervous system                  | -               | 10        | 5            | Interviews. Electronic tests. Oral reports. Situational tasks. Clinical case history. |
| 7.                             | Extremely dangerous infections                                 | 2               | -         | 5            | Interviews. Oral reports. Situational tasks.  |
| 8.                             | Other zoonoses   | -               | 4         | 5            | Interviews. Oral reports. Situational tasks.  |
| 9.                             | Sepsis   | 2               | 3         | 5            | Interviews. Oral reports. Situational tasks.  |
| 11.                            | Exotoxicoes  | -               | 4         | 5            | Interviews. Oral reports. Situational tasks.  |

|     |                                  |           |           |           |   |
|-----|----------------------------------|-----------|-----------|-----------|---|
| 12. | Herpes Virus Infections          | 2         | 5         | 5         | Interviews. Oral reports.<br>Situational tasks.   |
| 14. | HIV infection                    | 2         | 10        | 10        | Interviews. Oral reports.<br>Situational tasks.   |
| 16. | Healthcare-associated infections | 2         | -         | 5         | Interviews. Electronic situational tasks. Electronic tests. Clinical case history. Examination. |
|     | Total hours per semester:        | <b>10</b> | <b>36</b> | <b>45</b> |   |
|     | <b>Total hours:</b>              | <b>22</b> | <b>71</b> | <b>87</b> |   |

## INFORMATION AND INSTRUCTIONAL UNIT LITERATURE

### **Basic (relevant):**

1. Electronic Education and Methodological complex of Infectious Diseases for foreign students (University Intranet site for students).
2. Infectious diseases: tutorial / I.A. Karpov, Yu.L. Gorbich, N.V. Solovey, D.E. Danilov, A.I. Vasilenko, I.O. Stoma. – Minsk: BSMU, 2015. – 188 p.

### **Additional:**

3. Mandell, Douglas, and Bennett's Principles and Practice Of Infectious Diseases / ed. by J.E. Bennett, R. Dolin, M.J. Blaser — 8th ed. – Elsevier, 2015. – 4909 p.
4. Infectious Diseases: A Clinical Short Course / F. Southwick. – McGraw-Hill, 2013. – 480 p.
5. HIV 2015/2016 / M.Altfeld [et al.]; edited by C.Hoffmann, J.K.Rockstroh. – Hamburg: Medizin Fokus Verlag, 2015. – 776 p.

## LIST OF AVAILABLE DIAGNOSTIC TOOLS

The following forms are used for assessment of competencies:

1. Oral form:
  - interviews;
  - oral reports;
  - credits.
2. Written form:
  - tests;
  - control questions;
  - situational tasks;
  - clinical case history;
  - essays.
3. Oral-written form:
  - examination;
  - projects with oral defense.
4. Technical form:
  - electronic tests;
  - electronic situational tasks.

### LIST OF LECTURES

| N                              | Lecture topic                                 | Amount of hours |
|--------------------------------|---|-----------------|
| <b>8<sup>th</sup> semester</b> |   |                 |
| 1                              | General questions of infectology              | 2 hours         |
| 2                              | Diarrheal diseases                            | 2 hours         |
| 3                              | Infectious diseases of central nervous system | 2 hours         |
| 4                              | Viral hepatitis                               | 2 hours         |
| 5                              | Acute respiratory viral infections            | 2 hours         |
| 6                              | Vector-borne infectious diseases              | 2 hours         |
| <b>9<sup>th</sup> semester</b> |   |                 |
| 7                              | Extremely dangerous infections                | 2 hours         |
| 8                              | Sepsis  | 2 hours         |
| 9                              | Herpes Virus Infections                       | 2 hours         |
| 10                             | HIV infection                                 | 2 hours         |
| 11                             | Healthcare-associated infections              | 2 hours         |

### LIST OF LABORATORY (*PRACTICAL*) SEMINARS

| N                              | Topic of practical seminar  | Amount of hours |
|--------------------------------|---|-----------------|
| <b>8<sup>th</sup> semester</b> |   |                 |
| 1                              | General questions of infectology. Fever of unknown origin. Skin infections. Helminthiases.  | 5 hours         |
| 2                              | Pathogenetic types of infectious diarrheas. Principles of etiotropic therapy of intestinal infections and invasions. Typhoid fever and non-typhoid salmonellosis. Shigellosis. Cholera. Food poisoning. | 5 hours         |
| 3                              | Escherichiosis. Yersiniosis. C. difficile-associated infection. Viral intestinal infections. Amebiasis.   | 5 hours         |
| 4                              | Acute and chronic viral hepatitides.  | 5 hours         |
| 5                              | Viral hepatitis. Complications and outcomes in patients with chronic viral hepatitides: acute   | 5 hours         |



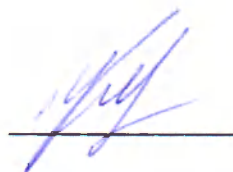
|                     |  |         |
|---------------------|--|---------|
|                     | and chronic liver failure, cirrhosis of the liver, hepatocellular carcinoma.   |         |
| 6                   | Rickettsiosis. Epidemic typhus and Brill-Zinsser disease. Malaria. Tick-borne encephalitis. Lyme disease. Other tick-borne infectious diseases (granulocytic anaplasmosis, tick-borne borreliosis due to <i>B. miyamotoi</i> ).  | 5 hours |
| 7                   | Acute respiratory viral infections: Flu (influenza), parainfluenza, adenovirus infection, respiratory syncytial virus infection, rhinovirus infection. Etiotropic and nosotropic treatment of influenza. Complications of influenza. Respiratory chlamydial infection. Respiratory mycoplasmosis. Legionellosis. | 5 hours |
| <b>9th semester</b> |  |         |
| 8                   | Main clinical signs and symptoms of central nervous system diseases. Interpretation of cerebrospinal fluid analysis. Meningococcal infection.  | 6 hour  |
| 9                   | Rabies. Enterovirus infection. Tularemia. Brucellosis.   | 6 hours |
| 10                  | Sepsis. Septic shock. Leptospirosis. Hemorrhagic fever with renal syndrome (HFRS). Ebola virus disease. Listeriosis. Diphtheria infection.   | 6 hours |
| 11                  | HIV infection  | 6 hours |
| 12                  | Opportunistic infections and HIV-associated diseases. Definition. Pneumocystis pneumonia. Toxoplasmic encephalitis. Cryptococcal meningitis. Epstein - Barr virus (EBV) infection. Cytomegalovirus (CMV) infection.  | 6 hour  |
| 13                  | Herpes Simplex Type 1 and Type 2 infection. Herpes Zoster infection. Tetanus. Botulism.  | 6 hours |

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

| Title of the discipline requiring approval | Department                         | Amendments to the curriculum of the academic discipline | Decision of the department, which designed the curriculum (date, protocol number) |
|--|------------------------------------|---|---|
| Microbiology, virology, immunology         | Microbiology, virology, immunology | No amendments made                                      | Approved: protocol № 4 of 09.11.2016  |
| Pathological physiology                    | Pathological physiology            | No amendments made                                      | Approved: protocol № 4 of 09.11.2016  |
| Pharmacology                               | Pharmacology                       | No amendments made                                      | Approved: protocol № 4 of 09.11.2016  |
| Pediatrics                                 | Pediatrics                         | No amendments made                                      | Approved: protocol № 4 of 09.11.2016  |

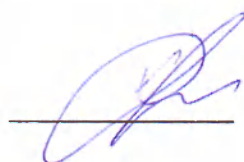
**AUTHORS:**

Head of the Infectious Diseases  
Department of the Educational  
Institution "Belarusian State Medical  
University", Ph.D., D.Sc., Professor



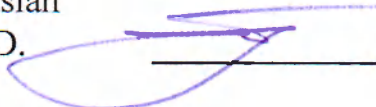
I.A. Karpov

Postgraduate of the Infectious Diseases  
Department of the Educational  
Institution "Belarusian State Medical  
University."



D.V. Litvinchuk

Assistant Professor of the Infectious  
Diseases Department of the  
Educational Institution "Belarusian  
State Medical University", Ph.D.

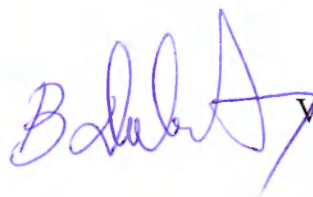


I.O. Stoma

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

Dean of the Medical Faculty of  
International Students

20.12 2016



V.V. Davidov

Methodologist of Educational  
Institution  
"Belarusian State Medical  
University"

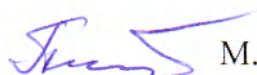
20.12 2016



S.A. Kharitonova




Head of the Foreign Languages  
Department

20.12 2016



M.N. Petrova

### Information about the authors (compilers) of the curriculum

|  |            |  |
|--|------------|--|
| Name   |            | I.A. Karpov  |
| Position,<br>degree, title   | scientific | Head of the Infectious Diseases Department of the Educational Institution "Belarusian State Medical University", Ph.D., D.Sc., Professor |
|  work   |            | (017) 334 95 64  |
| <i>E-mail:</i>   |            | igorkarpov57@mail.ru   |
| Name   |            | D.V. Litvinchuk  |
| Position,<br>degree, title   | scientific | Postgraduate of the Infectious Diseases Department of the Educational Institution "Belarusian State Medical University."                 |
|  work   |            | (017) 334 95 64  |
| <i>E-mail:</i>   |            | dmitry.litvinchuk@gmail.com  |
| Name   |            | I.O. Stoma   |
| Position,<br>degree, title   | scientific | Assistant Professor of the Infectious Diseases Department of the Educational Institution "Belarusian State Medical University", Ph.D.    |
|  work |            | (017) 334 95 64  |
| <i>E-mail:</i>   |            | igor.stoma@gmail.com   |