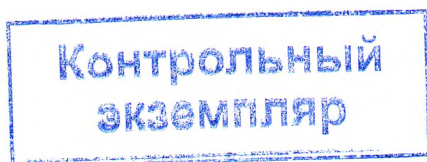


MINISTRY OF HEALTH OF THE REPUBLIC OF BELARUS
Educational Institution
«BELARUSIAN STATE MEDICAL UNIVERSITY»



APPROVED

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

S.P.Rubnikovich

25.06.2026

Reg. # UD: 09/11-01-78/2627/edu. sub.

PEDIATRIC INFECTIOUS DISEASES

**Curriculum of the Educational Institution in the Academic Discipline for the
Specialty 1-79 01 01 «General Medicine»**

Sub-Residency «General Medical Practice»

Curriculum is based on the educational program «Pediatric Infectious Diseases», approved 25.06.2026, registration # УД-0911-01-56/2627/уч.цyb.; on the educational plan in the specialty 1-79 01 01 «General Medicine», approved 15.04.2026, registration # 7-07-0911-01/2627/mf.

COMPILERS:

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RECOMMENDED FOR APPROVAL:

by the Department of Pediatric Infectious Diseases with advanced training and retraining courses of the Educational Institution «Belarusian State Medical University» (protocol # 13 of 27.05.2026);

by the Scientific and Methodological Council of the Educational Institution «Belarusian State Medical University» (protocol # 10 of 25.06.2026)

EXPLANATORY NOTE

The aim of the academic discipline is the development of specialized competencies to provide primary medical care in outpatient settings for infectious diseases in children and adolescents and to organize sanitary and anti-epidemic measures for infectious diseases.

The objectives of the academic discipline «Pediatric Infectious Diseases» are to develop students' scientific knowledge regarding the epidemiology, etiology, pathogenesis, clinical symptoms, diagnostic methods, principles of treatment and medical prevention of infectious diseases in children and adolescents, as well as medical rehabilitation methods, skills and abilities necessary for:

- examining pediatric patients with infectious diseases;
- interpreting laboratory and instrumental diagnostic results;
- formulating a diagnosis;
- prescribing etiotropic, pathogenetic and symptomatic therapy for infectious diseases in children and adolescents;
- determining indications for hospitalization;
- implementing medical prevention of infectious diseases in children and adolescents;
- conducting clinical follow-up and medical rehabilitation of children and adolescents with infectious diseases;
- providing urgent and emergency medical care for life-threatening conditions resulting from an infectious disease;
- performing specific immunoprophylaxis (vaccination) of infectious diseases among the pediatric population.

Relations to other academic disciplines

Teaching and successful study of the academic discipline «Pediatric Infectious Diseases» of the sub-residency «General Medical Practice (for foreign citizens)» is based on the student's prior knowledge and skills acquired from the following academic disciplines: «Microbiology, Virology, Immunology», «Epidemiology», «Infectious Diseases», «Pediatric Infectious Diseases», «Pediatrics».

Studying the academic discipline «Pediatric Infectious Diseases» should ensure the formation of students' specialized competencies:

- apply knowledge of clinical symptoms, master patient examination, diagnostic and differential diagnostic methods and principles of treatment and prevention, as well as formulate a clinical diagnosis for dermatovenereological diseases, tuberculosis, major neurological diseases and infectious diseases;
- evaluate clinical symptoms, apply methods of examining a sick child, laboratory and differential diagnosis, formulate a clinical diagnosis and master the principles of treatment, prevention and medical rehabilitation for diseases in children and adolescents.

As a result of studying the discipline «Pediatric Infectious Diseases» the student should

know:

diagnostic methods for pediatric infectious diseases using a syndromic approach,

incorporating epidemiological and clinical-laboratory data;
 differential diagnostic methods to distinguish between infectious and non-infectious diseases in children based on the primary clinical syndrome;
 the clinical algorithm of actions upon detecting an infectious disease in a child (notification rules, indications for hospitalization, management principles and outbreak containment measures);
 methods for the rational treatment of infectious diseases in children and adolescents using modern, evidence-based therapies;
 modern protocols for providing emergency medical care to pediatric patients with severe or complicated courses of infectious diseases;
 principles and methods of general prevention and specific immunoprophylaxis of infectious diseases among the pediatric population;
 the rules of medical ethics and professional deontology;

be able to:

identify the primary clinical syndrome, determine diagnostic investigation strategies and establish a diagnosis for the most common and socially significant infectious diseases in children and adolescents;
 perform differential diagnosis between infectious and non-infectious diseases in children and adolescents based on the presenting syndrome;
 organize sanitary and anti-epidemic measures within an infectious disease outbreak focus;
 prescribe appropriate treatment regimens to pediatric patients with infectious diseases and carry out dynamic monitoring of convalescents;

master:

techniques for medical history taking, with a specific focus on gathering a comprehensive epidemiological history;
 techniques for the physical examination of pediatric patients across different age groups;
 methods for interpreting diagnostic results, including laboratory, functional and imaging studies (ultrasound, computed tomography, magnetic resonance imaging, etc.);
 methods for providing urgent and emergency medical care for life-threatening conditions resulting from an infectious disease.

Organization of the educational process

Practical classes are conducted on-site within the infectious disease departments of hospital healthcare organizations. Practical training is achieved through students solving clinical case scenarios, completing test tasks and practicing clinical skills in patient examination, diagnosis and differential disease diagnosis.

Total number of hours for the study of the academic discipline is 54 academic hours, of which 35 classroom hours and 19 hours of student independent work. Classroom hours according to the types of studies: practical classes – 35 hours.

Form of higher education – full-time.

Intermediate assessment is carried out in accordance with the specialty curriculum for the academic disciplines «Pediatric Infectious Diseases» and «Infectious Diseases» within sub-residency «General Medical Practice» in the form of a credit (11th semester).

THEMATIC PLAN

Section (topic) name	Number of class hours
	practical
1. Infectious diseases of the respiratory system in children	7
2. Infectious diseases in children presenting with exanthema syndrome	7
3. Infectious diseases of the central nervous system in children	7
4. Acute intestinal infections and parasitic infestations in children	7
5. Herpesvirus infections in children. Congenital infections	7
Total hours	35

CONTENT OF THE ACADEMIC DISCIPLINE

1. Infectious diseases of the respiratory system in children

Relevance of acute respiratory infections (ARI) in children. Core infectious diseases presenting with respiratory syndrome, their clinical and differential diagnosis: coronavirus infection, influenza, parainfluenza, adenoviral infection, respiratory syncytial virus infection and rhinovirus infection. Clinical Protocol «Diagnosis and Treatment of Acute Respiratory Viral Infections (Pediatric Population)», approved by the Decree of the Ministry of Health of the Republic of Belarus dated 08.12.2023 No. 192.

Pertussis (whooping cough). Clinical Protocol «Diagnosis and Treatment of Pertussis (Pediatric Population)», approved by the Decree of the Ministry of Health of the Republic of Belarus dated 08.12.2023 No. 192.

Differential diagnosis of acute pneumonia in children (pneumococcal, mycoplasmal, chlamydial). Clinical Protocol «Diagnosis and Treatment of Atypical Pneumonia in Children», approved by the Decree of the Ministry of Health of the Republic of Belarus dated 29.04.2023 No. 65.

Differential diagnosis of tonsillitis in children (adenoviral infection, infectious mononucleosis, streptococcal tonsillitis, oropharyngeal diphtheria).

Clinical features of ARI in infants under one year of age and associated complications.

Indications for hospitalization and treatment principles for children with ARI and tonsillitis: etiotropic, pathogenetic and symptomatic therapy. Antiviral medicinal products. Indications for prescribing antibacterial medicinal products. Protocols for oral fluid therapy in children. Indications for prescribing antipyretic therapy. Dosing regimens when prescribing medicinal drugs. Ensuring epidemiological safety during medical care delivery.

Laryngeal stenosis: clinical classification and severity criteria. Differential diagnosis of croup syndrome based on etiology (ARI, diphtheria, epiglottitis, foreign body aspiration). Clinical manifestations of respiratory failure in the severe pediatric ARI. Grading systems for laryngeal stenosis and acute respiratory failure (ARF), diagnostic principles, differential diagnosis and emergency medical management

protocols.

Measures for specific immunoprophylaxis and non-specific medical prevention of ARI among the pediatric population.

Clinical examination of pediatric patients with ARI: history taking and complaints, conducting a physical examination, developing an investigation plan and interpreting the results of laboratory and instrumental diagnostic methods. Formulating a clinical diagnosis, developing a treatment plan, prescribing medicinal drugs and writing formal medical prescription.

2. Infectious diseases in children presenting with exanthema syndrome

Differential diagnostic signs of major infectious diseases in children accompanied by exanthema (scarlet fever, measles, rubella, enterovirus infection, parvovirus B19 infection, pseudotuberculosis, herpesvirus infections, meningococemia, hemorrhagic fevers). Features of the clinical course of infections in young children and vaccinated individuals. Differential diagnosis during different clinical phases of the disease.

Principles of etiotropic, pathogenetic and symptomatic therapy for infectious diseases presenting with exanthema syndrome in children and adolescents. Antiviral medicinal products. Indications for prescribing antibacterial medicinal products. Ensuring epidemiological safety during healthcare delivery.

Measures of specific immunoprophylaxis and non-specific medical prevention of infectious diseases presenting with exanthema syndrome among the pediatric population. Decree of the Ministry of Health of the Republic of Belarus «On Preventive Vaccinations», approved on 17.05.2018 No. 42.

Examination of pediatric patients with infectious diseases presenting with exanthema syndrome: taking history and complaints, conducting a physical examination, developing an investigation plan and interpreting the results of laboratory and instrumental diagnostic methods, formulating a diagnosis, developing a treatment plan, prescribing medicinal drugs, writing a medical prescription and adhering to dosing regimens when prescribing medicinal drugs.

3. Infectious diseases of the central nervous system in children

Age-dependent etiology of pediatric central nervous system (CNS) infections.

Purulent and non-purulent meningitis: major pathogens, early diagnosis, therapeutic and diagnostic management plans, indications for prescribing etiotropic therapy.

Meningococcal infection: epidemiological features, clinical classification, early diagnosis, therapeutic and diagnostic management strategies, indications for prescribing antibacterial medicinal products. Emergency medical care for meningococemia. Clinical Protocol «Provision of Emergency and Urgent Medical Care to Pediatric Patients», approved by the Decree of the Ministry of Health of the Republic of Belarus dated 17.08.2023 No. 118.

Encephalitis: major pathogens, diagnosis, treatment, indications for prescribing etiotropic therapy.

Examination of pediatric patients with CNS infections: taking history and complaints, conducting a physical examination, developing an investigation plan, interpreting the results of laboratory diagnostic methods (evaluation of cerebrospinal

fluid analysis and methods for detecting the pathogen in cerebrospinal fluid) and instrumental imaging studies (ultrasound, computed tomography, magnetic resonance imaging, etc.), formulating a diagnosis, developing a treatment plan, prescribing medicinal drugs and writing a medical prescription, completing medical documentation and prescribing medical rehabilitation measures.

4. Acute intestinal infections and parasitic infestations in children

Etiology and clinical-epidemiological features of acute intestinal infections (AII) in children of different age groups. Differential diagnosis of viral (rotavirus, norovirus infections) and bacterial (salmonellosis, shigellosis, escherichiosis, campylobacteriosis, yersiniosis) AII. Methods for the diagnosis and treatment of AII in children of different age groups. Indications for prescribing antibacterial medicinal products. Dosing regimens when prescribing medicinal drugs. Ensuring epidemiological safety during healthcare delivery.

Dehydration in children, clinical evaluation. Rehydration therapy. Pathogenesis, clinical manifestations and management of hypovolemic shock in children with AII.

Antibiotic-associated diarrhea. *Clostridioides difficile* associated infections: modern epidemiological features, clinical presentation, differential diagnosis and principles of treatment.

Parasitic infestations (nematodoses, trematodoses, amebiasis, giardiasis) in children: modern epidemiological aspects, pathogenetic mechanisms, clinical presentation, laboratory diagnostics and modern methods of treatment and medical prevention.

Examination of pediatric patients with AII: history taking and complaints, conducting a physical examination, developing an investigation plan and interpreting the results of laboratory and instrumental diagnostic methods, formulating a diagnosis, developing a treatment plan, prescribing medicinal drugs and writing formal medical prescription. Calculation of rehydration fluid requirements for the correction of dehydration.

5. Herpesvirus infections in children. Congenital infections

Classification of herpesviruses. Etiology, epidemiology, classification of diseases caused by herpesviruses and clinical presentation based on herpesvirus type (localized and generalized forms of herpes simplex virus type 1 and 2, varicella [chickenpox], herpes zoster [shingles], infectious mononucleosis, acquired and congenital cytomegalovirus infection, exanthema subitum [roseola infantum] and diseases caused by human herpesvirus types 7 and 8). Laboratory diagnostic methods and modern methods for treating herpesvirus infections in children. Antiviral medicinal products and their efficacy against different types of herpesviruses. Organization of sanitary and anti-epidemic measures in a varicella outbreak focus.

Etiology, pathogenesis and risk factors for the development of congenital infections in children. Differential diagnosis of various congenital infections included in the TORCH syndrome. Congenital parvovirus and HIV infection.

Clinical management strategies regarding the risk of congenital infection in a child. Principles of antenatal, intrapartum and postnatal prevention of congenital infections in children.

Clinical management of pediatric patients with herpetic stomatitis, infectious mononucleosis and varicella: taking history and complaints, conducting a physical examination, developing an investigation plan and interpreting the results of laboratory and instrumental examination methods, formulating a diagnosis, developing a treatment plan, completing medical documentation and prescribing medical rehabilitation measures.

EDUCATIONAL DISCIPLINE «PEDIATRIC INFECTIOUS DISEASES» CURRICULAR CHART OF THE SUB-RESIDENCY «GENERAL MEDICAL PRACTICE»

Section, topic #	Section (topic) name	Number of class hours	Literature	Practical Skill	Form of control	
		practical			of practical skills	of current / intermediate assessment
1.	Infectious diseases of the respiratory system in children	7	1, 3, 6, 9, 10-15	Calculation of medicinal drug doses for pediatric infectious pathology	Writing a medical prescription form	Oral questioning, writing a medical prescription form
2.	Infectious diseases in children presenting with exanthema syndrome	7	1, 4, 5, 8, 10-15	Evaluation of laboratory diagnostic results (bacteriological, serological, immunological, etc.)	Solving clinical case scenarios	Oral questioning, solving clinical case scenarios
3.	Infectious diseases of the central nervous system in children	7	1, 2, 5, 8, 10-15	Calculation of medicinal drug doses for the treatment of infectious pathology in children	Writing a medical prescription form*	Oral questioning, writing a medical prescription form; solving clinical case scenarios
4.	Acute intestinal infections and parasitic infestations in children	7	1, 10-15	Calculation of fluid requirements for rehydration therapy to correct dehydration	Solving clinical case scenarios	Oral questioning, writing a medical prescription form

5.	Herpesvirus infections in children. Congenital infections	7	1, 5, 10-15	Evaluation of laboratory diagnostic results (bacteriological, serological, immunological, etc.)	Solving clinical case scenarios	Oral questioning, solving clinical case scenarios, test*. Credit
	Total hours	35				

*This is a mandatory form of current certification

INFORMATION AND INSTRUCTIONAL UNIT**LITERATURE****Basic (relevant):**

1. Infectious diseases: textbook / Yu. Ya. Vengerov; edited by N. D. Yushchuk. – 3rd ed. – Moscow : GEOTAR-Media, 2024. – 464 p.

Additional:

2. Central nervous system infections in children / O. Romanovskaya, R. Mankevich. – Minsk : BSMU, 2025. – 52 p.

3. Croup syndrome in children : teaching aid / O. Romanovskaya, R. Mankevich. – Minsk : BSMU, 2022. – 32 p.

4. Differential diagnosis of infectious exanthems in children : teaching aid / R. Mankevich, O. Romanovskaya, O. Simachenko, A. Lastauka, K. Divakova. – Minsk : BSMU, 2023. – 48 p.

5. Herpes virus infections in children / O. Simachenko, E. Divakova. – Minsk : BSMU, 2025. – 52 p.

6. Influenza and other acute respiratory virus infection in children : teaching aid / K. Serhienka, I. Lastauka. – Minsk : BSMU, 2020. – 40 p.

7. Measles. Rubella. Scarlet fever : teaching aid / O. Romanovskaya, A. Lastauka, O. Simachenko, A. Astapau, R. Mankevich. – Minsk : BSMU, 2019. – 48 p.

8. Meningococcal infection in children : teaching aid / I. Lastauka, K. Serhienka. – Minsk : BSMU, 2020. – 38 p.

9. Pertussis. Mumps infection : teaching aid / O. Romanovskaya, I. Lastauka, R. Mankevich. – Minsk : BSMU, 2021. – 44 c.

10. Mandell, Douglas and Bennett's Principles and practice of infectious diseases. – 9th edition. – Edited by J. E. Bennett, R. Dolin, M. J. Blaser. – ELSEVIER, 2019. – 4176 p.

11. Nelson textbook of pediatrics.2-Volume Set. – 22nd edition. – Edited by R. M. Kliegman, J. W. St Geme III. – ELSEVIER, 2019. – 4264 p.

12. Principles and practice of pediatric infectious diseases. – 6th edition. – Edited by S. S. Long, C. G Prober, M. Fischer, D. Kimberlin. – ELSEVIER, 2022. – 2354 p.

13. Red Book. Pediatric infectious diseases clinical decision support chart. – 2nd edition. – Edited by D. W. Kimberlin. American Academy of Pediatrics, 2021. – 38 p.

14. Red Book. Atlas of Pediatric Infectious Diseases. – 5th edition. – Edited by Tina Q. Tan. – American Academy of Pediatrics, 2023. – 890 p.

Electronic courseware for the academic discipline «Pediatric infectious diseases»:

15. <https://etest.bsmu.by/course/view.php?id=716>.

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

The time allocated for independent work can be used by students for:
 preparing for practical classes;
 preparing for the pass/fail credit assessment in the academic discipline;
 developing thematic reports, academic abstracts and presentations.

LIST OF AVAILABLE DIAGNOSTIC TOOLS

The following forms of current certification are used to diagnose competencies:
 oral questioning;
 writing a medical prescription form;
 solving clinical case scenarios;
 tests.

LIST OF AVAILABLE TEACHING METHODS

Traditional method;
 active (interactive) methods:
 Problem-Based Learning (PBL);
 Case-Based Learning (CBL).

LIST OF PRACTICAL SKILLS

Name of Practical Skill	Practical Skill Control Form
1. Evaluation of laboratory diagnostic results (bacteriological, serological, immunological, etc.)	Solving clinical case scenarios
2. Calculation of medicinal drug doses for the treatment of pediatric infectious pathology	Writing a medical prescription form
3. Calculation of fluid requirements for rehydration therapy to correct dehydration	Solving clinical case scenarios

**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 #)
1. Microbiology, Virology and Immunology	Microbiology, Virology and Immunology	No comments or proposals	To be used in the educational process (protocol # 13 of 27.05.2026)
2. Epidemiology	Epidemiology	No comments or proposals	To be used in the educational process (protocol # 13 of 27.05.2026)
3. Infectious Diseases	Infectious Diseases with Advanced Training and Retraining Courses	No comments or proposals	To be used in the educational process (protocol # 13 of 27.05.2026)
4. Pediatrics	1 st Department of Childhood Diseases; 2 nd Department of Childhood Diseases	No comments or proposals	To be used in the educational process (protocol # 13 of 27.05.2026)

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E.V. Divakova

The formatting of the educational program and supporting documents complies with the established requirements.

Head of the Educational Activities Directorate of the educational institution «Belarusian State Medical University»

24.06. 2026



I.L. Kotovich

Methodologist of the Educational and Methodological Department of the Educational Activities Directorate of the educational institution «Belarusian State Medical University»

24.06. 2026



S.V. Zaturanova