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FACULTY OF MEDICINE

STUDY PROGRAM 0912.1 MEDICINE

DEPARTMENT OF INFECTIOUS DISEASES

APPROVED

at the meeting of the Commission for Quality Assurance and Evaluation of the Curriculum in Medicine/Pharmacy/ Dentistry

Minutes No. 1 of 16.0931

Chairman MD, PhD, Associate Professor

Serghei Suman

(signature)

APPROVED

at the Council meeting of the Faculty

Minutes No. 1 of 21. 09. 21

Dean of Faculty, MD, PhD, Associate

Professor

Gheorghe Plăcintă

(signature)

APPROVED

at the meeting of the chair Infectious diseases Minutes No.2 of 15.09.2021

Head of chair, MD, PhD, Associate Professor

Gheorghe Plăcintă

(signature)

SYLLABUS

INFECTIOUS DISEASES IN CHILDREN

Integrated studies/ Cycle I, License

Type of course: Compulsory discipline

Curriculum developed by the team of authors:

Plăcintă Gheorghe, PhD, associate professor Alexeev Tatiana, dr. of med., associate professor Serbenco Ludmila, dr. of med., associate professor Juravliov Tatiana, university assistant



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INTRODUCTION

• General presentation of the discipline: place and role of the discipline in the formation of the specific competences of the professional / specialty training program

Infectious Diseases in Children is one of the disciplines in the academic training of the beneficiaries which will allow the perfect knowledge of infectious diseases in children, regardless of the specialty they will choose later, with a field of integration and implementation of fundamental knowledge (pathophysiology, microbiology, molecular biology, pediatrics, epidemiology, pharmacology, etc.) in clinical practice. This discipline studies the etiology, pathogenesis, clinical manifestations, evolution, treatment and prophylaxis of infectious diseases in children as well as age peculiarities.

The student acquires practical skills in examining and investigating the patient with infectious diseases, in estimating the results, in early diagnosis of infectious diseases, emergency medical assistance and treatment of the sick child according to the age and severity of the disease.

Mission of the curriculum (aim) in professional training

To provide students with knowledge about the pathogenic agents - human organism conflict, particularities of reactivation of the macro-organism, cultivation of skills, habits in specific diagnostic opportunities and treatment, measures for the prevention of infectious diseases in children.

- Languages of the discipline: Romanian, Russian, English, French
- Beneficiaries: students of the 6th year, faculty of Faculty of Medicine.

II. MANAGEMENT OF THE DISCIPLINE

Code of discipline		S.12.O.100	
Name of the discipline		INFECTIOUS DISEASES IN CHILDREN	
Person(s) in charge of the discipline		MD, PhD, Associate Professor, Gheorghe Plăcintă	
Year VI		Semester/Semesters	XI
Total number of hours, including:			90
Lectures	20	Practical hours	20
Seminars	20	Self-training	30
Form of assessment	E	Number of credits	3



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III. TRAINING AIMS WITHIN THE DISCIPLINE

At the end of the discipline study the student will be able to:

• at the level of knowledge and understanding:

- ✓ Have knowledge in specifying the clinical picture, age peculiarities, evolution and complications of infectious diseases in children
- ✓ To achieve clinical thinking and the ability to analyze and systematize the results of clinical and laboratory examination in infectious diseases in children
- ✓ Have knowledge in early diagnosis of infectious diseases in children
- ✓ To know the consequences of infectious diseases in children
- ✓ To know the indications of hospitalization and the rules for the transport of patients with infectious disease in children
- ✓ Have knowledge in clinical symptoms and changes in cerebrospinal fluid in viral and bacterial meningitis
- ✓ To create the treatment plan for children with infectious diseases
- ✓ Have knowledge in diagnosis and treatment of infectious diseases at home (ARI, ADD, other infections) in accordance with Clinical Protocols and National Standards
- ✓ To know the diagnosis and treatment algorithm and the argumentation of emergency assistance at pre-hospital stage in infectious diseases in children:
 - meningococcal infection;
 - meningitis, meningoencephalitis;
 - hyperpyrexia with febrile seizures in ARI and other diseases;
 - food poisoning;
 - neurotoxicosis.
- ✓ To provide emergency medical assistance to children with:
 - septic shock (toxiinfectious)
 - acute cerebral edema.
- ✓ To develop the specifics in the criteria of admission in the community of convalescence and in the dynamic supervision of children with infectious diseases.
- ✓ To know the immunoprophylaxis of infectious diseases (National Immunization Schedule).

• at the application level:

- ✓ To examine the child with infectious diseases
- ✓ To establish and argument the early diagnosis of infectious diseases in children
- ✓ To create the home care plan
- ✓ To read the blood count in children with infectious diseases according to the age and etiology of the disease
- ✓ To have knowledge in the procedure of isolation and treatment of infectious disease at home.
- ✓ To create the paraclinical examination plan for children with infectious diseases, mentioning the main (specific) diagnostic methods
- ✓ To characterize the eruption in various eruptive infectious diseases
- ✓ To characterize the changes in pharynx in various infectious diseases with tonsillitis
- ✓ To know the method of gastric lavage in children
- ✓ To appreciate the presence and degree of dehydration in infants and children in acute diarrheal diseases
- ✓ To know the character of faeces in patients with ADD and viral hepatitis
- ✓ To know the oral rehydration therapy (plan A, B), intravenous (plan C)



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- ✓ To determine the meningeal signs in children with fever
- ✓ To correctly interpret the results of laboratory tests, CSF, bacterial examination of faeces, nasopharyngeal excretion, virological examination of blood, serological reactions (AT, IHA, PCR) of intestinal microflora in dysbiosis.

• at the integration level:

- ✓ To know the specificities of the causative agents of infectious diseases in children
- ✓ To know the infectious disease morbidity in children
- ✓ Have knowledge in pathogenesis and morphopathology of infectious diseases
- ✓ To know the contemporary principles and methods of diagnosis of infectious diseases
- ✓ To know the principles of specific therapy of infectious diseases (serotherapy, immunotherapy)
- ✓ To know the principles of antibiotic therapy for infectious diseases
- ✓ To know the principles of prophylaxis and control of infectious diseases and anti-epidemic measures in the outbreaks
- ✓ To know the forming principles of a medical observation sheet for patients with infectious diseases in children
- ✓ To know the structure, function and pathophysiological features of CNS, respiratory tract, digestive system and other systems in infants and young children
- ✓ To know the particularities of infectious diseases in adults
- ✓ To know the indications and possess the technique of lumbar puncture, with the subsequent interpretation of the results of the CSF analysis.

IV. PROVISIONAL TERMS AND CONDITIONS

- 1. The student is present at the practical lessons with thorough knowledge in the field (pharmacology, pathophysiology, microbiology, epidemiology, pediatrics).
- **2.** The student is obliged:
 - To know the language of teaching
 - To have a proper outfit for a doctor (white dressing gown, mask, footwear, stethoscope, training notebook).
 - To adhere to the anti-epidemic regime in the clinic, to preserve the cleanliness, order, tranquility and sleep of the sick child, to be benevolent with the patient, his parents or the guardian of the child.
 - To have communication and teamwork skills.
 - To promote the principles of ethics and deontology in the medical care of the sick child
 - To have digital skills (use of the Internet, processing medical records, protocols, electronic tables, etc.)



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V. THEMES AND ESTIMATE ALLOCATION OF HOURS

Lectures, seminars and self-training

No.	THEME	Nur	nber of h	
d/o	THEME	Lectures	Practical hours	Self- training
1.	Rules for hospitalization, distribution in wards and discharge of children with infectious diseases, documentation. Patient care. Clinical observation sheet. Vaccination schedule in the Republic of Moldova.	-	1	2
2.	Infectious gastrointestinal diseases in children (acute diarrheal disease - ADD). Shigellosis. Salmonellosis. Escherichiosis. Acute diarrhea with staphylococci, conditionally pathogenic enterobacteria and viruses. Classification of clinical forms. Peculiarities of evolution, clinical picture, treatment in children. Dehydration syndrome, pathogenesis, clinical picture, diagnosis, treatment. Oral rehydration.		5	7
3.	Viral hepatitis A in children. Etiopathogenesis. Clinical periods. Classification of clinical forms of acute viral hepatitis. Clinical picture. Clinical syndromes. Clinical and evolutions features. Differential diagnosis. Diagnostic. Treatment. Prophylaxis.	2	3	2
4.	Streptococcal infection in children . Scarlet fever. Etiopathogenesis. Classification of clinical forms of scarlet fever. Clinical syndromes. Clinical picture. Clinical features and evolution according to age. Differential diagnosis. Diagnostic. Treatment. Prophylaxis.	2	2	2
5.	Measles in children. Rubella in children. Congenital rubella. Etiopathogenesis. Classification of clinical forms. Clinical picture. Clinical features and evolution according to age. Differential diagnosis. Diagnostic. Treatment. Prophylaxis.	2	2	2
6.	Diphtheria in children . Etiopathogenesis. Classification of clinical forms of diphtheria. Clinical picture. Clinical features and evolution according to age. Differential diagnosis with infectious diseases with angina syndrome. Diagnostic. Treatment. Prophylaxis.		2	1
7.	Peculiarities of influenza and ARVI in children. Etiopathogenesis. Classification of clinical forms of influenza and ARVI. Clinical picture. Clinical syndromes. Clinical features and evolution according to age. Differential diagnosis with COVID-19 infection. Diagnostic. Treatment. Prophylaxis.	2	4	2
8.	Mumps in children. Etiopathogenesis. Classification of clinical forms of mumps. Clinical picture. Differential diagnosis. Diagnostic. Treatment. Prophylaxis.	2	2	2
9.	Pertussis (whooping cough). Parapertussis. Etiopathogenesis. Classification of clinical forms of whooping cough. Clinical picture. Clinical features and evolution according to age. Differential diagnosis. Diagnostic. Treatment. Prophylaxis.	2	2	2
10.	Chickenpox. Shingles. Herpes simplex infection in children. Etiopathogenesis. Classification of clinical forms of chickenpox and	2	3	2



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No.	No. d/o THEME		Number of hours		
			Practical hours	Self- training	
	other herpes infections. Clinical picture. Clinical features and evolution according to age. Differential diagnosis. Diagnostic. Treatment. Prophylaxis.				
11.	11. Enteroviral infections (EI) non-polio (enteroviruses). Poliomyelitis. Etiopathogenesis. Classification of clinical forms of enteroviruses, poliomyelitis. Clinical picture. Clinical features and evolution according to age. Differential diagnosis. Diagnostic. Treatment. Prophylaxis.		4	2	
12.	12. Meningococcal infection in children. Etiopathogenesis. Classification of clinical forms of meningococcal infection. Clinical picture. Clinical features and evolution according to age. Emergencies (septic shock, acute cerebral edema). Differential diagnosis. Laboratory diagnosis. Treatment. Prophylaxis.		4	2	
13.	13. Practical skills.		4	2	
14.	Test.	-	2		
Tot	cal	20	40	30	

VI. PRACTICAL TOOLS PURCHASED AT THE END OF THE COURSE

Mandatory essential practical tools are:

- Examination of the child with infectious diseases
- Determination of meningeal signs in children
- Rash characteristic in various eruptive infectious diseases
- Pharyngeal changes in various infectious diseases
- The nature of feces in children with in acute diarrheal diseases, viral hepatitis and other infectious diseases
- Degree of dehydration in infants and young children in acute diarrheal diseases
- Establishing and argumentation of the early diagnosis of infectious diseases in children
- Formation of the home health care plan
- Laboratory investigations plan for children with infectious diseases main (specific) methods of diagnosis
- Interpretation of the results of biological blood tests, hemoleukogram, CSF, bacteriological examination, virological examination, serological reactions (PCR, ELISA, AR, CFR, IHR, etc.)
- Treatment of the patient with infectious diseases at home and in the hospital
- Emergency care at the pre-hospital stage in infectious diseases in children
- Oral rehydration therapy (plan A, B), intravenous (plan C)
- Gastric lavage in children
- Duration of isolation of children with infectious diseases at home and in the hospital.



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VII. OBJECTIVES AND CONTENT UNITS

Objective Content units

Theme 1. Rules for hospitalization, distribution in wards and discharge of children with infectious diseases, documentation. Patient care. Clinical observation sheet. Vaccination schedule in the Republic of Moldova.

• To know:

- the rules for hospitalization of the patients with various infectious diseases;
- their distribution in separate boxes for certain diseases;
- hygienic and anti-epidemic regime.

• To demonstrate:

- completing the observation sheet;
- a caring attitude towards the sick child.

• To Apply:

- practical skills in the thorough examination of the sick child;
- logical description of the accumulated data (observation sheet, transfer epicrisis, stage, discharge, extract from the observation sheet, etc.);
- principles of ethics and deontology.

• To Integrate:

- knowledge of specific and non-specific prophylaxis of infectious diseases in children (including vaccination schedule).

Primary examination of the patient - initial method of thinking and argumentation of the diagnosis.

Clinical observation sheet written by each student medical element for diagnosis and treatment of patients.

Clinical thinking - a necessary element for establishing clinical diagnosis and differentiation from other pathologies.

Medical ethics and deontology - elements strictly necessary in the treatment of patients in order to prevent the disclosure of medical secrecy.

Theme 2. Infectious gastrointestinal diseases in children (acute diarrheal disease - ADD). Shigellosis. Salmonellosis. Escherichiosis. Acute diarrhea with staphylococci, conditionally pathogenic enterobacteria and viruses. Classification of clinical forms. Peculiarities of evolution, clinical picture, treatment in children. Dehydration syndrome, pathogenesis, clinical picture, diagnosis, treatment. Oral rehydration.

• To define:

clinical and diagnostic features depending on the age of the child, specific ADD (shigellosis, salmonellosis, escherichiosis, acute diarrhea staphylococci, with conditionally pathogenic enterobacteria and viruses);

• To know:

- incidence, modern aspects of etiopathogenesis of shigellosis,

Sources of infection and routes of transmission in shigellosis, salmonellosis, escherichiosis acute diarrhea with staphylococci, conditionally pathogenic enterobacteria and viruses.

Viral infections, which can develop with gastrointestinal syndrome.

Characteristic toxic syndrome in Acute

Diarrheal Disease (ADD).

Characteristic of diarrhea syndrome in ADD.

Clinical picture of shigellosis, salmonellosis, escherichiosis, acute diarrhea with staphylococci,



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Objective Content units

salmonellosis, escherichiosis, acute diarrhea with staphylococci, conditionally pathogenic enterobacteria and viruses in children;

- clinical and paraclinical diagnosis in ADD;
- clinical classification of shigellosis, salmonellosis, escherichiosis, acute diarrhea with staphylococci, conditionally pathogenic enterobacteria and viruses;
- clinical syndromes in ADD and peculiarities in children of different ages;
- signs of dehydration in ADD;
- principles of treatment of shigellosis, salmonellosis, escherichiosis, acute diarrhea with staphylococci, conditionally pathogenic enterobacteria and viruses depending on the age of the child, premorbid background and complications;
- dehydration treatment (plan A, B, C) in ADD.

• Demonstrate the ability to:

- to perform the clinical diagnosis of shigellosis, salmonellosis, sclerosis, acute diarrhea with staphylococci, conditionally pathogenic enterobacteria and viruses in children;
- to perform the differential diagnosis of ADD and its argumentation;
- to describe the laboratory data for the diagnosis of ADD;
- to argue the definitive clinical diagnosis (complications and comorbidities);
- to draw up the treatment plan in the ADD and its argumentation.

• To apply:

- the knowledge acquired in approaching the child with ADD;
- the algorithm for diagnosis, differential diagnosis and treatment in possible emergencies in the severe child with ADD;

conditionally pathogenic enterobacteria and viruses in children.

Characteristics of stools in shigellosis, salmonellosis, escherichiosis, acute diarrhea with staphylococci, conditionally pathogenic enterobacteria and viruses.

Clinical classification of shigellosis, salmonellosis, escherichiosis, acute diarrhea with staphylococci, conditionally pathogenic enterobacteria and viruses.

Criteria of severity in ADD.

Clinical features of food poisoning in ADD.

Clinical signs of hypokalemia.

Peculiarities of shigellosis, salmonellosis, escherichiosis, acute diarrhea with staphylococci, conditionally pathogenic enterobacteria and viruses in infants and newborns.

Complications in ADD.

Differential diagnosis in ADD.

Criteria for hospitalization of children with ADD.

Criteria for discharge of patients with ADD.

Diagnostic methods in ADD in children.

Principles of treatment in ADD in children at home and in the hospital.

Assessment the degree of dehydration of the patient with ADD. Treatment plan A, B and C.

Correction of bowel biocenosis in young children. Specific and non-specific prophylaxis in ADD.



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Objective	Content units
 the knowledge obtained for the optimization of the therapeutic compliance; knowledge related to the preparation of documentation (observation sheet, transfer epicrisis, stage, discharge, extract from the observation sheet, etc.). 	
 To integrate: knowledge in the fields of fundamental, preclinical and clinical disciplines in practice; knowledge of specific and / or non-specific prophylaxis in ADD. 	

Theme 3. Viral hepatitis A in children. Etiopathogenesis. Clinical periods. Classification of clinical forms of acute viral hepatitis. Clinical picture. Clinical syndromes. Clinical and evolutions features. Differential diagnosis. Diagnostic. Treatment. Prophylaxis.

• To define:

 specific clinical and diagnostic features of acute viral hepatitis, according to the child's age;

• To know:

- incidence, modern aspects of etiopathogenesis of acute viral hepatitis in children;
- clinical and paraclinical methods of the diagnosis in viral hepatitis and their significance in diagnosis;
- clinical classification of acute viral hepatitis;
- clinical syndromes characteristic of acute viral hepatitis with particularities in children and their significance for nosological diagnosis;
- the characteristic of the liver in the healthy child and in the infectious pathology with the damage of the liver;
- the principles of treatment of acute viral hepatitis according to the child's age, premorbid background and complications.

• Demonstrate the ability to:

- to establish the clinical diagnosis of acute viral hepatitis in children;

Epidemiological features of enteral and parenteral viral hepatitis.

Clinical classification of acute viral hepatitis.

Duration of incubation periods of viral hepatitis A, B, C, D. E.

Clinical periods of viral hepatitis and their duration.

Clinical features of acute viral hepatitis.

Atypical forms of acute viral hepatitis.

Clinical and laboratory tests that determine the degree of severity of the disease.

Differential diagnosis of viral hepatitis in various periods of the disease.

Contemporary methods of diagnosis and treatment of patients with viral hepatitis.

Complications of acute viral hepatitis.

Consequences and sequelae of acute viral hepatitis depending on the etiological factor.

Specific and non-specific prophylaxis of acute viral hepatitis.



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Objective	Content units
 to make the differential diagnosis of viral hepatitis A with other acute viral hepatitis and its argumentation; to describe laboratory and instrumental data and their importance for the diagnosis of acute viral hepatitis; to draw up the final clinical diagnosis (underlying disease, complications and comorbidities) of acute viral hepatitis; to draw up the treatment plan for the patient with acute viral hepatitis. 	
 To apply: the knowledge acquired in approaching the child with acute viral hepatitis; the algorithm for diagnosis, differential diagnosis of acute viral hepatitis and treatment in possible emergencies in the severe child; the knowledge acquired in the analysis of case studies and practical activity; the knowledge obtained to optimize the therapeutic compliance of patients with acute viral hepatitis; knowledge related to the preparation of documentation in viral hepatitis (observation sheet, transfer epicrisis, stage, discharge, extract from the observation sheet, etc.). 	
 To integrate: knowledge in the fields of fundamental, preclinical and clinical disciplines in practice; knowledge of specific and non-specific prophylaxis of viral hepatitis in children (including vaccination schedule). 	

Theme 4. Streptococcal infection in children. Scarlet fever. Etiopathogenesis. Classification of clinical forms of scarlet fever. Clinical syndromes. Clinical picture. Clinical features and evolution according to age. Differential diagnosis. Diagnostic. Treatment. Prophylaxis.

• To define:

 the clinical and diagnostic features of scarlet fever according to the age of the child.

• To know:

Peculiarities of the pathogen in streptococcal infections.

Epidemiological features of scarlet fever (source of infection, routes of transmission, receptivity, antitoxic and antibacterial immunity, etc.).

Pathogenesis of scarlet fever, the action of toxic, allergic and septic factors.



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Objective	Content units
Objective	Content units

- incidence, etiopathogenic aspects of scarlet fever in children;
- clinical and paraclinical diagnosis (laboratory and instrumental) of scarlet fever;
- clinical classification of scarlet fever;
- clinical syndromes characteristic of scarlet fever;
- principles of scarlet fever treatment.

• Demonstrate the ability to:

- to perform the clinical diagnosis of scarlet fever;
- to perform the differential diagnosis of scarlet fever;
- to describe laboratory and instrumental data;
- to argue the definitive clinical diagnosis of scarlet fever (complications and comorbidities);
- to indicate the personalized treatment plan of the scarlet fever patient.

• To apply:

- the algorithm for diagnosis, differential diagnosis and treatment in possible emergencies in the severe child with scarlet fever;
- the knowledge acquired in the analysis of case studies;
- knowledge related to the preparation of the documentation in scarlet (observation sheet, transfer epicrisis, stage, discharge, extract from the observation sheet, etc.).

• To integrate:

- knowledge in the fields of fundamental, preclinical and clinical disciplines in daily practice;
- knowledge about nonspecific prophylaxis of scarlet fever in children.

Clinical classification of scarlet fever

Clinical manifestations of scarlet fever.

The main manifestations of allergic factor in scarlet fever.

Clinical manifestations caused by septic factor.

The characteristic rash in scarlet fever.

Changes in the pharyngeal isthmus in scarlet fever.

Cardiovascular changes in scarlet fever.

Characteristic of atypical forms in scarlet fever.

Complications in scarlet fever.

Differential diagnosis in scarlet fever.

Laboratory diagnosis of scarlet fever.

Scarlet fever treatment principles. Scarlet fever treatment at home.

Indications for hospitalization.

Anti-epidemic measures in the scarlet fever outbreak.

Theme 5. Measles in children. Rubella in children. Congenital rubella. Etiopathogenesis. Classification of clinical forms. Clinical picture. Clinical features and evolution according to age. Differential diagnosis. Diagnostic. Treatment. Prophylaxis.

•	To define:	Measles, rubella at the current stage in the world and
		in the Republic of Moldova.



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Objective

clinical and diagnostic features according to the age of the child, specific to measles, rubella.

• To know:

- incidence, modern aspects of etiopathogenesis of measles, rubella in children;
- clinical and paraclinical diagnosis;
- classification of measles, rubella;
- clinical syndromes;
- principles of treatment according to the child's age, premorbid background and complications.

• Demonstrate the ability to:

- to perform the clinical diagnosis of measles, rubella in children;
- to make the differential diagnosis of measles, rubella and its argument;
- to describe laboratory and instrumental data;
- to argue the clinical diagnosis of measles, rubella (complications and comorbidities):
- to indicate the treatment plan for patients with measles, rubella.

• To apply:

- the knowledge acquired in approaching the child with measles, rubella;
- the algorithm of diagnosis, differential diagnosis and treatment in possible emergencies in the severe child with measles, rubella;
- the knowledge acquired in the analysis of case studies and practical activity;
- the knowledge obtained for the optimization of the therapeutic compliance in measles and rubella;
- knowledge related to the patient documents (observation sheet, daily surveillance, discharge, epicrisis etc.).

• To integrate:

 knowledge in the fields of fundamental, preclinical and clinical disciplines in daily practice; **Content units**

Characteristic of the causative agent of measles, rubella.

The tropism of measles and rubella virus.

Source of infection, routes of transmission, receptivity. Duration of the incubation period. Clinical periods and

their duration.

Basic syndromes in acquired rubella.

Rubella and pregnant. Congenital rubella.

Mitigated measles.

Measles rash.

Rash in the rubella.

Differential diagnosis in measles.

Differential diagnosis in rubella.

Complications in measles, acquired rubella.

Paraclinical investigations in measles, rubella.

Treatment of measles, rubella.

Criteria for discharge and surveillance of measles patients.



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Objective	Content units
- knowledge of specific and non-specific prophylaxis of measles, rubella in children (including vaccination schedule).	

Theme 6. Diphtheria in children. Etiopathogenesis. Classification of clinical forms of diphtheria. Clinical picture. Clinical features and evolution according to age. Differential diagnosis with infectious diseases with angina syndrome. Diagnostic. Treatment. Prophylaxis.

To define:

- clinical and diagnostic features.

• To know:

- incidence, modern aspects etiopathogenesis;
- clinical and paraclinical diagnosis;
- diphtheria classification;
- complications;
- to know the principles of treatment.

• Demonstrate the ability to:

- to perform the clinical diagnosis;
- to perform the differential diagnosis;
- to describe laboratory and instrumental data;
- to argue the clinical diagnosis carried out (complications and comorbidities);
- to draw up the personalized treatment plan and its argumentation.

• To apply:

- the knowledge acquired in approaching the patient with diphtheria;
- diagnostic algorithm, differential diagnosis and treatment;
- the knowledge acquired in the analysis of case studies and practical activity;
- the knowledge obtained for the optimization of the therapeutic compliance;
- knowledge related to the documents (observation sheet, daily surveillance, discharge, epicrisis etc.).

• To integrate:

- knowledge in the fields of fundamental, preclinical and clinical disciplines in practice and daily life; Characteristic of the causative agent of diphtheria.

Basic principles of clinical classification.

Classification of pharyngotonsillar diphtheria.

Signs of fibrinous inflammation.

Organs and systems that are damaged in case of toxic diphtheria.

Clinical picture of pharyngo-tonsillar diphtheria.

Basic clinical signs of laryngeal diphtheria.

Clinical picture of pharyngo-tonsillar diphtheria in vaccinated persons.

Complications of diphtheria.

Diphtheria myocarditis.

Toxic nerve complications.

Methods of diagnosis of pharyngotonsillar diphtheria. Differential diagnosis with infectious and non-

infectious diseases with angina syndrome.

Principles of treatment.

Treatment of diphtheria with diphtheria antitoxin.

Treatment of localized forms in pharyngotonsillar diphtheria.

Principles of treatment of toxic forms of pharyngotonsillar diphtheria.

Specific and non-specific prophylaxis.



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- knowledge of specific and non-specific diphtheria prophylaxis (including vaccination schedule).	

Theme 7. Peculiarities of influenza and ARVI in children. Etiopathogenesis. Classification of clinical forms of influenza and ARVI. Clinical picture. Clinical syndromes. Clinical features and evolution according to age. Differential diagnosis with COVID-19 infection. Diagnostic. Treatment. Prophylaxis.

• To define:

- clinical and diagnostic features depending on the age of the child, specific to influenza, ARVI, COVID-19 infection.

• To know:

- incidence, modern aspects of etiopathogenesis;
- clinical and paraclinical diagnosis;
- classification of influenza, ARVI, COVID-19 infection;
- characteristic clinical syndromes;
- peculiarities in children of different ages;
- principles of treatment depending on the child's age, premorbid background and complications.

• Demonstrate the ability to:

- to perform the clinical diagnosis;
- to perform the differential diagnosis and its argumentation;
- to describe laboratory and instrumental data and their importance for diagnosis;
- to draw up the clinical diagnosis carried out (complications and comorbidities);
- to draw up the personalized treatment plan and its argumentation.

• To apply:

- the knowledge acquired in approaching the child with influenza, ARVI;
- the algorithm for diagnosis, differential diagnosis and treatment in possible emergencies in the severe case;
- the knowledge acquired in the analysis of case studies and practical activity;
- the knowledge obtained for the optimization of the therapeutic compliance;

Sources of influenza and ARV infections.

Airway segments predominantly affected in influenza and other ARVI.

Etiopathogenesis of influenza and other ARVI.

Clinical syndromes in influenza and ARVI.

Stenotic laryngotracheitis (croup syndrome) in influenza and ARVI, clinical picture and stages of evolution.

Clinical picture in influenza with neurotoxicosis syndrome. Urgent assistance at the pre-hospital stage. Clinical forms in adenoviral infection.

Bronchoobstructive syndrome in respiratory syncytial virus infection - clinical picture and treatment.

Complications of influenza and other ARVI.

Etiological confirmation in influenza, ARVI.

Indications for hospitalization of a child with influenza, ARVI.

Treatment of patients with influenza and ARVI, severe forms (neurotoxicosis, hyperpyrexia, convulsions).

Treatment of patients with influenza and ARVI, mild and moderate forms at home.

Specific and non-specific prophylaxis of influenza and ARVI.



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Objective	Content units
 knowledge related to the documents (observation sheet, daily surveillance, discharge, epicrisis etc.). To integrate: knowledge in the fields of fundamental, 	
 preclinical and clinical disciplines in practice and daily life; knowledge of specific flu prophylaxis. 	

Theme 8. Mumps in children. Etiopathogenesis. Classification of clinical forms of mumps. Clinical picture. Differential diagnosis. Diagnostic. Treatment. Prophylaxis.

• To define:

- clinical and diagnostic features specific to mumps depending on the age of the child.

• To know:

- incidence, modern aspects etiopathogenesis of mumps;
- clinical and paraclinical diagnosis;
- classification of mumps;
- principles of treatment of mumps.

• Demonstrate the ability to:

- to perform the clinical diagnosis of mumps;
- to perform the differential diagnosis and its argumentation;
- to describe the laboratory and instrumental data and their importance for the diagnosis of mumps;
- to prepare the final clinical diagnosis;
- to draw up the personalized treatment plan and its argumentation.

• To apply:

- the knowledge acquired in approaching the child with mumps;
- the algorithm for diagnosis, differential diagnosis and treatment in possible emergencies in the child with mumps;
- the knowledge acquired in the analysis of case studies and practical activity;
- the knowledge obtained for the optimization of the therapeutic compliance;

Morphopathological changes in the disease of the endocrine glands and meninges.

Source of infection, routes of transmission of the disease.

Clinical classification of mumps.

Clinical forms in mumps (according to type, severity and evolution).

Clinical picture and frequency of salivary gland damage.

The clinical picture in mumps pancreatitis.

Clinical picture and frequency of damage to the testicles and mammary glands.

Clinical picture in mumps with CNS involvement. CSF feature.

Clinical features of mumps in adults.

Mumps complications.

Diagnostic methods of mumps.

Differential diagnosis between mumps, purulent mumps, toxic diphtheria, cervical lymphadenitis, tuberculous meningitis.

Principles of treatment in various clinical forms. Specific and nonspecific prophylaxis of mumps.



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Objective	Content units
- knowledge related to the documents (observation sheet, daily surveillance, discharge, epicrisis etc.).	
 To integrate: knowledge in the fields of fundamental, preclinical and clinical disciplines in daily practice; knowledge of specific and non-specific prophylaxis of mumps (including vaccination schedule). 	

Theme 9. Pertussis (whooping cough). Parapertussis. Etiopathogenesis. Classification of clinical forms of whooping cough. Clinical picture. Clinical features and evolution according to age. Differential diagnosis. Diagnostic. Treatment. Prophylaxis.

• To define:

- clinical and diagnostic features depending on the age of the child, specific to whooping cough.

• To know:

- incidence, modern aspects of etiopathogenesis;
- clinical and paraclinical diagnosis (laboratory and instrumental);
- classification of whooping cough;
- the clinical periods characteristic of whooping cough with particularities in children;
- the principles of treatment of whooping cough depending on the child's age, premorbid background and complications.

• Demonstrate the ability to:

- to perform the clinical diagnosis of whooping cough;
- to perform the differential diagnosis and its argumentation;
- to describe laboratory and instrumental
- to draw up the clinical diagnosis carried out (basic disease, complications and comorbidities);
- to draw up the personalized treatment plan for whooping cough and its reasoning.

Etiopathogenesis of whooping cough.

The source of infection, the routes of transmission, receptivity, the peculiarities of immunity in whooping cough.

The mechanism of spastic cough access.

Peculiarities of Uhtomski dominance in the pathogenesis of whooping cough.

Disease periods and their duration.

Clinical picture of catarrhal and spasmodic period in whooping cough.

Severity indices.

Classification of clinical forms in whooping cough.

Complications of whooping cough.

Laboratory investigations necessary to confirm the diagnosis of whooping cough.

Differentiation of whooping cough in catarrhal and spasmodic period.

Peculiarities of whooping cough in infants.

Peculiarities of whooping cough in vaccinated people. Clinical features of whooping cough caused by B. parapertussis.

Principles of treatment of whooping cough, antibiotic therapy.

Antiepidemic measures in the outbreak of whooping cough.

Specific and non-specific prophylaxis of whooping cough.

To apply:



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	Objective	Content units
-	the knowledge acquired in approaching the child with whooping cough; the algorithm for diagnosis, differential	
-	diagnosis and treatment in possible emergencies in the severe child with whooping cough;	
-	the knowledge acquired in the analysis of case studies and practical activity.	
-	To integrate: knowledge in the fields of fundamental, preclinical and clinical disciplines in daily practice;	
-	knowledge of specific and non-specific prophylaxis of whooping cough in children (including vaccination schedule).	

Theme 10. Chickenpox. Shingles. Herpes simplex infection in children. Etiopathogenesis. Classification of clinical forms of chickenpox and other herpes infections. Clinical picture. Clinical features and evolution according to age. Differential diagnosis. Diagnostic. Treatment. Prophylaxis.

• To define:

- clinical and diagnostic features depending on the child's age, specific to chickenpox, shingles, herpes simplex infection.

• To know:

- incidence, modern aspects of etiopathogenesis of chickenpox and other herpes infections in children;
- clinical and paraclinical diagnosis (laboratory and instrumental);
- classification of chickenpox, herpes simplex infection;
- clinical forms characteristic of herpes infections in children;
- treatment principles.

• Demonstrate the ability to:

- to make a clinical diagnosis of chickenpox, shingles, herpes simplex infection in children;
- to perform the differential diagnosis and its argumentation;
- to describe laboratory and instrumental data and their importance for diagnosis;
- to draw up the finale clinical diagnosis

Sources of infection and their epidemic importance.

Classification of chickenpox.

Clinical forms of chickenpox.

Clinical picture of chickenpox and shingles.

Rash in chickenpox and shingles.

Peculiarities of chickenpox in infants.

Peculiarities of chickenpox in adolescents, adults and pregnant women.

Severity criteria for chickenpox and shingles.

Complications in chickenpox.

Diagnosis of chickenpox and shingles.

Differential diagnosis of chickenpox and shingles.

Criteria for hospitalization of patients with chickenpox and shingles.

Principles of treatment in chickenpox and shingles.

Clinical forms of Herpes simplex virus type 1 infection.

Clinical symptoms in herpetic gingivostomatitis.

Skin manifestations in herpes simplex infection.

Clinical picture of herpetic encephalitis in children.

Laboratory diagnostic methods in herpes infection.

Differential diagnosis between herpetic gingivostomatitis, herpangina, stomatomycosis, footand-mouth disease, chickenpox.

Treatment of herpes simplex infection.

Prophylaxis of herpes simplex infections.



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- to draw up the personalized treatment plan for the patient with herpes infection.	
 To apply: the knowledge acquired in the approach of the child with chickenpox, shingles, herpes simplex infection in children; diagnostic algorithm, differential diagnosis and treatment in possible emergencies; the knowledge acquired in the analysis of case studies and practical activity; knowledge related to the documents (observation sheet, daily surveillance, discharge, epicrisis etc.). 	
 To integrate: knowledge in the fields of fundamental, preclinical and clinical disciplines in daily practice; knowledge of specific and non-specific prophylaxis of chickenpox, shingles, herpes simplex infection. 	polio (enteroviruses) Poliomvelitis Etionathogenesis

Theme 11. Enteroviral infections (EI) non-polio (enteroviruses). Poliomyelitis. Etiopathogenesis. Classification of clinical forms of enteroviruses, poliomyelitis. Clinical picture. Clinical features and evolution according to age. Differential diagnosis. Diagnostic. Treatment. Prophylaxis.

• To define:

- clinical and diagnostic features of enteroviruses and poliomyelitis.

• To know:

- incidence, modern aspects of etiopathogenesis;
- clinical and paraclinical diagnosis of enteroviruses and poliomyelitis;
- clinical classification of enteroviruses and poliomyelitis;
- clinical forms and peculiarities in children:
- principles of treatment of enteroviruses and poliomyelitis.

• Demonstrate the ability to:

- to perform the clinical diagnosis of enteroviruses and poliomyelitis in children; Clinical classification of enteroviruses.

Clinical signs in herpangina.

Clinical signs of enteroviral meningitis.

CSF characteristic in serous (aseptic) meningitis.

Clinical signs in enteroviral myalgia.

Clinical signs of enteroviral encephalomyocarditis in newborns.

Clinical signs in "mouth, hand, foot" syndrome.

Clinical signs in the paralytic form of EI.

Differential diagnosis of EI.

Criteria for hospitalization of patients with EI.

Incubation period (maximum and minimum) in poliomyelitis.

Clinical classification of poliomyelitis.

Clinical periods in poliomyelitis.

Clinical symptoms of paralytic poliomyelitis (spinal, bulbar, pontine form of poliomyelitis).

Clinical symptoms of inapparent and abortive forms in poliomyelitis.



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Objective

- to perform the differential diagnosis and its argumentation;
- to describe laboratory and instrumental data;
- to confirm the finale clinical diagnosis;
- to indicate the personalized treatment plan and its argumentation.

• To apply:

- the knowledge acquired in approaching the child with enterovirus and poliomyelitis;
- diagnostic algorithm, differential diagnosis and treatment;
- the knowledge acquired in the analysis of case studies and practical activity;
- the knowledge obtained for the optimization of the therapeutic compliance;
- knowledge related to the documents (observation sheet, daily surveillance, discharge, epicrisis etc.).

• To integrate:

- knowledge in the fields of fundamental, preclinical and clinical disciplines in daily practice;
- knowledge of specific and non-specific prophylaxis of poliomyelitis and enteroviruses in children (including vaccination schedule).

Clinical manifestations and diagnostic criteria for vaccine-associated poliomyelitis.

Content units

Complications and sequelae in poliomyelitis.

Differential diagnosis of poliomyelitis.

Laboratory diagnosis of enteroviruses and poliomyelitis.

Principles of treatment in enteroviruses and poliomyelitis.

Discharge criteria and post-discharge supervision of patients with EI and poliomyelitis.

Specific and non-specific prophylaxis of poliomyelitis.

Theme 12. **Meningococcal infection in children.** Etiopathogenesis. Classification of clinical forms of meningococcal infection. Clinical picture. Clinical features and evolution according to age. Emergencies (septic shock, acute cerebral edema). Differential diagnosis. Laboratory diagnosis. Treatment. Prophylaxis.

• To define:

- clinical and diagnostic features according to the child's age, specific to meningococcal infection.

• To know:

- incidence, modern aspects of etiopathogenesis of meningococcal infection;
- clinical and paraclinical diagnosis (laboratory and instrumental) and their importance in diagnosis;

The main properties of meningococcus.

Sources of infection.

Transmission routes, susceptibility according to age, seasonal nature.

Pathogenesis.

The main morphological changes of blood vessels, skin, adrenal glands, spinal cord, brain.

Collection of anamnesis in patients with suspicion of meningococcal meningitis.

Classification of meningococcal infection.

Clinical manifestations of meningococcal infection.



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Objective Content units classification of meningococcal infection; Characteristic of meningococcemia. clinical forms; peculiarities in children of different ages;

treatment principles.

Demonstrate the ability to:

- to perform the early clinical diagnosis of meningococcal infection;
- to perform the differential diagnosis and its argumentation;
- to describe laboratory and instrumental data and their importance for diagnosis;
- confirm the clinical diagnosis to (complications and comorbidities);
- to indicate the treatment (of the basic disease and comorbidities) and its argumentation.

To apply:

- the algorithm for diagnosis, differential diagnosis and treatment in possible emergencies at the pre-hospital and hospital stage;
- the knowledge acquired in the analysis of case studies and practical activity;
- knowledge obtained for the the optimization of therapeutic the compliance;
- knowledge related to the documents (observation sheet, daily surveillance, discharge, epicrisis etc.).

To integrate:

- knowledge in the fields of fundamental, preclinical and clinical disciplines in daily practice;
- knowledge of specific and non-specific prophylaxis of meningococcal infection in children.

Peculiarities of meningococcal infection in infants and newborns.

The clinical picture of septic shock in severe forms. Acute cerebral edema syndrome, clinical picture.

Brain hypotension syndrome, clinical picture.

Paraclinical diagnostic methods in localized and generalized forms of meningococcal infection.

Changes in hemoleukogram and cerebrospinal fluid analysis in meningococcal meningitis.

Differential diagnosis of meningococcal meningitis, meningococcemia.

Complications and sequelae in meningococcal infection.

Principles of treatment of meningococcal infection depending on the clinical form of the disease.

Urgent medical assistance in severe forms of meningococcal infection (septic shock grade I, II, III and acute cerebral edema).

VIII. PROFESSIONAL (SPECIFIC) (SC) AND TRANSVERSAL (TC) COMPETENCES AND STUDY FINALITIES

Professional (specific) (SC) competences

PC1. Responsible execution of professional tasks with the application of the values and norms of professional ethics, as well as the provisions of the legislation in force



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- PC2. Adequate knowledge of the sciences about the structure of the body, physiological functions and behavior of the human body in various physiological and pathological states, as well as the relationships between health, physical and social environment
- PC3. Resolving clinical situations by developing a plan for diagnosis, treatment and rehabilitation in various pathological situations and selecting appropriate therapeutic procedures for them, including the provision of emergency medical care
- PC4. Promoting a healthy lifestyle, applying prevention and self-care measures
- PC5. Interdisciplinary integration of the doctor's activity in a team with efficient use of all resources
- PC6. Carrying out scientific research in the field of health and in other branches of science

✓ Transversal competences (TC)

• TC1. Autonomy and responsibility in the activity TC2.

✓ Study finalities

- To know the evolutionary and age specificities of infectious diseases in children
- To know the methodology of early diagnosis of infectious diseases in children
- To understand the principles of clinical, laboratory and instrumental examinations in differential diagnosis of contagious diseases
- To know the particularities of the diagnostic algorithm for the argumentation of a personalized etiopathogenic and symptomatic treatment
- To take optimal decisions in granting emergency medical assistance to patients with infectious diseases in critical situations
- To be able to acquire daily the new achievements in infectious diseases and to perform interdisciplinary clinical synthesis (microbiology, neurology, pediatrics, etc.)

Note. Study outcomes (are deduced from the professional competencies and formative valences of the informational content of the discipline).

IX. STUDENT'S SELF-TRAINING

Nr.	Expected product	Implementation strategies	Assessment criteria	Implementation terms
1.	Work with information sources and National Clinical Protocols	Reading the lecture and the material in the manual on the subject Reading questions on the subject, which requires a reflection on the subject Work systematically in the library and media library. Exploring current electronic sources on the topic	Ability to extract the essentials, interpretive abilities. The quality of systematization of the information obtained through its own activity.	During the module



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		•		
2.	Work with online materials	Studying on-line materials on the discipline web site, and on other sites with specialized databases and literature	Presentation of information in practical works and seminars	During the module
3.	Preparing presentations and reports	Analysis of relevant bibliographic sources for the topic. Analysis, systematization and synthesis of information on the proposed theme.	The volume of work, the degree of penetration in the essence of the report, the level of argumentation, the quality of the conclusions, the presentation method.	During the module
		Compilation of the report in accordance with the requirements in force and its presentation		
4.	Examination of patients during practical work	Patient examination, correct assessment of data obtained from the patient's immediate examination, paraclinic data; tactics of diagnosis, differential diagnosis and individualized treatment	Correct formulation and argumentation of the patient's diagnosis, investigation plan and treatment	During the module
5.	Case study analysis	Choice and description of the case study. Analysis of etiological factors, results of laboratory and paraclinical investigations, treatment plan in the case study. Prognosis of the case investigated.	Analysis, synthesis and argumentation of data obtained through own investigation. Formation of an algorithm of knowledge based on the obtained conclusions	During the module

X. METHODOLOGICAL SUGGESTIONS FOR TEACHING-LEARNING-ASSESSMENT

• Teaching and learning methods used

In teaching Infectious Diseases in Children, different teaching methods and procedures are used aimed at learning and achieving the objectives of the teaching process, such as: course support, practical lesson, notes, clinical debate, situation simulation, group and individual work methods, the study of curricular documents, essays, portfolios and essays of the bibliography.

The seminars are held using extensive clinical and illustrative material (tables, diagrams, microphotographs) and thematic tests.

Practical lessons are expected:

- At the patient's bedside, with the examination and discussion of thematic patients, with the interpretation of laboratory and paraclinical investigations, estimation of the treatment scheme



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- Involvement of beneficiaries in the presentation of clinical cases with various infectious pathologies
- Holding practical lessons in an interactive manner, by approaching the teaching strategy focused on active and interactive learning: multidirectional communication with training of training skills
- At the end of each chapter discussed, the reader makes a generalization
- Additional documentation in the library, on specialized electronic platforms and in the field

Recommended learning methods

- **Observation.** Determination of clinical and paraclinical features depending on the age of infectious diseases in children
- Analysis. Accentuate the essential elements. Studying each element as part of the whole
- ➤ Analysis of Infectious Diseases. Select the required information. Recognition and description of infectious diseases detected.
- ➤ Classification. Determination of the criteria on the basis of which the classification of infectious diseases must be carried out.
- ➤ The didactic and research activity consists in the preparation by the beneficiaries of the reference materials in the field of infectious diseases in children, of the illustrative materials, of the synthesis reports, the participation with communications at clinical, scientific-practical conferences, etc.

• Applied (specific to the discipline) teaching strategies / technologies

Strategies (applied didactic technologies specific to the discipline) Exposition, interactive lecture, group work, individual study, work with the textbook and the scientific text, solving case-problem situations, simulation, interactive listening

• *Methods of assessment* (including the method of final mark calculation)

Current: Front and / or individual control by:

- A. Application of docimological tests
- B. Solving problems / exercises
- C. Analysis of case studies, essays, reports
- D. Making role-plays on the topics discussed
- E. Control works

Final: Exam by module. The modality / Final grade will consist of the average grade from 2 control assessments and individual work (part 0.5), the final test in a computer system (part 0.2) and practical skills (part 0.3).



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Method of mark rounding at different assessment stages

Intermediate marks scale (annual average, marks from the examination stages)	National Assessment System	ECTS Equivalent	
1,00-3,00	2	F	
3,01-4,99	4	FX	
5,00	5		
5,01-5,50	5,5	E	
5,51-6,0	6		
6,01-6,50	6,5	D	
6,51-7,00	7		
7,01-7,50	7,5	С	
7,51-8,00	8		
8,01-8,50	8,5	В	
8,51-9,00	9		
9,01-9,50	9,5		
9,51-10,0	10	A	

The average annual mark and the marks of all stages of final examination (computer assisted, test, oral) - are expressed in numbers according to the mark scale (according to the table), and the final mark obtained is expressed in number with two decimals, which is transferred to student's recordbook.

Absence on examination without good reason is recorded as "absent" and is equivalent to 0 (zero). The student has the right to have two re-examinations in the failed exam.

RECOMMENDED LITERATURE:

A. Compulsory:

- 1. Harrison's infectious Diseases / editors: Dennis L. Kasper, Anthony S.Fauci. 3rd ed.New York : McGraw-Hill Education, 2017.
- 2. Infectious diseases in children. A. M. Mikhailova, I. P. Minkov, A. I. Savchuk. Odessa State Medical University, 2003.

B. Additional:

- 1. Galina Rusu (redacția III). Manual. Boli infecțioase la copii, Chisinău, 2021.
- 2. Chiotan, M. Boli infecțioase. București: Ed. Național, 2011.
- 3. Culegere de teste la boli infecțioase la copii sub redacția G.Rusu, USMF "Nicolae Testemițanu", 2016.
- 4. Boli infecțioase la copii: (ghid practic pentru studenți) / sub red.: Galina Rusu USMF "Nicolae Testemițanu", 2015.
- 5. Boli infecțioase. Curs pentru studenți și medici rezidenți / sub redacția Adrian Streinu-Cercel, Victoria Aramă, Petre Iacob Calistru. București : Editura Universitară "Carol Davila", 2019.
- 6. Учайкин В.Ф. Инфекционные болезни у детей : Учебник / В.Ф. Учайкин, О.В.Шамшева. Москва : ГЭОТАР-Медия, 2018.
- 7. Protocoale clinice nationale