

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

**Контрольный  
экземпляр**



**APPROVED**

by First Vice-Rector, Professor

I.N.Moroz

20.12.2019

Reg. # UD-L. 634/192dedu.

**PEDIATRIC DENTISTRY**

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

**1-79 01 07 «Stomatology»**

Curriculum is based on the educational program «Pediatric Dentistry», approved 10.06.2019, registration № УД-Л.634/1920/уч.

**COMPILERS:**

T.N.Terehova, MD, Professor, Head of the Department of Pediatric Dentistry of Belarusian State Medical University;

N.V.Shakovets, MD, Professor of the Department of Pediatric Dentistry of Belarusian State Medical University;

L.P.Belik, PhD, Associate Professor of the Department of Pediatric Dentistry of Belarusian State Medical University;

D.N.Naumovich, PhD, Associate Professor of the Department of Pediatric Dentistry of Belarusian State Medical University;

O.M.Leonovich, PhD, Associate Professor of the Department of Pediatric Dentistry of Belarusian State Medical University;

Y.V.Zenkevich, Assistant of the Department of Pediatric Dentistry of Belarusian State Medical University

**RECOMMENDED FOR APPROVAL:**

by the Department of Pediatric Dentistry of the Educational Institution «Belarusian State Medical University»  
(protocol # 6 of 20.11.2019);

by the Scientific Methodical Council of the Educational Institution «Belarusian State Medical University»  
(protocol # 4 of 18.12.2019)

## EXPLANATORY NOTE

«**Pediatric dentistry**» is the educational discipline containing systematized scientific knowledge and techniques for diagnosis, treatment and prevention of dental diseases in children.

The curriculum of the discipline «Pediatric Dentistry» includes the latest scientific data about specific features of diagnosis of diseases, as well as the choice of methods of treatment of pathological processes of the maxillofacial region in children. Knowledge and consideration of the specific features provides a timely and proper recognition, the choice of adequate treatment and prevention of dental diseases.

The aim of teaching and learning the discipline «Pediatric Dentistry» is to provide the students with the scientific knowledge about the features of clinical course, modern aspects of diagnosis, prevention and treatment of most common dental diseases in children.

The tasks of studying the discipline are to develop the students' academic competences, based on the ability to self-search educational and information resources, as well as acquire and understand the knowledge of:

- methods and tools for diagnostic and treating caries and non-carious pathology of teeth, diseases of periodontium and oral mucosa in children;
- mechanisms of development, methods and techniques diagnostic and treatment of congenital pathology, traumatic injuries and inflammatory diseases of the maxillofacial region, teeth, soft tissues, bones in children;
- the most common oral manifestations of somatic diseases in children and methods for their diagnostic.

The tasks of teaching the discipline include the formation of students' social, personal and professional competences, based on the knowledge and application of:

- etiology, pathogenesis and features of manifestation of the most common diseases of oral cavity and maxillofacial region in children;
- modern methods of diagnosis of the most common diseases of oral cavity and maxillofacial region in children;
- modern methods of prevention and treatment of the most common diseases of oral cavity and maxillofacial region in children;

Teaching and successful learning of the discipline «Pediatric Dentistry» is carried out on the basis of the knowledge and skills previously acquired by the students in the following disciplines:

**Medical and Biological Physics.** The main physical and chemical properties of dental materials. The main mechanical characteristics of the tooth, muscle and bone tissue. Basic concepts of functional and pathological dynamic static loading on the tooth tissues, restorations and the periodontium. Properties of the X-ray and laser radiation.

**Biological Chemistry.** Biochemistry of hard tissues of the tooth and jaw. Biochemical composition of saliva, the exchange of fluorine, calcium and phosphorus in the body. The role and function of vitamins.

**Medical Biology and General Genetics.** The basic laws of human embryonic development. Critical periods of the organism development and teratogenesis. Clinical manifestations of genetic diseases. The evolution of the maxillofacial region.

**Human anatomy.** Anatomical Terminology. The structure of the upper and lower jaws. The structure of the tooth. The development of the facial muscles, neck, dental, alveolar and basal arches. Structure and function of the periodontium. Temporomandibular joint: structure, function. Hard/soft palate: the structure, shape. Age differences in the anatomy of the oral cavity.

**Histology, cytology, embryology.** The development of the face and dentition system. General morphological characteristics of the teeth (enamel, dentin, pulp, periodontium, cement). A marginal periodontium: its structure, cellular composition. Dental alveoli: structure, functional characterization. Oral mucosa: histochemical and functional characterization.

**General Dentistry.** Application of medical instruments .Preparation and restoration of the hard dental tissues, instrumentation, materials and methods for endodontic dental treatment.

**Normal physiology.** Functional characteristics of organs and tissues of the maxillofacial region.

**Microbiology, virology, immunology.** Oral microflora; bioaenosis of over- and subgingival dental biofilm. Specific and nonspecific protection factors of the oral cavity. Methods of bacterial, fungal and viral diseases diagnosis.

**Pathological Anatomy.** Pathomorphology of dental diseases, periodontal bone and mucous membranes of the mouth.

**Pathological Physiology.** General teaching on birth defects. Fundamentals of pathological processes in the enamel, dentin, cementum, periodontal bone and mucous membranes.

**Pharmacology.** Medications for caries, pulp, periodontium, oral mucosa treatment in children. Local anesthesia, sedation, premedication, general anesthesia.

**As a result of studying the discipline «Pediatric Dentistry» the student should**

**know:**

- the basic concepts of organization of skilled surgical and therapeutic dental care of children;
- etiology, pathogenesis, diagnostic techniques, clinical manifestations, treatment and prevention of dental caries and it's complications, non-carious lesions, traumatic injuries of hard tooth tissues, periodontium and oral mucosa diseases in children;
- etiology, pathogenesis, diagnostic techniques, clinical manifestations, treatment and prevention of inflammatory diseases, traumatic injuries, congenital and acquired diseases maxillofacial region in children;

**be able to:**

- establish optimum contact with children, adolescents and their parents;
- provide positive psychological after impression of the child after a visit to the dentist;



- exercise complex diagnostic procedures in children with uncomplicated and complicated dental caries, non-carious lesions and dental trauma, periodontal disease and oral mucosa;
- justify and formulate a diagnosis of dental disease in children in accordance with the International Classification of Diseases (ICD -10);
- dissect cavities in primary and permanent teeth with immature roots with the characteristics of the materials used for the tooth restoration;
- perform vital and nonvital pulpotomy and pulpectomy;
- perform application, infiltration and regional anesthesia in the maxillofacial region in children;
- extract primary and permanent teeth in children;
- open subperiosteal abscess and drain the wound;
- carry out effective primary and secondary prevention of dental, periodontal and oral mucosa diseases.

**master:**

- methods of primary and secondary prevention of dental diseases, marginal periodontium and oral mucosa diseases, congenital and acquired pathology of the maxillofacial region in children;
- methods of restoration of primary and permanent teeth with incomplete root formation by various filling materials;
- methods of endodontic treatment of primary and permanent teeth with incomplete root formation using methods of apexogenesis and apexification;
- methods of application, infiltration and nerve block anesthesia in the maxillofacial region in children;
- methods of extraction of primary and permanent teeth in children;
- methods of primary surgical treatment of wounds of the maxillofacial region in children.

The structure of the curriculum in the educational discipline «Pediatric Dentistry»: «Pediatric therapeutic dentistry», «Pediatric Outpatient and Hospital Oral Surgery».

**Total number** of hours for the study of the discipline is 602 academic hours. Classroom hours according to the types of studies: lectures - 32 hours, practical classes - 327 hours, student independent work (self-study) - 243 hours.

Current assessment is carried out according to the syllabus of the specialty in the form of a credit (6, 8, 10 semester), graded credit (7 semester) and examination (9 semester).

Final assessment – state examination.

Form of higher education – full-time.

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

Code, name of the specialty	Semester	Number of academic hours					Form of current assessment
		total	in-class	including		out-of-class self-studies	
				lectures	practical classes		
1-79 01 07 «Stomatology»	<b>6</b>	110	73	8	65	37	credit
	<b>7</b>	116	73	8	65	43	graded credit
	<b>8</b>	120	74	8	66	46	credit
	<b>9</b>	132	62	8	54	70	exam
	<b>10</b>	124	77	-	77	47	credit
		<b>602</b>	<b>359</b>	<b>32</b>	<b>327</b>	<b>243</b>	

## THEMATIC PLAN

Section (topic) name	Number of class hours	
	lectures	practical (laboratory or seminars)
<b>1. Pediatric Therapeutic Dentistry</b>	<b>22</b>	<b>231</b>
1.1. Fundamentals of ethics in Pediatric Therapeutic Dentistry	-	5
1.2. Psychological, psychotherapeutic and pharmacological provision of the contact between the doctor and child	1	5
1.3. Means and methods to minimize pain during dental treatment of children	1	5
1.4. Anatomical and physiological features of the hard dental tissues structure in children at different ages. The diagnostic features of dental caries in children	-	5
1.5. Caries of primary teeth. Features, diagnosis, treatment and prevention	2	10
1.6. Caries of permanent teeth in children. Features, diagnosis, treatment and prevention	2	10
1.7. Anatomical, physiological and radiological features of the pulp and the periodontium structure in children at different ages. Patterns of the pulpitis clinical manifestations in different age periods	-	5
1.8. Pulpitis of primary teeth	1	10
1.9. Pulpitis of permanent teeth	1	10
1.10. Apical periodontitis of primary teeth	1	10
1.11. Apical periodontitis of permanent teeth.	1	15
1.12. Traumatic injuries of teeth in children.	2	10
1.13. Non-carious lesions of teeth in children	2	10
1.14. Anatomical, physiological and radiological features of the periodontium structure in children at different ages. Features of the etiology, pathogenesis, clinical course and treatment of gingivitis in children	-	12
1.15. Rapidly progressive periodontal diseases in children. Symptomatic periodontitis with systemic diseases (periodontal syndrome) in children	2	12
1.16. Acute and chronic recurrent herpetic stomatitis.	2	12
1.17. Oral mucosa lesions in children with viral diseases.	2	6
1.18. Oral manifestations of bacterial and fungal diseases in children	1	12
1.19. Traumatic injuries of the oral mucosa in children	-	6
1.20 Oral manifestations of drug, bacterial and other types of allergies in children	1	12
1.21 Diseases of the lips and tongue in children	-	7
1.22 Oral manifestations of somatic diseases in children	-	14
1.23 Tactics of the dentist in treatment of children of different ages	-	28
<b>2. Pediatric Outpatient and Hospital Oral Surgery</b>	<b>10</b>	<b>96</b>
2.1. Pain relief during surgical procedures in children. Tooth extraction	1	10

Section (topic) name	Number of class hours	
	lectures	practical (laboratory or seminars)
2.2. Features of inflammatory diseases of the maxillofacial region in children	1	5
2.3. Osteomyelitis of the jaws in children	-	5
2.4. Odontogenic sinusitis in children. Furuncle of the face in children	-	6
2.5. Lymphadenitis, abscess, phlegmon, and actinomycosis of the maxillofacial region in children	-	6
2.6. Inflammatory diseases of the salivary glands in children	2	6
2.7. Disorders of the temporomandibular joint in children		6
2.8. Congenital malformations of the maxillofacial region in children	2	12
2.9. Traumatic injuries of soft tissues of the face, teeth and facial bones in children	2	6
2.10. Congenital anomalies of the lips and tongue frenulum in children. Anomalies of tooth eruption and number of teeth.	2	6
2.11. Benign tumors and tumor-like formation of the soft tissues in the maxillofacial region in children	-	14
2.12. Odontogenic tumors of the facial bones in children. Odontogenic jaw cysts in children Benign tumors and tumor-like formation of the salivary glands in children	-	7
2.13. Malignant tumors of the maxillofacial area and neck in children	-	7
<b>Total hours</b>	<b>32</b>	<b>327</b>



## **CONTENT OF THE EDUCATIONAL MATERIAL**

### **1. PEDIATRIC THERAPEUTIC DENTISTRY**

#### **1.1. Fundamentals of ethics in Pediatric Therapeutic Dentistry**

The objectives of pediatric dental treatment. Treatment participants: the role, relationships. Behavior of children and parents at the dental office in the process of treatment. Assessment of co-operation with the child and the choice of strategy to control dental patients' behavior.

Clinical work with patients during preventive examination: clarification of complaints and anamnesis of the disease; planning of examination; conducting a clinical examination; identification of risk factors and oral pathology; interpretation of the results of examination; determination of the type of behavior of the child and his parents.

#### **1.2. Psychological, psychotherapeutic and pharmacological provision of the contact between the doctor and the child**

Formation of the children behavioral responses at the dental office. The concept of the stimulus, the threshold of sensitivity needs of the child, emotional reactions, anxiety, coping strategies for children and parents. Age and individual characteristics of children and adolescents, mental development and behavior. Psychological methods to create a positive attitude towards dentistry and appropriate behavior at the dental office of children and adolescents who are able and willing to cooperate, anxious children and children who are not able to cooperate. Features of dental care for children with physical symptoms, with impaired mental development and disabilities.

Clinical work with patients during preventive examination: clarification of complaints and anamnesis of the disease; planning of examination; conducting a clinical examination; identification of risk factors and oral pathology; interpretation of the results of examination; use psychological methods for formation positive response on treatment and adequate behavior reaction in children.

#### **1.3. Means and methods to minimize pain during dental treatment of children**

Measures to minimize pain in children during dental treatment. Features selection and implementation of local anesthesia in children on therapeutic dental examination. Cognitive sedation. Methods of work with children who are not able to co-operate: physical immobilization, deep sedation and general anesthesia.

Clinical work with patients during preventive examination: clarification of complaints and anamnesis of the disease; planning of examination; conducting a clinical examination; identification of risk factors and oral pathology; interpretation of the results of examination; use psychological methods for formation positive response on treatment and adequate behavior reaction in children.

#### **1.4. Anatomical and physiological features of the hard dental tissues structure in children at different ages. The diagnostic features of dental caries in children**

Features of hard tissue structure in primary and permanent teeth during root formation in children and their relation to the features of dental caries in children. Tertiary mineralization: the terms and the factors influencing it. The stages of root formation. Growth zone: structure, functions, features, normal and pathological conditions. The mechanism, types and terms of the primary teeth root resorption. Basic and additional methods of dental caries diagnosis: a survey, inspection, probing, transillumination, FOTI, laser fluorescence, thermal probe, electrometry, electric pulp test, vital staining (especially use in pediatric practice).

Clinical work with patients during preventive examination: clarification of complaints and anamnesis of the disease; planning of examination; conducting a clinical examination; identification of risk factors and oral pathology; interpretation of the results of examination; conducting basic and additional methods of dental caries diagnosis.

#### **1.5. Caries of primary teeth**

Features of clinical manifestations of dental caries in primary teeth. Clinical picture of dental caries in primary teeth on the level of a spot, moderate and deep caries depending on the clinical course; differential diagnosis. The causes and characteristics of early childhood caries development. The choice of methods of treatment and filling material depending on the caries activity, localization of cavity, age of the patient. Features of treatment of early childhood caries (the use of chemical agents, atraumatic restoration, minimal invasion).

Clinical work with patients with dental caries: clarification of complaints and anamnesis of the disease; planning of examination; conducting a clinical examination; identification of risk factors of dental caries; choice of the method of treatment.

#### **1.6. Caries of permanent teeth in children**

Characteristics of the first period after eruption of permanent teeth. The clinical course of caries in the period of immature enamel. The clinical course of dental caries in first permanent molars during enamel mineralization in children with different levels of caries activity and enamel mineralization. Remineralizing therapy (medications, procedures, course, monitoring of the treatment effectiveness). Invasive sealing as a method of treatment of occlusal initial caries (stages, filling materials). The techniques of preventive and delayed filling. Modern approaches to choice of filling materials in permanent teeth in children depending on the stage of tooth formation, caries activity. Regular check-ups of children with caries.

Clinical work with patients with dental caries of permanent teeth: clarification of complaints and anamnesis of the disease; planning of examination; conducting a clinical examination; use modern methods of treatment and prevention.

### **1.7. Anatomical, physiological and radiological features of the pulp and the periodontium structure in children at different ages. Patterns of the pulpitis clinical manifestations in different age periods**

Features of the primary teeth pulp structure during the formation and resorption of roots. Features of the permanent teeth pulp structure during the formation of roots.

Features of the structure of the children's apical periodontium. The influence of pathogenic factors on the tooth germ development at various stages of its formation. Radiological characteristics of periodontium at different ages.

Features of etiology and pathogenesis of pulpitis in children. Methods of diagnosis of pulpitis in children. The clinical course of acute, chronic pulpitis and exacerbation of chronic pulpitis in children. The differential diagnosis of various forms of pulpitis.

Clinical work with patients with pulpitis of permanent teeth: clarification of complaints and anamnesis of the disease; planning of examination; conducting a clinical examination; use basic and additional methods of diagnostics of pulpitis.

### **1.8. Pulpitis of primary teeth**

The indications for the choice of method of treatment of primary teeth pulpitis. Planning of treatment, techniques, analysis of the treatment effectiveness, prevention of periodontitis as a complication of treatment of pulpitis. Medications used in the treatment of pulpitis. Indications and contraindications to conservative methods. Stages of the conservative methods. Indications for surgical methods of treatment. Stages of the non-vital pulpotomy. Stages and features of formokrezol-pulpotomy. Alternative methods of vital pulpotomy. Features of pulpectomy in primary teeth. Medications for pulp devitalization. Criteria for treatment evaluation. Pastes for root canal filling. Prognosis of outcome. Clinical examination.

Clinical work with patients with pulpitis of primary teeth: clarification of complaints and anamnesis of the disease; planning of examination; conducting a clinical examination; choice of the method of treatment of pulpitis of primary teeth, conducting treatment.

### **1.9. Pulpitis of permanent teeth in children**

Indications and contraindications to conservative methods of treatment. The method of indirect and direct pulp capping, the biological method. Calcium-containing medications: composition, properties and indications for use. Stages of the conservative methods of treatment. Indications for surgical methods of treatment. Stages of the vital pulpotomy. Stages of the pulpectomy. Criteria for evaluation of short-and long-term results of treatment. Clinical supervision. Prevention of complications.

Clinical work with patients with pulpitis of primary teeth: clarification of complaints and anamnesis of the disease; planning of examination; conducting a clinical examination; choice of the method of treatment of pulpitis of permanent teeth.

### **1.10. Apical periodontitis of primary teeth.**

Features of the etiology and pathogenesis of apical periodontitis of primary teeth. The clinical course of acute and chronic apical periodontitis of primary teeth.



Radiographic examination of a child with apical periodontitis, radiological signs of pathological changes in periodontium. Diagnosis, differential diagnosis of acute and chronic periodontitis of primary teeth.

Effect of acute and chronic periodontitis on the state of the adjacent tissue and other organs and systems.

Emergency care for children with apical periodontitis of primary teeth. Stages of treatment, technique, necessary tools and medications. The limits of conservative treatment and indications for extraction of primary teeth. The criteria for the assessment of effectiveness of treatment of periodontitis of primary teeth. Prediction of disease outcome. Prevention.

Clinical work with patients with periodontitis of primary teeth: clarification of complaints and anamnesis of the disease; planning of examination; conducting a clinical examination; interpretation of the results of examination; use basic and additional methods of diagnostics of apical periodontitis; choice of the method of treatment of apical periodontitis of primary teeth, conducting treatment.

### **1.11. Apical periodontitis of permanent teeth in children.**

Features of etiology and pathogenesis of apical periodontitis of permanent teeth with incomplete root formation. The clinical course of acute and chronic apical periodontitis of permanent teeth with incomplete root formation. Radiographic diagnosis of pathological changes in periodontal tooth. Diagnosis, differential diagnosis of acute and chronic periodontitis of permanent teeth with incomplete root formation. Methods of treatment of apical periodontitis of the permanent teeth in children. Factors determining the choice of method of treatment. Features of the endodontic treatment of permanent teeth with incomplete root formation and saved growth zone. The outcome of treatment. Features of the endodontic treatment of permanent teeth with incomplete root formation in case of the growth zone death. Prediction of outcome of treatment. Treatment of acute and exacerbated chronic periodontitis of permanent teeth with incomplete root formation in children. Emergency care of children with periodontitis of permanent teeth with incomplete root formation. Following up of children after treatment of periodontitis of permanent teeth with incomplete root formation: the goal, time of observation.

Clinical work with children with periodontitis of permanent teeth: clarification of complaints and anamnesis of the disease; planning of examination; conducting a clinical examination; interpretation of the results of examination; use basic and additional methods of diagnostics of apical periodontitis; choice of the method of treatment of apical periodontitis of permanent teeth, conducting treatment. Organization of regular check-ups of children after treatment of periodontitis of permanent teeth with incomplete root formation.

### **1.12. Traumatic injuries of teeth in children.**

Features of examination of children with traumatic injuries of teeth. Concussion of the tooth. Clinical picture, diagnosis, differential diagnosis. Methods of treatment depending on the age.

Crown fracture. Clinical picture, diagnosis, methods of treatment of crown fractures depending on the child age, complications, treatment outcome. Luxation of the tooth. Clinical picture, diagnosis, differential diagnosis, methods of treatment



depending on the age, complications. Root fracture. Clinical picture, diagnosis, differential diagnosis, methods of treatment, complications. The rehabilitation of children with dental trauma.

Clinical work with children with traumatic injuries of teeth: clarification of complaints and anamnesis of the disease; planning of examination; conducting a clinical examination; interpretation of the results of examination; use basic and additional methods of diagnostics of trauma of teeth; choice of the method of treatment of traumatic injuries of teeth, conducting treatment. Organization of regular check-ups of children after traumatic injuries of teeth.

### **1.13. Non-carious lesions of teeth in children**

Classification of non-carious lesions of dental hard tissues. The etiology, clinical picture, differential diagnosis, treatment and prevention of violations of tooth formation, mottled teeth, hereditary hard tissues lesions (amelogenesis imperfecta, dentinogenesis imperfecta, odontogenesis imperfecta, dentin dysplasia, shell teeth), and other developmental disorders of the teeth (congenital tooth discoloration). Tooth erosion.

Clinical work with children with non-carious lesions of teeth: clarification of complaints and anamnesis of the disease; planning of examination; conducting a clinical examination; interpretation of the results of examination; use basic and additional methods of diagnostics of non-carious lesions of teeth; choice of the method of treatment of non-carious lesions of teeth, conducting treatment. Organization of regular check-ups of children with non-carious lesions of teeth.

### **1.14. Anatomical, physiological and radiological features of the structure of periodontium in children at different ages. Features of etiology, pathogenesis, clinical course and treatment of gingivitis in children**

Features of the structure of periodontium in children at different ages. Clinical manifestations and treatment of acute and chronic simple marginal, hyperplastic and desquamative gingivitis in children. Gingival recession in children, etiology, clinical picture, treatment.

Clinical work with children with gingivitis and gingival recession: clarification of complaints and anamnesis of the disease; planning of examination; conducting a clinical examination; interpretation of the results of examination; use basic and additional methods of diagnostics of gingivitis and gingival recession; choice of the method of treatment of gingivitis and gingival recession, conducting treatment. Organization of regular check-ups of children with gingivitis and gingival recession.

### **1.15. Rapidly progressing periodontitis in children. Symptomatic periodontitis with systemic diseases (periodontal syndrome) in children**

Etiology, pathogenesis, clinical and radiological signs of pubertal and prepubertal periodontitis. The role of microbial factors in the aggressive periodontitis development in children and adolescents. Treatment and prevention of prepubertal and pubertal periodontitis. Prognosis of the disease. Symptomatic periodontitis (periodontal syndrome) in diabetes mellitus, X-histiocytosis, Papillon-Lefevre syndrome, hypoglobulinemia, hypophosphatasia, hereditary neutropenia in children. Clinical manifestations. The role of the dentist in diagnosis and treatment.

Clinical work with children with rapidly progressing periodontitis: clarification of complaints and anamnesis of the disease; planning of examination; conducting a clinical examination; interpretation of the results of examination; use basic and additional methods of diagnostics of rapidly progressing periodontitis; choice of the method of treatment of rapidly progressing periodontitis, conducting treatment. Organization of regular check-ups of children with rapidly progressing periodontitis.

#### **1.16. Acute and chronic recurrent herpetic stomatitis**

Etiology, pathogenesis, clinical manifestations of acute and chronic recurrent herpetic stomatitis in children. Modern methods of diagnosis. The clinical picture and treatment of acute herpetic stomatitis in children "at risk" and in newborns. Prediction and prevention of acute herpetic stomatitis transition to a chronic recurrent form. Anti-epidemic measures at acute herpetic stomatitis in children. Treatment and prevention of chronic recurrent forms of herpes infection in children in the acute and interrecurrent period. Clinical examination. Regular check-ups of children with acute and chronic recurrent herpetic stomatitis.

Clinical work with children with acute and chronic recurrent herpetic stomatitis: clarification of complaints and anamnesis of the disease; planning of examination; conducting a clinical examination; interpretation of the results of examination; use basic and additional methods of diagnostics; prediction and prevention of acute herpetic stomatitis transition to a chronic recurrent form; conducting treatment.

#### **1.17. Oral mucosa lesions in the children with viral diseases**

Etiology, clinical manifestations, diagnosis of the oral mucosa lesions in children with acute respiratory viral infections (influenza, parainfluenza, adenovirus), enterovirus infection with oral manifestations, oral mucosa lesions caused by the virus varicella-zoster, measles, rubella, infectious mononucleosis, with acquired immunodeficiency syndrome. The role of a dentist in treatment oral mucosa lesions in the children with viral diseases. Prevention of HIV infections in dental practical work.

Clinical work with children with viral diseases with oral mucosa lesions: clarification of complaints and anamnesis of the disease; planning of examination; conducting a clinical examination; interpretation of the results of examination; diagnosis and role of the dentist in treatment of children with viral diseases with oral mucosa lesions.

#### **1.18. Oral manifestations of bacterial and fungal diseases in children**

Etiology, clinical manifestations, diagnosis and treatment of necrotizing ulcerative gingivostomatitis in children. Treatment and prevention of recurrence of necrotizing ulcerative gingivostomatitis. Regular check-ups of children with necrotizing ulcerative gingivostomatitis.

Etiology, clinical manifestations, diagnosis of lesions of the oral mucosa in children with diphtheria, scarlet fever, syphilis. The role of a dentist in treatment.

Etiology, clinical manifestations, diagnosis of the oral mucosa lesions in children with fungal diseases. Physiological characteristics of the structure of the oral mucosa in children and the factors contributing to the development of candidiasis in children and adolescents, the ways of infection transmission. Features of clinical

course of oral mucosa candidiasis in children with diabetes mellitus, acute leukemia, HIV-infection. Prevention and treatment of fungal infections in children.

Clinical work with children with oral manifestations of bacterial and fungal diseases: clarification of complaints and anamnesis of the disease; planning of examination; conducting a clinical examination; interpretation of the results of examination; diagnosis and role of the dentist in treatment of children with oral manifestations of bacterial and fungal diseases.

### **1.19. Traumatic injuries of the oral mucosa in children**

Clinical manifestations, diagnosis and treatment of acute and chronic mechanical trauma, thermal and electrical, chemical and radiation oral mucosa injuries in children. Urgent care in chemical burns and poisoning. Antidotal therapy.

### **1.20. Drug, bacterial and other allergic manifestations in the oral cavity in children**

Features of etiology, pathogenesis, clinical manifestations, diagnosis and treatment of chronic recurrent aphthous stomatitis in children, exudative erythema multiforme, Stevens-Johnson syndrome and Lyell's disease, Behcet's syndrome, drug stomatitis. Prevention of allergic diseases in children.

### **1.21. Diseases of the lips and tongue in children**

Features of etiology, pathogenesis, clinical manifestations, diagnosis and treatment of atopic and eczematous, actinic and weather induced, exfoliative and glandular cheilitis in children.

Features of etiology, pathogenesis, clinical manifestations, diagnosis and treatment of desquamative, folded, diamond-shaped and "hairy" glossitis in children.

### **1.22. Somatic diseases manifestation in the oral cavity of children**

Features of oral manifestations of diseases of the gastrointestinal tract, excretory system, hemorrhagic diathesis, cardiovascular system, endocrine system in children. Features of dental care for children with somatic diseases.

### **1.23. Tactics of the dentist in the treatment of children of different ages**

Identification of risk factors for major dental diseases, preventive and therapeutic measures in children at the age from 0 to 3 years. Early childhood caries: prevention, treatment methods, the choice of filling materials. Features of clinical work with children at the age from 3 to 6 years: diagnosis of developing disease, choice of means and methods of oral care, prevention and treatment of diseases of the teeth hard tissues, periodontal tissues and oral mucosa. Features of clinical work with children at the age from 6 to 12 years and adolescents from 12 to 18 years depending on risk factors for oral diseases and health groups.

## **2. Pediatric Outpatient and Hospital Oral Surgery**

### **2.1. Pain relief during surgical procedures in children. Tooth extraction in children**

Types of local anesthesia in pediatric dentistry (application, infiltration, nerve block). Indications, techniques of conducting anesthesia. The rules of the carrying out anesthesia injection. Anesthetics, indications for use. General complications of injection anesthesia (syncope, collapse, anaphylaxis). Local injection anesthesia complications (hematoma, inflammatory mandible contracture, infection, needle



fracture, soft tissue necrosis, traumatic neuritis, etc.). Prevention of complications and urgent care for complications.

Narcosis in pediatric dentistry. Types of narcosis. Indications and contraindications for planned and emergency narcosis in children. Preparing a child for narcosis. The examination of the child during preparation for narcosis. Inhaled and non-inhaled narcosis. Premedication, sedation of the child. Principles of conduction. Medications. Features of resuscitation in children.

Tooth extraction in children. Indications, contraindications, specific features of extraction technique and prevention of complications. Forceps for tooth extraction. Complications during and after tooth extraction in children.

Clinical work with patients: clarification of complaints and anamnesis of the disease; planning of examination; conducting of clinical and Radiographic examination; interpretation of the results of examination; choice of the method of anesthesia, choice of the indications and contraindications for narcosis, for planned extraction of the teeth, conducting of the tooth extraction, prevention of complications.

## **2.2. Features of inflammatory diseases of the maxillofacial region in children**

Features of the anatomical structure of the teeth, jaws, lymph nodes, affecting the course of odontogenic inflammatory diseases in children. Physiological characteristics of the child's body, affecting the course of inflammatory diseases. The ways of spread of odontogenic infections (lymphogenous, hematogenous, at a stretch) from the teeth of the upper and lower jaws. Etiology, pathogenesis, clinical features, diagnosis and treatment of acute purulent periostitis of jaws in children. Etiology, pathogenesis, clinical and radiologic features, diagnosis and treatment of chronic periostitis of jaws in children. Indications for hospitalization of children with acute and chronic periostitis.

Clinical work with children: clarification of complaints and anamnesis of the disease; planning of examination; conducting of clinical and Radiographic examination; interpretation of the results of examination; diagnosis; choice of the method of treatment. Conduction of all stages of treatment.

### **2.3. Osteomyelitis of the jaws in children**

*Acute osteomyelitis of the jaws in children.* Etiology, pathogenesis, clinical features, diagnosis, treatment and prevention of complications of acute odontogenic, acute haematogenic and acute traumatic osteomyelitis in children. Indications for hospitalization of children with acute osteomyelitis.

*Chronic osteomyelitis of the jaws in children.* Etiology, pathogenesis, clinical and radiologic features, diagnosis and treatment of children with disruptive, destructive-productive and productive (hyperplastic) form of chronic odontogenic osteomyelitis of the jaws. Chronic traumatic and chronic haematogenic osteomyelitis of jaws in children. Complications and outcome of chronic osteomyelitis of the jaws in children. Medical rehabilitation and organization of regular check-ups of children with chronic osteomyelitis of the jaws.

Clinical work with children: clarification of complaints and anamnesis of the disease; planning of examination; conducting of clinical and radiographic



examination; interpretation of the results of examination; diagnosis; choice of the method of treatment. Conduction of all stages of treatment. Organization of regular check-ups of children with chronic osteomyelitis of the jaws.

#### **2.4. Odontogenic sinusitis in children. Furuncle of the face in children**

Acute and chronic odontogenic maxillary sinusitis in children. Etiology, clinical features, diagnosis and treatment. Clinical manifestations and tactics of a dentist in case of the sinus floor opening during tooth extraction. Indications for hospitalization of children with odontogenic sinusitis.

Furuncle of the face in children. Etiology, pathogenesis, clinical features and diagnosis of furuncle at the stage of infiltration and abscess formation. Treatment of furuncle of the face in children. Complications and prevention of complications. Indications for hospitalization.

Clinical work with children: clarification of complaints and anamnesis of the disease; planning of examination; conducting of clinical and radiographic examination; interpretation of the results of examination; diagnosis; choice of the method of treatment. Conduction of all stages of treatment. Organization of regular check-ups of children with chronic odontogenic maxillary sinusitis.

#### **2.5. Lymphadenitis, abscess, phlegmon and actinomycosis of the maxillofacial region in children**

Etiology, pathogenesis and classification lymphadenitis of the maxillofacial region in children.

The clinic, diagnosis of acute, chronic and specific lymphadenitis of the maxillofacial region in children. Differential diagnosis and treatment of lymphadenitis in children.

Etiology, classification, clinical features, diagnosis and treatment of abscess and phlegmon in children. Indications for hospitalization of children with lymphadenitis, abscess and phlegmon.

Etiology, pathogenesis and classification of actinomycosis in the maxillofacial region in children. Clinical features and diagnostics of subcutaneous actinomycosis, actinomycosis of lymph nodes and the periosteum of the facial bones. Treatment and prevention of actinomycosis of the maxillofacial region in children.

Clinical work with children: clarification of complaints and anamnesis of the disease; planning of examination; conducting of clinical and radiographic examination; interpretation of the results of examination; diagnosis; choice of the method of treatment. Conduction of all stages of treatment.

#### **2.6. Inflammatory diseases of the salivary glands in children**

Classification of inflammatory diseases of salivary glands in children. Methods of examination of children with inflammatory diseases of salivary glands. Etiopathogenesis, clinical features, diagnosis and treatment of epidemic and non-epidemic parotitis, influenza sialadenitis in children. Etiopathogenesis, clinical features, diagnosis and treatment of chronic parenchymal parotitis at the stage of exacerbation and in remission. Etiopathogenesis, clinical features, diagnosis and treatment of children with ptyalolithiasis. Organization of regular check-ups of children with inflammatory diseases of the salivary glands.

Clinical work with children: clarification of complaints and anamnesis of the disease; planning of examination; conducting of clinical and radiographic examination; interpretation of the results of examination; diagnosis; choice of the method of treatment. Conduction of all stages of treatment. Organization of regular check-ups of children with chronic inflammatory diseases of the salivary glands.

### **2.7. Disorders of the temporomandibular joint in children**

Features of the structure of the temporomandibular joint (TMJ) in children at different ages.

The classification of diseases of the temporomandibular joint in children and adolescents.

TMJ arthritis in children and adolescents. Classification, etiology, clinical features, diagnosis, treatment.

TMJ secondary osteoarthritis deformans in children and adolescents. Etiology, pathogenesis, clinical features, diagnosis and treatment.

Bony ankylosis of TMJ in children and adolescents. Nearthrosis. Etiology, pathogenesis, clinical features, diagnosis and treatment.

Etiology and pathogenesis of functional disorders of TMJ in adolescents. Junior TMJ dysfunction. The clinical features, diagnosis and treatment.

Inflammatory and degenerative diseases of the TMJ. The clinical features, diagnosis and treatment.

TMJ dislocations in children and adolescents. Classification, clinical features, diagnostics.

Clinical work with children: clarification of complaints and anamnesis of the disease; planning of examination; conducting of clinical and radiographic examination; interpretation of the results of examination; diagnosis; choice of the method of treatment. Organization of regular check-ups of children with ankylosis of TMJ.

### **2.8. Congenital malformations of the maxillofacial region in children**

Etiology of congenital malformations in humans (exogenous factors, endogenous factors). The pathogenesis and prevention of congenital malformations on the face. Congenital systemic malformations of face and neck (syndromes). The clinical features and treatment of certain syndromes.

Classification of cleft lip and cleft palate.

Clinical features (anatomical and functional abnormalities) of various forms of cleft lip and cleft palate.

Features and methods of feeding and care of children with cleft lip and cleft palate.

Chiloplasty and uraniscoplasty. Objectives, methods and the age indications for surgery. Preparation of patients for surgery. Medical rehabilitation of children with cleft lip and cleft palate. Features of organization of regular check-ups of children with cleft lip and cleft palate.

Clinical work with children: clarification of complaints and anamnesis of the disease; planning of examination; conducting of clinical and radiographic examination; interpretation of the results of examination; diagnosis; choice of the

method of treatment. Conduction of all stages of treatment. Organization of regular check-ups of children with congenital malformations of the maxillofacial region.

### **2.9. Traumatic injury of facial bones, soft tissues of maxillofacial area and teeth in children**

Clinical and radiographic features, diagnosis and treatment of the upper and lower jaws fractures in children. Clinical and radiographic features, diagnosis and treatment of the zygomatic bone and arch fractures in children. Clinical and radiographic features, diagnosis and treatment of gunshot fractures of the facial bones in children.

Urgent care of children with maxillofacial trauma (prevention of shock, hemorrhage, asphyxia).

Traumatic osteomyelitis of the jaws in children. Features of clinical course, diagnosis, prevention and treatment. Organization of regular check-ups of children with fractures of the facial bones.

Clinical work with children: clarification of complaints and anamnesis of the disease; planning of examination; conducting of clinical and radiographic examination; interpretation of the results of examination; diagnosis; choice of the method of treatment. Conduction of all stages of treatment. Organization of regular check-ups of children with fractures of the facial bones.

Traumatic injuries of soft tissue of the maxillofacial area and teeth in children. Classification and clinical features of traumatic injuries of soft tissue of the maxillofacial area in children.

Open and closed mechanical injury of soft tissues of the maxillofacial area in children. Clinical features, diagnosis and treatment.

Burns and frostbites of the maxillofacial area in children. Clinical features, diagnosis and treatment.

Classification and clinical features of trauma of teeth in children. Contusions, luxation and fractures of teeth in children. Clinical features, diagnosis and treatment.

Clinical work with children: clarification of complaints and anamnesis of the disease; planning of examination; conducting of clinical and radiographic examination; interpretation of the results of examination; diagnosis; choice of the method of treatment. Conduction of all stages of treatment. Organization of regular check-ups of children with trauma of teeth.

### **2.10. Congenital anomalies of the lips and tongue frenulum in children. Shallow oral vestibule. Abnormalities in tooth eruption and in the number of teeth.**

Short frenulum of the upper and lower lips. Clinical features, indications for surgery. Terms and methods of surgical treatment. Shallow oral vestibule. Clinical features, indications for surgery, the vestibuloplasty technique. Short frenulum of tongue. Clinical features and indications for surgery. Terms and methods of surgical treatment. Comprehensive treatment of children with a short frenulum of the lips and tongue, shallow oral vestibule.

Abnormalities in tooth eruption and in the number of teeth in children. Etiology, clinical features, diagnosis and treatment.



Clinical work with children: clarification of complaints and anamnesis of the disease; planning of examination; conducting of clinical and radiographic examination; interpretation of the results of examination; diagnosis; choice of the method of treatment. Conduction of all stages of treatment.

### **2.11. Benign tumors and tumor-like formation of the soft tissues in the maxillofacial area in children. Benign osteogenic and non-osteogenic tumors and tumor-like formation of the facial bones in children**

The classification of benign soft tissue tumors of the maxillofacial area in children. Soft tissue tumors of ectodermal nature (papilloma, nevus, epiteloma, atheroma, etc.) in the maxillofacial area. Soft tissue tumors of mesodermal origin (fibroma, myoma, lipoma, gingival fibromatosis, neurofibroma, etc.) in the maxillofacial area. The clinical features, diagnosis and treatment.

Vascular tumors of the maxillofacial area in children. Hemangioma. Classification, clinical features, diagnosis and treatment of facial hemangioma in children according to nosology.

Lymphangioma of the maxillofacial area and neck in children. Classification, clinical features, diagnosis and treatment. Organization of regular check-ups of children with benign tumors of soft tissues of maxillofacial area.

Classification of the tumors of facial bones in children (A.A. Kolesov). Osteoblastoclastoma jaws. Classification, clinical features, diagnosis and treatment of central osteoblastoclastoma in children.

Chondroma of jaws. Classification, clinical features, diagnosis and treatment.

Osteoma of jaws. Classification, clinical features, diagnosis and treatment. Fibrous dysplasia of the facial bones. Cherubism: classification, clinical features, diagnosis and treatment. Fibroma of the facial bones: clinical features, diagnosis and treatment.

Intraosseous hemangioma of the facial bones. Myxoma of the facial bones. The clinical features, diagnosis and treatment.

Organization of regular check-ups and rehabilitation of children with benign tumors of the facial bones.

Clinical work with children: clarification of complaints and anamnesis of the disease; planning of examination; conducting of clinical and radiographic examination; interpretation of the results of examination; diagnosis; choice of the method of treatment. Conduction of all stages of treatment. Organization of regular check-ups of children with benign tumors and tumor-like formation of the soft tissues in the maxillofacial area, benign osteogenic and non-osteogenic tumors and tumor-like formation of the facial bones.

### **2.12. Odontogenic tumors of the facial bones in children. Odontogenic jaw cysts in children. Benign tumors and tumor-like formation of the salivary glands in children**

The classification of odontogenic tumors and tumor-like formations of the maxillofacial region (I.I. Yermolayeva).

Ameloblastoma (adamantinoma) in children. Odontogenic cysts (follicular, primary cysts or keratocysts, eruption cyst). Clinical features, diagnosis, differential diagnosis and treatment in children.



Cementoma, hard odontoma in children. The clinical features, diagnosis and treatment.

Epulis (epulide). Classification, clinical features, diagnosis and treatment in children.

Odontogenic jaw cysts in children. Pathogenesis, clinical and radiologic features, diagnostics and treatment.

Classification of odontogenic cysts in children. Etiology, pathogenesis, clinical features, differential diagnosis of radicular, paradental, dentigerous and follicular cysts.

Etiology, pathogenesis, clinical features, differential diagnosis of primary and eruption cysts.

Indications for cystotomy and cystectomy. The steps and techniques of cystotomy and cystectomy. Rehabilitation of children with the jaw odontogenic cysts.

Clinical work with children: clarification of complaints and anamnesis of the disease; planning of examination; conducting of clinical and radiographic examination; interpretation of the results of examination; diagnosis; choice of the method of treatment. Conduction of all stages of treatment. Organization of regular check-ups of children with odontogenic jaw cysts.

Benign tumors of the salivary glands in children (adenoma, adenolymphoma, mixed tumor). Cysts of the salivary glands in children. The etiology, clinical features, diagnosis and treatment.

Clinical work with children: clarification of complaints and anamnesis of the disease; planning of examination; conducting of clinical and radiographic examination; interpretation of the results of examination; diagnosis; choice of the method of treatment. Conduction of all stages of treatment. Organization of regular check-ups of children with odontogenic tumors of the facial bones and benign tumors of the salivary glands.

### **2.13. Malignant tumors of the maxillofacial area and neck in children**

Classification of malignant tumors of the maxillofacial area and neck in children. Malignant melanoma. Clinical features, early diagnosis and treatment regimen.

Hodgkin's disease, lymphosarcoma. Clinical features, methods of diagnosis, differential diagnosis and the treatment regimen.

Adenoid cystic carcinoma (cylindroma), mucoepidermoid carcinoma of salivary glands. Clinical features, early diagnosis and treatment regimen.

Osteogenic sarcoma and chondrosarcoma of jaws in children. Clinical features, early diagnosis and a treatment regimen.

Ewing's sarcoma and reticular sarcoma of the facial bones in children. Clinical features, early diagnosis and a treatment regimen.

Cancer alertness and organization of regular check-ups of children with malignant tumors of the maxillofacial region.

Clinical work with children: clarification of complaints and anamnesis of the disease; planning of examination; conducting of clinical and radiographic examination; interpretation of the results of examination; preliminary diagnosis.

Organization of regular check-ups of children with malignant tumors of the maxillofacial region and neck.

## EDUCATIONAL DISCIPLINE CURRICULAR CHART

Section, topic #	Section (topic) name	number of hours		Self-studies	Equipment	Form of control
		lectures	practical			
	<b>6 semester</b>					
1.1	Fundamentals of ethics in Pediatric Therapeutic Dentistry	-	5	3	1,2,3	1.1,1.3,2.1,2.4,3.1,4.1
1.2	Psychological, psychotherapeutic and pharmacological provision of the contact between the doctor and child	1	5	4	1,2,3	1.1,1.3,2.1,2.4,3.1,4.1
1.3	Means and methods to minimize pain during dental treatment of children	1	5	4	1,2,3	1.1,1.3,2.1,2.4,3.1,4.1
1.4	Anatomical and physiological features of the hard dental tissues structure in children at different ages. The diagnostic features of dental caries in children	-	5	4	1,2,3	1.1,1.3,2.1,2.4,3.1,4.1
1.5	Caries of primary teeth. Features, diagnosis, treatment and prevention	2	10	5	1,2,3	1.1,1.3,2.1,2.4,3.1,4.1, 5.1
1.6	Caries of permanent teeth in children. Features, diagnosis, treatment and prevention	2	10	5	1,2,3	1.1,1.2,1.3,2.1,2.4,3.1, 4.1
1.7	Anatomical, physiological and radiological features of the pulp and the periodontium structure in children at different ages. Patterns of the pulpitis clinical manifestations in different age periods	-	5	4	1,2,3	1.1,1.3,2.1,2.4,3.1,4.1
1.8	Pulpitis of primary teeth	1	10	4	1,2,3	1.1,1.3,2.1,2.4,3.1,4.1
1.9	Pulpitis of permanent teeth	1	10	4	1,2,3	1.1,1.3,2.1,2.4,3.1,4.1
	<b>7 semester</b>					
1.10	Apical periodontitis of primary teeth	1	10	6	1,2,3	1.1,1.3,2.1,2.4,3.1,4.1
1.11	Apical periodontitis of permanent teeth.	1	15	7	1,2,3	1.1,1.3,2.1,2.4,3.1,4.1



1.12	Traumatic injuries of teeth in children.	2	10	6	1,2,3	1.1,1.3,2.1,2.4,3.1,4.1
1.13	Non-carious lesions of teeth in children	2	10	6	1,2,3	1.1,1.3,2.1,2.4,3.1, 4.1
2.1	Pain relief during surgical procedures in children. Tooth extraction	1	10	6	1,2,3	1.1,1.3,1.4,2.1,2.4,3.1, 4.1,5.1
2.2	Features of inflammatory diseases of the maxillofacial region in children	1	5	6	1,2,3	1.1,1.3,1.4,2.1,2.4,3.1, 4.1
2.3	Osteomyelitis of the jaws in children	-	5	6	1,2,3	1.1,1.3,1.4,2.1,2.4,3.1, 4.1
<b>8 semester</b>						
1.14	Anatomical, physiological and radiological features of the periodontium structure in children at different ages. Features of the etiology, pathogenesis, clinical course and treatment of gingivitis in children	-	12	5	1,2,3	1.1,1.2,1.3,1.4,2.1,2.4, 3.1,4.1
1.15	Rapidly progressing periodontal diseases in children. Symptomatic periodontitis with systemic diseases (periodontal syndrome) in children	2	12	6	1,2,3	1.1,1.3,1.4,2.1,2.4,3.1, 4.1
1.16	Acute and chronic recurrent herpetic stomatitis	2	12	6	1,2,3	1.1,1.3,1.4,2.1,2.3,2.4, 3.1, 4.1
1.17	Oral mucosa lesions in children with viral diseases.	2	6	5	1,2,3	1.1,1.3,1.4,2.1,2.4,3.1, 4.1
2.4	Odontogenic sinusitis in children. Furuncle of the face in children	-	6	6	1,2,3	1.1,1.3,1.4,2.1,2.4,3.1, 4.1
2.5	Lymphadenitis, abscess, phlegmon, and actinomycosis of the maxillofacial region in children	-	6	6	1,2,3	1.1,1.3,1.4,2.1,2.4,3.1, 4.1
2.6	Inflammatory diseases of the salivary glands in children	2	6	6	1,2,3	1.1,1.3,1.4,2.1,2.4,3.1, 4.1
2.7	Disorders of the temporomandibular joint in children	-	6	6	1,2,3	1.1,1.3,1.4,2.1,2.4,3.1, 4.1
<b>9 semester</b>						
1.18	Oral manifestations of bacterial and fungal diseases in children	1	12	12	1,2,3	1.1,1.3,1.4,2.1,2.4,3.1, 4.1
1.19	Traumatic injuries of the oral mucosa in children	-	6	12	1,2,3	1.1,1.2,1.3,1.4,2.1,2.4, 3.1,4.1
1.20	Oral manifestations of drug, bacterial and other types of allergies in children	1	12	10	1,2,3	1.1,1.3,2.1,2.4,3.1, 4.1

2.8	Congenital malformations of the maxillofacial region in children	2	12	12	1,2,3	1.1,1.3,1.4,2.1,2.4,3.1,4.1
2.9	Traumatic injuries of soft tissues of the face, teeth and facial bones in children	-	6	12	1,2,3	1.1,1.3,1.4,2.1,2.4,3.1,4.1
2.10	Congenital anomalies of the lips and tongue frenulum in children. Anomalies of tooth eruption and number of teeth.	2	6	12	1,2,3	1.1,1.3,1.4,1.5,2.1,2.4,3.1,4.1
	Benign tumors and tumor-like formations of the salivary glands in children	1			1,2	1.1,1.3,1.4,2.1,2.4,3.1,4.1
	Benign and malignant tumors of the facial bones and salivary glands in children	1			1,2	1.1,1.3,1.4,2.1,2.4,3.1,4.1
<b>10 semester</b>						
1.21	Diseases of the lips and tongue in children	-	7	8	1,2,3	1.1,1.3,1.4,2.1,2.4,3.1,4.1
1.22	Oral manifestations of somatic diseases in children	-	14	7	1,2,3	1.1,1.3,1.4,2.1,2.4,3.1,4.1
1.23	Tactics of the dentist in treatment of children of different ages	-	28	7	1,2,3	1.1,1.3,1.4,2.1,2.4,3.1,4.1
2.11	Benign tumors and tumor-like formation of the soft tissues in the maxillofacial region in children	-	14	9	1,2,3	1.1,1.3,1.4,2.1,2.4,3.1,4.1
2.12	Odontogenic tumors of the facial bones in children. Odontogenic jaw cysts in children Benign tumors and tumor-like formation of the salivary glands in children	-	7	8	1,2,3	1.1,1.3,1.4,2.1,2.4,3.1,4.1
2.13	Malignant tumors of the maxillofacial area and neck in children	-	7	8	1,2,3	1.1,1.3,1.4,2.1,2.3,2.4,3.1,4.1



## INFORMATION AND INSTRUCTIONAL UNIT

### LITERATURE

#### Basic (relevant):

1. Антоненко, А.Н. Детская поликлиническая хирургическая стоматология = Outpatient Pediatric Oral Surgery : учеб.-метод. пособие / А.Н.Антоненко, Ж.М.Бурак. – Минск : БГМУ, 2018. – 47 с.

#### Additional:

2. Шаковец, Н.В., Бурак, Ж.М., Кленовская, М.И. Кариес временных и незрелых постоянных зубов = Caries of primary and immature permanent Teeth: учебно-метод. пособие. – 2-е изд., испр. – Минск : БГМУ, 2019. – 27с.
3. Шаковец, Н.В. Некариозные поражения зубов = Noncarious tooth lesions : учеб.-метод. пособие / Н.В.Шаковец, Ж.М.Бурак – 2-е изд., испр. – Минск : БГМУ, 2018. – 27 с.
4. Шаковец, Н.В. Пульпиты временных и несформированных постоянных зубов = Pulpitis of primary and immature permanent teeth: учеб.-метод. пособие / Н.В.Шаковец, О.С.Романова. – Минск : УО БГМУ, 2019. – 32 с.
5. Кленовская, М.И. Управление поведением и контроль боли у детей = Behavior management and pain control in children: учеб.-метод. пособие / М.И.Кленовская, Ж.М.Бурак, О.М.Леонович. – Минск : УО БГМУ, 2019. – 36 с.
6. Шаковец, Н.В. Заболевания периодонта у детей = Perodontal pathology in children : учеб.-метод. пособие / Н.В.Шаковец, Ж.М.Бурак, М.И.Кленовская – Минск : УО БГМУ, 2019. – 43 с.

### EQUIPMENT

1. Multimedia projector.
2. Personal computer.
3. Dental unit.

### LIST OF AVAILABLE DIAGNOSTIC TOOLS

The following forms are used for competences assessment:

1. Oral form:
  - 1.1 interviews;
  - 1.2 seminar reports;
  - 1.3 conference reports;
  - 1.4 oral credits;
  - 1.5 oral examinations;
2. Written form:
  - 2.1 tests;
  - 2.2 control questioning;
  - 2.3 control works;
  - 2.4 evaluation on the base of module-rating system.



3. Oral-written form:
  - 3.1 reports of homework.
4. Technical form:
  - 4.1 electronic tests.
5. Simulation form:
  - 5.1 assessment of communicative competency skills using a standardized (simulated) patient.

### **LIST OF PRACTICAL SKILLS**

1. Organize the workplace of a pediatric dentist taking into account the requirements of ergonomics, aseptic and antiseptic rules.
2. Keep accounting and reporting documents adopted in medical dental institutions, conduct an analysis of quantitative and qualitative indicators of the dentist.
3. Achieve optimal contact with children and parents, taking into account the age of the child.
4. Provide a positive response to the visit to the dentist.
5. Conduct treatment with minimal negative impact on the child.
6. Prevent, recognize, eliminate ethical and deontological problems when communicating with the patient and medical staff.
7. Achieve mutual understanding with the patient, persons accompanying him, observing medical ethical principles in communication and actions.
8. Plan and carry out dental interventions according to the psychological state of the patient.
9. Fill in documents of primary disability.
10. Observe safety precautions when working with dental and medical equipment.
11. Carry out an examination of the soft tissues of the maxillofacial region and neck (including the frenum of the lower and upper lips, tongue).
12. Carry out an examination of the condition of the bones of the facial skeleton.
13. Carry out examination of tissues and organs of the oral cavity.
14. Carry out an examination of the dentition. Determine the type of bite.
15. Conduct additional research methods (thermodiagnostics, electroodontodiagnostics, hygiene indices, functional clinical tests).
16. Interpret data from clinical, laboratory, radiological research methods.
17. To formulate a preliminary diagnosis of a disease of the maxillofacial region based on the study.
18. Carry out a differential diagnosis and choose a method for treating dental caries and its complications in children.
19. Carry out a differential diagnosis and choose a method for the treatment of diseases of marginal periodontal disease in children.
20. Carry out a differential diagnosis and choose a method for the treatment of diseases of the oral mucosa in children.
21. Carry out local anesthesia: infiltration, nerve block (mandibular, torus, palatine, incisor, tubular).
22. Define indications for general anesthesia.

23. Carry out remineralizing therapy.
24. Dissect carious cavities in primary and permanent with unformed roots, taking into account the anatomical and physiological characteristics of the hard tissues of the teeth and properties of filling materials.
25. Restore defects in dental hard tissues with composite materials, glass-ionomer cements.
26. Grind, polish fillings.
27. Treat pulpitis using methods of vital and nonvital pulpotomy and pulpectomy, fill the canals with pastes, gutta-percha points.
28. Treat pulpitis in teeth with incomplete root formation by methods saving pulp vitality.
29. Treat periodontitis and fill root canals using modern endodontic approaches.
30. Remove supra- and subgingival dental deposits.
31. Perform curettage of pathological gingival pockets.
32. Perform a gingivotomy.
33. Perform selective grinding of teeth.
34. Carry out primary and permanent splinting of the dentition.
35. Carry out irrigation and application of medications.
36. Carry out primary, secondary prevention of diseases of the teeth, periodontal tissues, oral mucosa.
37. Determine the indications for application, infiltration and nerve block anesthesia in the maxillofacial region in children.
38. Choose correctly a local anesthetic and its dosage.
39. Perform correctly an application, infiltration and nerve block anesthesia.
40. Prevent possible complications during local anesthesia.
41. Provide medical care to the child in case of local or general complications
42. Choose correctly the type of general anesthesia depending on the surgical intervention in the maxillofacial region.
43. Prepare the child for planned general anesthesia.
44. Carry out some resuscitation measures for the child (artificial ventilation of the lungs and indirect heart massage)
45. Choose correctly the forceps and other tools for teeth extraction.
46. Extract primary and permanent teeth in children.
47. Prevent complications during tooth extraction and provide assistance if necessary.
48. Determine the indications for prosthetics in children after tooth extraction.
49. Write a sick list.
50. Describe radiographs of teeth and jaws.
51. Examine a child with acute and chronic periostitis, acute and chronic osteomyelitis of jaws, odontogenic sinusitis and furuncle, lymphadenitis, abscess and phlegmon of the maxillofacial region, inflammatory diseases of the salivary glands and TMJ, traumas, congenital malformations and oncological diseases of the maxillofacial area and make a diagnosis of these diseases.
52. Open of subperiosteal abscess and drain the wound.
53. Take pus from a wound for a sensitivity test.

54. Make an individual treatment plan of child with acute and chronic periostitis, acute and chronic osteomyelitis of jaws, odontogenic sinusitis and furuncle, lymphadenitis, abscess and phlegmon of the maxillofacial region, inflammatory diseases of the salivary glands and TMJ, traumas, congenital malformations and oncological diseases of maxillofacial area and make a diagnosis of these diseases.
55. Keep medical records (outpatient medical card, etc.).
56. Probe of fistulas and extract of small, freely lying sequestrers.
57. Make a scheme of follow-ups of a child with chronic osteomyelitis of the jaw.
58. Read radiographs of the paranasal sinuses.
59. Make the block of furuncle of the face.
60. Provide medical assistance to the patient at the accidental perforation of the bottom of the maxillary sinus during the tooth extraction.
61. Carry out puncture of lymph node or inflammatory infiltrate.
62. Make a dressing of a child after surgery.
63. Examine the child with odontogenic cyst and make the diagnosis.
64. Describe radiographs of odontogenic cysts.
65. Carry out a diagnostic puncture of the cyst.
66. Make an individual treatment plan for a child with an odontogenic cyst.
67. Describe panoramic and contrast sialograms.
68. Probe the ducts of large salivary glands.
69. Make the subcutaneous block of the parotid and submandibular salivary glands.
70. Examine the child with diseases of the temporomandibular joint and make the diagnosis.
71. Describe radiographs at diseases of the temporomandibular joint.
72. Carry out ligature binding of the jaws.
73. Reduce uncomplicated dislocation of the temporomandibular joint.
74. Provide emergency care to a child at the trauma of the maxillofacial area in a polyclinic.
75. Perform the primary surgical treatment of a small wound of the face.
76. Make a reposition and fixation of the teeth at its trauma (splint-brace, etc.).
77. Fit laboratory-made splints at dental trauma.
78. Provide emergency care to a child with bleeding, the threat of asphyxia and traumatic shock.
79. Perform ligature binding of teeth or jaws.
80. Make and immobilize the splint-brace or dental ligature binding.
81. Irrigate the oral cavity of a patient with a fracture of the jaw.
82. Carry out a complex treatment plan for a child with congenital cleft lip and palate.
83. Perform the conversation with the child's parents about the particularities of feeding and caring for these children.
84. Make a dressing to the child after a cheiloplasty operation.
85. Extract (coagulate) a small tumour.
86. Perform a puncture biopsy of a tumor of the jaw or salivary gland.
87. Examine the child with a malignant tumour of the maxillofacial region and put to the oncological center.



88. Make an approximate plan of treatment and medical examination of a child with a malignant tumor of the maxillofacial region.

### LIST OF LECTURES

1. Psychological, psychotherapeutic and pharmacological provision of the contact between the doctor and child.
2. Means and methods to minimize pain during dental treatment of children.
3. Caries of primary teeth: features, diagnosis, treatment and prevention.
4. Caries of permanent teeth: features, diagnosis, treatment and prevention.
5. Pulpitis of primary teeth: features, diagnosis, treatment, prognosis and outcomes.
6. Pulpitis of immature permanent teeth: features, diagnosis, treatment, prognosis and outcomes.
7. Apical periodontitis of primary teeth. Features of diagnosis, clinical course and treatment. Prognosis and outcomes.
8. Apical periodontitis of immature permanent teeth. Features of diagnosis, clinical course and treatment. Prognosis and outcomes.
9. Traumatic injuries of teeth in children. Features of diagnosis, clinical course and treatment. Predictive outcome, clinical examination
10. Non-carious lesions of teeth that occur during the period of follicular development in children. Features of diagnosis, clinical course and treatment. Predictive outcome, clinical examination.
11. Pain relief during surgical procedures in children.
12. Inflammatory diseases of the maxillofacial region in children: odontogenic periostitis, osteomyelitis of the jaws, lymphadenitis, abscess, phlegmon, odontogenic sinusitis. Etiology, pathogenesis, clinical manifestations, diagnosis, treatment, prevention.
13. Gingivitis in children. Features of the etiology, pathogenesis, clinical course and treatment.
14. Symptomatic periodontitis with systemic diseases (periodontal syndrome) in children.
15. Acute and chronic recurrent herpetic stomatitis. Etiology, pathogenesis, clinical manifestations, diagnosis, treatment, prevention
16. Oral mucosa lesions in children with viral diseases. The role of dentist in diagnosis, treatment and prevention.
17. Inflammatory diseases of the salivary glands in children. Disorders of the temporomandibular joint in children. Etiology, pathogenesis, clinical manifestations, diagnosis, treatment, prevention.
18. Traumatic injury of soft tissues of the face, teeth and facial bones in children. Etiology, pathogenesis, clinical manifestations, diagnosis. Urgent care, treatment.
19. Oral manifestations of bacterial and fungal diseases in children. Clinical course, diagnostics, treatment, prevention.
20. Drug, bacterial and other allergic manifestations in the oral cavity in children. Clinical course, diagnostics. The role of dentist in treatment and prevention.
21. Congenital malformations of the maxillofacial region in children.

22. Cleft lip and cleft palate. Etiology, pathogenesis, clinical manifestations, diagnosis, treatment.
23. Benign tumors of the soft tissues in the maxillofacial region in children
24. Benign and malignant tumors of the facial bones and salivary glands in children.

### **LIST OF PRACTICAL STUDIES**

1. Entrance test. Fundamentals of ethics in Pediatric Therapeutic Dentistry. The objectives of pediatric dental treatment. Features of children behavior in different ages.
2. Psychological, psychotherapeutic and pharmacological provision of the contact between the doctor and child and children with special needs.
3. Means and methods to minimize pain during dental treatment of children.
4. Anatomical and physiological features of the hard dental tissues structure in children at different ages. The diagnostic features of dental caries in children.
5. Clinical features of caries of primary teeth.
6. Methods of treatment of caries of primary teeth in children.
7. Clinical features of caries of immature permanent teeth
8. Methods of treatment of caries of immature permanent teeth in children.
9. Anatomical, physiological and radiological features of the pulp and the periodontium structure of primary and immature permanent teeth in children at different ages.
10. Pulpitis of primary teeth. Patterns of the pulpitis clinical manifestations in different age periods. Diagnosis.
11. Treatment of pulpitis of primary teeth, prognosis and outcomes.
12. Pulpitis of immature permanent teeth. Patterns of the pulpitis clinical manifestations in different age periods. Diagnosis.
13. Treatment of pulpitis of immature permanent teeth, prognosis and outcomes.
14. Apical periodontitis of primary and teeth. Patterns of clinical manifestations in different age periods. Clinical and radiological diagnosis. Differential diagnosis.
15. Treatment of apical periodontitis of primary teeth. Choice of the method of treatment. Prognosis and outcomes.
16. Apical periodontitis of immature permanent teeth. Patterns of clinical manifestations in different age periods. Clinical and radiological diagnosis. Differential diagnosis.
17. Treatment of apical periodontitis of immature permanent teeth. Choice of the method of treatment. Prognosis and outcomes.
18. Mistakes and complications of treatment of caries complications in children.
19. Traumatic injuries of primary teeth in children. Features of diagnosis, clinical course and treatment. Predictive outcomes, regular check-ups.
20. Traumatic injuries of immature permanent teeth in children. Features of diagnosis, clinical course and treatment. Predictive outcomes.
21. Non-carious lesions of teeth that occur during the period of follicular development in children. Hypoplasia, nonendemic mottling. Molar incisor hypomineralisation. Features of diagnosis, clinical course, treatment and prevention. Predictive outcomes.

22. Hereditary non-carious lesions of teeth in children. Features of diagnosis, clinical course, treatment and prevention. Final tests.
23. Pain relief during surgical procedures in children (local and general). Indications and contraindications. Complications of local anesthesia, prevention of complications.
24. Tooth extraction in children: indications, contraindications, complications, prevention of complications.
25. Features of inflammatory diseases of the maxillofacial region in children. Channels of odontogenic infection. Odontogenic periostitis and acute osteomyelitis of jaws in children. Etiology, clinical manifestations, diagnostic, treatment, prevention.
26. Chronic osteomyelitis of the jaws in children. Etiology, clinical manifestations, diagnostic, treatment, prevention.
27. Entrance tests. Anatomical, physiological and radiological features of the periodontium structure in children at different ages.
28. Gingivitis in children Features of the etiology, pathogenesis, clinical course and treatment. Gingival recession.
29. Rapidly progressing periodontitis. Clinical course. Diagnostics. Treatment.
30. Symptomatic periodontitis with systemic diseases (periodontal syndrome) in children. Clinical and radiological features. Treatment.
31. Acute herpetic stomatitis. Etiology, pathogenesis, clinical manifestations, diagnosis, treatment, prevention
32. Chronic recurrent herpetic stomatitis. Etiology, pathogenesis, clinical manifestations, diagnosis, treatment, prevention.
33. Oral manifestations of viral diseases in children. Role of dentist in diagnostic, treatment, prevention. Final tests.
34. Odontogenic sinusitis in children. Furuncles of the face in children. Etiology, clinical manifestations, diagnostic, treatment, prevention.
35. Lymphadenitis, abscess, phlegmon of the maxillofacial region in children. Etiology, clinical manifestations, diagnosis, treatment.
36. Inflammatory diseases of the salivary glands in children. Etiology, clinical manifestations, diagnosis, treatment.
37. Disorders of the temporomandibular joint in children. Etiology, clinical manifestations, diagnosis, treatment.
38. Oral manifestation of bacterial diseases in children. Role of dentist in diagnostic, treatment, prevention.
39. Oral manifestation of fungal diseases in children. Clinical course, diagnosis, treatment, prevention.
40. Traumatic injuries of the oral mucosa in children. Symptoms, diagnostic, treatment, prevention.
41. Drug, bacterial and other allergic manifestations in the oral cavity in children (anaphylactic shock, Quincke's edema, urticarial, Hebra's disease, Stevens-Johnson syndrome, Lyell's disease, Behcet's syndrome). Clinical manifestations, diagnosis. Role of the dentist in complex treatment.



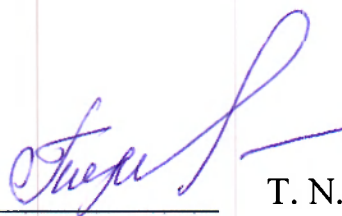
42. Drug, bacterial and other allergic manifestations in the oral cavity in children (drug stomatitis, aphthous stomatitis, contact allergy). Clinical manifestations, diagnosis. Role of the dentist in complex treatment. Final tests.
43. Congenital malformations of the maxillofacial region in children (cysts, fistuls, malocclusion). Etiology, clinical manifestations, diagnosis, treatment.
44. Cleft lip and cleft palate. Etiology, clinical manifestations, diagnosis, treatment.
45. Traumatic injuries to the soft tissues and teeth in children. Clinical manifestations, diagnosis, emergency care, treatment.
46. Congenital anomalies of the lips and tongue frenulum in children. Shallow oral vestibule. Anomalies of tooth eruption and number of teeth. Clinical manifestations, diagnosis, treatment.
47. Diseases of the lips and the tongue in children. Clinical manifestations, diagnosis. Role of the dentist in complex treatment.
48. Oral manifestation of somatic diseases of children (hemopathy, cardio-vascular, endocrine pathology). Role of the dentist in complex treatment.
49. Oral manifestation of somatic diseases of children (chronic diseases of the excretory system and gastrointestinal tract). Role of the dentist in complex treatment.
50. Diagnostic of risk factors of principal dental diseases. Preventive and therapeutic measures in children aged 0 to 3 years. Early childhood caries: prevention, treatment methods, the choice of filling materials.
51. Features of dental treatment of children from 3 to 6 years: an emerging disease diagnosis, choice of means and methods of oral care, prevention and treatment of diseases of the dental hard tissues, periodontal tissues and oral mucosa.
52. Features of dental treatment of children from 6 to 12 years depending on the presence of risk factors for oral diseases and health level.
53. Features of dental treatment of children from 12 to 18 years depending on the presence of risk factors for oral diseases and health level. Final tests. Graded credit on practical skills.
54. Benign tumors and tumor-like formation of the soft tissues in the maxillofacial region in children. Clinical manifestations, diagnosis, treatment.
55. Benign osteogenic and non-osteogenic tumors and tumor-like formation of the facial bones in children. Clinical manifestations, diagnosis, treatment.
56. Odontogenic tumors of facial bones. Malignant tumors of the maxillofacial area and neck in children. Benign tumors of salivary glands. Odontogenic jaw cysts in children. Clinical manifestations, diagnosis, treatment.
57. Final tests. Case history defense.

**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 # )
1. Preventive dentistry	Department of Pediatric Dentistry	No amendments	protocol # 6 of 20.11.2019

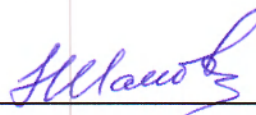
**COMPILERS/AUTHORS:**

Head of Pediatric Dentistry  
Department of Educational Institution  
“Belarusian State Medical University”,  
MD, Professor



T. N. Terehova

Professor of Pediatric Dentistry  
Department of Educational Institution  
“Belarusian State Medical University”,  
MD



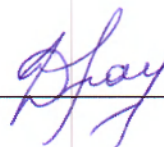
N. V. Shakovets

Associate Professor of Pediatric  
Dentistry Department of Educational  
Institution “Belarusian State Medical  
University”, PhD



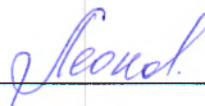
L. P. Belik

Associate Professor of Pediatric  
Dentistry Department of Educational  
Institution “Belarusian State Medical  
University”, PhD



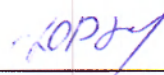
D. N. Naumovich

Associate Professor of Pediatric  
Dentistry Department of Educational  
Institution “Belarusian State Medical  
University”, PhD



O. M. Leonovich

Assistant of Pediatric Dentistry  
Department of Educational Institution  
“Belarusian State Medical University”



Y. V. Zenkevich

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

Dean of the Medical Faculty of  
International Students of the Educational  
Institution «Belarusian State Medical  
University»

19. 12. 2019



O. S. Ishutin

Methodologist of Educational Institution  
«Belarusian State Medical University»

19. 12. 2019



S. V. Zaturanova

Head of the Foreign Languages  
Department

19. 12. 2019



M. N. Petrova



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

Name	<b>Terehova Tamara Nikolaevna</b>
Position, scientific degree, title	Head of Pediatric Dentistry Department of Educational Institution “Belarusian State Medical University”, MD, Professor
☎ office	(017) 200-59-71
e-mail	tsetam@tut.by
Name	<b>Shakovets Natalia Vayacheslavovna</b>
Position, scientific degree, title	Professor of Pediatric Dentistry Department of Educational Institution “Belarusian State Medical University”, MD
☎ office	(017) 200-56-17
e-mail	n.shakavets@gmail.com
Name	<b>Belik Ludmila Petrovna</b>
Position, scientific degree, title	Associate Professor of Pediatric Dentistry Department of Educational Institution “Belarusian State Medical University”, PhD
☎ office	(017) 200-56-88
e-mail	ludmilabelik@tut.by
Name	<b>Naumovich Darya Nikolaevna</b>
Position, scientific degree, title	Associate Professor of Pediatric Dentistry Department of Educational Institution “Belarusian State Medical University”, PhD
☎ office	(017) 200-56-17
e-mail	dr.darya.naumovich@gmail.com
Name	<b>Leonovich Olga Mikhailovna</b>
Position, scientific degree, title	Associate Professor of Pediatric Dentistry Department of Educational Institution “Belarusian State Medical University”, PhD
☎ office	(017) 200-56-17
Name	<b>Zenkevich Yuri Vsevolodovich</b>
Position, scientific degree, title	Assistant of Pediatric Dentistry Department of Educational Institution “Belarusian State Medical University”
☎ office	(017) 200-56-88