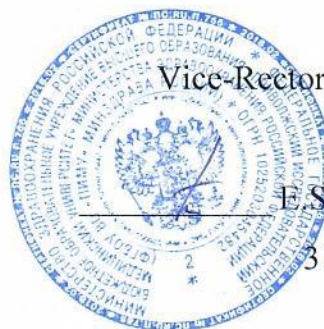


Federal State Budgetary Educational Institution of Higher Education  
"Privolzhsky Research Medical University"  
Ministry of Health of the Russian Federation



APPROVED  
Vice-Rector for Academic  
Affairs  
E.S. Bogomolova  
31 August 2021

## WORKING PROGRAM

**Discipline: Features of the course and treatment of caries and its complications in children. (Elective)**

**Specialty: 31.05.03. Dentistry**

**Qualification: Dentist**

**Department: Pediatric Dentistry**

**Mode of study: Full-time**

**Labor intensity of the discipline: 72 academic hours**

Nizhny Novgorod  
2021

The working program has been developed in accordance with the Federal State Educational Standard for the specialty 31.05.03. "Dentistry", approved by Order of the Ministry of Science and Higher Education of the Russian Federation No. 988 of August 12, 2020

**Developers of the working program:**

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3. Krivulina Galina Vladimirovna, Assistant of the Department of Pediatric Dentistry

The program was reviewed and approved at a meeting of the Department of Pediatric Dentistry, protocol No. \_\_\_\_\_ dated \_\_\_\_\_

Head of the Department of Pediatric Dentistry, MD, Associate Professor Kosyuga Svetlana Yurievna \_\_\_\_\_ (print name)

*Kosyuga*

(signature)

2021

AGREED

Deputy Head of the EMA \_\_\_\_\_ L.V. Lovtsova

*L.V. Lovtsova*

(signature)

\_\_\_\_\_ 2021

**1. The purpose and objectives of mastering the discipline.** The discipline of pediatric dentistry is particularly complex and multicomponent, where a specialist acts as a dentist and thinks like a pediatrician, so the training of such a doctor requires the application of maximum effort, time and energy. Children's age has many features both in the manifestation and course of pathological processes of the maxillofacial region, and in treatment methods. A dentist requires knowledge of the age-related anatomy and physiology of a child; the ability to understand the manifestation of pathology at different ages; the ability to choose methods for the prevention of dental diseases in children and to determine the timing of conservative or surgical treatment.

**1.1. The purpose of the discipline** is to prepare a dentist for independent professional activity in outpatient practice and to perform therapeutic, diagnostic, preventive, advisory, organizational assistance to children with major dental diseases and injuries of the maxillofacial region, taking into account the individual and anatomical and physiological characteristics of the child's body using modern achievements of medical science and practice.

As a result of mastering the program of the discipline "Features of the course and treatment of caries and its complications in children", the following competencies are formed in the student:

**Universal:**

UC-1. The ability to carry out a critical analysis of problem situations based on a systematic approach, to develop a strategy of action.

**Professional:**

PC-1. Ability to perform diagnostics of dental diseases and pathological conditions of patients.

PC-2. Ability to carry out activities for the prevention of dental diseases.

PC-5. Application of basic principles of organization of dental care in medical organizations and their structural subdivisions.

PC-6. Carrying out diagnostics of dental diseases and pathological conditions of patients.

PC-8. Carrying out medical examination.

PC-9. Carrying out treatment of patients with dental diseases.

PC-12. Participation in solving research and scientific-applied tasks in the field of health care and medical sciences.

Theoretical knowledge and manual skills, acquired on preclinical course allow to master more deeply and fully the diagnostics and treatment of main dental diseases of oral cavity of children, taking into account anatomic-physiological features of children organism and their influence on clinical course of main dental diseases of children and teenagers.

For the best assimilation of theoretical material and practical skills the educational process is maximally approached to the real situation of work on children's dentist's office both on therapeutic and surgical sections of pediatric dentistry.

Practical lessons are spent at direct work with children who have basic stomatological diseases, and also with their parents that has the big value at formation of competences in preventive, diagnostic, therapeutic and psychological-pedagogical activity of the future pediatric dentist and allows students to acquire appropriate manual skills.

**1.2 Objectives of the study of the discipline:**

- To acquaint the student with the anatomical and physiological features of the pediatric organism, their influence on the clinical course of the main dental diseases in children and adolescents;
- To acquaint with features of a clinical course, diagnostics and treatment of these diseases, their outcomes depending on age of the child, possibilities of rehabilitation after the suffered diseases (medical and social) and ways of its realization;
- To acquaint the student with the methods of diagnostics of symptomatic manifestations of somatic and infectious diseases in the oral cavity of children and teenagers;
- To acquaint the student with methods of prevention of basic dental diseases, congenital and hereditary diseases;
- To acquaint the student with methods of diagnostics at examination of children and teenagers with inflammatory stomatological diseases, damages, defects and deformations of tissues of maxillofacial area;
- To teach the student how to perform individual medical manipulations;
- To teach students the skills of communication with children and teenagers of different age and their relatives interaction with the team and colleagues;
- To familiarize students with the organization of work with medications and the observance of the rules of their storage in pediatric dental clinic
- Familiarization of students with office work in pediatric dental clinic.

*As a result of studying the discipline*

**THE STUDENT SHOULD KNOW:**

- stages of development of pediatric dentistry, the role of leading scientists in the development of the discipline, the basics of the organization of dental care for children in the Russian Federation.
- principles of the equipment of a stomatological office for children's stomatological reception;
- Peculiarities of anatomic structure of teeth, soft tissues of the face, jaw and facial bones at children's age;
- Physiological features of individual organs and systems of the child's body;
- methods of examination that allow to diagnose diseases of the teeth, oral mucosa and periodontal disease in children of different age and sex groups taking into account their anatomical and physiological characteristics;
- features of the clinical manifestation of the main dental diseases of the teeth, oral mucous membrane and periodontal tissues in children and adolescents;
- substantiation of the tactics of patient management, methods of treatment and prevention, determination of the prognosis of dental, oral mucous membrane and periodontal diseases in children of different age and gender groups with regard to their anatomo-physiological features;
- Basic methods of therapeutic treatment for diseases of the teeth, the oral mucosa and periodontal tissues in children of different age and sex groups, taking into account their anatomico-physiological characteristics;
- Possible errors and complications that occur during the treatment of caries, its complications, dental diseases of non-cariou origin, their elimination and treatment in children;
- Features of the clinical manifestation of the main surgical dental diseases and injuries of the maxillofacial area in children and adolescents;

- Existing methods of diagnostics and treatment, basic stomatological diseases and damages of maxillofacial area at children and teenagers, methods of their prophylaxis and ways of child rehabilitation in different age periods;

- Principles of dispensary examination of children with diseases and damages of maxillofacial area in the conditions of children's dental polyclinic.

- Fundamentals of planning, implementation, evaluation of efficiency of program of preventive measures of dental diseases among child population.

- The influence of hereditary and environmental factors on

The influence of hereditary and environmental factors on the appearance of basic dental diseases in children;

- Principles of health examination, organizational forms of carrying out

The principles of medical examination and organizational forms of carrying out of planned sanitation of children's oral cavity;

- Principles of diagnosis, treatment and prevention of dentoalveolar anomalies

The principles of diagnostics, treatment and prophylaxis of dentoalveolar anomalies in children;

#### **THE STUDENT SHOULD BE ABLE TO:**

- conduct an examination of children of different age groups;

- Establish psychological and verbal contact with a healthy and sick child;

- Establish emotional and psychological contact with the child and his/her parents;

- Evaluate the child's neuro-psychological development and physical and intellectual development;

- Draw up a medical card of a primary patient;

- conduct examinations of the skin, visible mucous membranes, oral mucosa, pharynx;

- conduct a record of the dental formula of permanent and temporary teeth in accordance with the international system of notation;

- determine the hygienic condition of the oral cavity using Fedorov-Volodkina, Green-Vermillion, RNR and other indices;

- determine the intensity of caries with the help of indices KPU, KP teeth and surfaces;

- determine the condition of periodontal tissues using CPI, PMA indices, etc;

- conduct diagnosis and differential diagnosis in diseases of the teeth, oral mucosa and periodontal tissues in children;

- to dissect carious cavities of I-V classes in the teeth of temporary, mixed and permanent bites (on phantoms, models, in patients);

- fill carious cavities of all classes on phantoms and models with filling materials of different groups of temporary, mixed and permanent bites;

- perform the necessary endodontic measures in the teeth of temporary, mixed and permanent bites (on phantoms, models, in patients, on extracted teeth with formed and unformed roots);

- conduct techniques of vital staining of foci of enamel demineralization;

- coating teeth with fluoride-containing gel and varnish;

- to perform sealing of dental fissures;
- to fill all types of cavities with modern fillings and restorative materials;
- restore the anatomical shape of the tooth with different filling materials;
- to carry out the application of therapeutic, insulating pads;
- conduct a biological method of treatment of the pulp in permanent teeth;
- conduct pulpotomy with medication in temporary teeth;
- conduct a vital amputation of the pulp in permanent teeth;
- perform pulp devitalization with necrotizing and mummifying pastes in temporary teeth;
- perform pulp extirpation;
- determine the "working" length of the root canal (clinically, electronically and radiographically) in temporary and permanent teeth;
- remove root and crown pulp decay in periodontitis in formed and unformed teeth;
- perform apexification in permanent teeth with discontinued root formation;
- perform instrumental and antiseptic treatment of the root canal;
- Fill root canals with pastes, gutta-percha, rigid pins;
- remove supra- and sub-gingival mineralized dental deposits;
- Prescribe and use medications in an age-appropriate dosage;
- Prescribe vitamin therapy, immunomodulatory therapy, and medications that stimulate nonspecific defense of the child's body;
- read overview radiographs of the jaw bones, orthopantomograms, panoramic and intraoral radiographs, contrast radiographs;
- Identify children with pronounced dentoalveolar anomalies and deformities and refer them to an orthodontist for specialized care and registration in the dispensary;
- To carry out the application of anesthesia;
- perform resuscitation measures;
- Evaluate the results of various methods of examination of patients with dental, oral mucosa and periodontal disease in children;
- conduct hygiene classes with children and their parents in outpatient clinics, in children's institutions and schools.
- Draw up the medical record of the primary surgical patient;
- assess the child's neuro-psychological development, physical and intellectual development, and his or her general condition;
- explain the specificity of the clinical course of various inflammatory diseases and injuries of the maxillofacial region (MF), based on the anatomico-physiological features of the child's body;
- comply with sanitary norms, correctly use personal protective equipment;
- assess the condition of the child based on the examination and the results of additional methods of examination, taking into account the diagnosis;
- choose a method of anesthesia depending on the type and volume of surgical intervention;
- provide emergency care in extreme situations;

- decipher intraoral (aimed) radiographs and radiographs of the bones of the facial skeleton (direct and lateral projections, panoramic, orthopantomograms);
- To perform the operation of temporary and permanent tooth extraction in children for various indications;
- make differential diagnosis of various inflammatory diseases among themselves and with other diseases;
- determine the place of treatment of the child (outpatient clinic, hospital) and the volume of surgical care;
- make differential diagnosis of inflammatory diseases of salivary glands among themselves and with similar clinical course of diseases of the TMJ;
- Make a scheme of examination, treatment and dispensary examination of children with chronic nonspecific parenchymatous parotitis and salivary gland disease;
- Examine patients with temporomandibular joint (TMJ) pathology according to a certain algorithm;
- choose the most informative methods of additional examination of children with primary bone and functional TMJ disorders;
- to make a preliminary diagnosis and plan the examination and treatment of children with primary bone and functional TMJ disorders;
- assess the child's condition on the basis of examination data and the results of additional methods of examination, taking into account the diagnosis made;
- provide emergency pre-hospital care for various types of trauma to the TMJ, determine the combined trauma, indications for hospitalization;
- make differential diagnosis of various tumors and tumor-like neoplasms of soft tissues and bones of the children's humerus;
- choose the most informative method of additional examination for different nosological forms;
- make a preliminary clinical diagnosis and refer the child to a specialized medical institution;
- determine indications for cystotomy and cystectomy operations for odontogenic inflammatory cysts of the upper and lower jaw, determine the place of treatment of the child (outpatient clinic, hospital);
- to make a preliminary diagnosis after clinical examination of children with congenital pathology of the craniofacial cavity;
- make a scheme of treatment and dispensary examination of a particular patient with congenital pathology with the indication of specialists involved in the medical and social rehabilitation of such patients;
- determine indications for outpatient operations for congenital oral mucosal pathology (logopedic, orthodontic) depending on the age of the child.

**- THE STUDENT MUST KNOW:**

- methods of examination of a child in the conditions of a dental polyclinic (external examination, palpation of regional lymph nodes, examination of temporomandibular joint, oral examination);
- ability to draw up medical documentation;

- techniques of application, infiltration anesthesia on the upper jaw; infiltration and conduction anesthesia on the lower jaw in children and adolescents;
- Methods of preparation, mechanical and medicamentous treatment and filling of carious cavities
- Techniques of mechanical and medicamentous treatment of root canals
- Techniques for root canal filling
- Techniques for treatment of caries, pulpitis, apical periodontitis in children and adolescents
- Methods for the treatment of non-carious dental hard tissue lesions
- Treatment of periodontal disease
- Oral and lip mucous membrane disease treatment methods
- Oral hygiene techniques for professional oral hygiene
- Methods of remodeling
- Fissure sealing procedures
- How to remove temporary and permanent teeth in children according to different indications;
- Emergency treatment in case of emergency conditions (fainting, collapse, shock) in a pediatric surgical outpatient clinic;
- perform bimanual palpation of the TMJ, clinical examination of joint function (mouth opening, mandibular displacement, audible symptoms of disorders, etc.)
- suture the skin and mucous membrane of the oral cavity during PCS (primary surgical treatment);
- make splints and splints made of quick-hardening plastic,
- make a wire composite splint;
- to conduct external examination of the maxilla, torso, extremities, palpation of the maxilla, oral examination (condition of the mucosa, alveolar processes, tongue, soft and hard palate, position of teeth, palpation of soft tissues, maxillary and facial bones for signs of tumor growth (presence of pigment spots on the skin, vascular pattern, symptoms of compression, infusion and others);
- Conduct an external examination of the face and neck to detect congenital malformations of the maxilla;
- Decide on the hospitalization of the child and make a referral to a specialized institution.

**To fulfill this provision, the instructor has the following objectives:**

1. Demonstrate to the student by personal example, demeanor, appearance, examination technique and communication with patients the basic principles that must be observed in communication with a sick child or adolescent and the ability to come into contact with him or her.
2. Demonstrate in practice a model of consistent methodical examination of a patient, showing as much as possible the symptomatology of a particular disease.
3. to actively involve students in the conversation with patients, in the individual stages and moments of the examination of the patient (palpation, percussion, probing, determination of various symptoms) and thus facilitate students' first independent steps and help to overcome the "barrier" in communication with sick children and teenagers.



4. by analyzing the data obtained in the collection of anamnesis, objective data and additional methods of investigation, to teach students an example of clinical thinking at the patient's chair.
5. Involve students in the primary preventive measures to reduce dental diseases among the child population, as well as dental education (holding health lessons in organized children's groups, oral hygiene lessons in game form, writing lectures and talks on topical dental topics for children and parents, issue health bulletins, brochures, pamphlets on basic issues of dental disease prevention).
6. Study of diseases of hard tissues of teeth, pulp, periodontium, periodontal and oral mucosa, inflammatory diseases of maxillofacial region and temporomandibular joint, traumatic damages and tumors of maxillofacial region, congenital pathology of maxillofacial region in children is accompanied by demonstration of patients. The anamnesis, etiology and course of the disease are analyzed, the complex general and local treatment of pathology is discussed, focusing on modern aspects in the practice of treatment of this or that disease and anatomical and physiological features of the child's organism.

Involvement of students in direct work with patients contributes to the fulfillment of the main task to teach students not only theoretical knowledge, but also practical skills.

## **2. The place of the discipline in the structure of the educational program of the organization**

2.1 Pediatric dentistry refers to the section of professional disciplines of the educational standard of higher professional medical education, belongs to the basic part of Block 1 of the HPEO.

The discipline "Children's Dentistry" is studied by students of the Faculty of Dentistry at the 4th and 5th courses. The discipline includes academic modules:

1. therapeutic pediatric dentistry,
2. pediatric surgical dentistry and pediatric maxillofacial surgery.

Professional cycle (basic part).

The chair of pediatric stomatology is the graduating chair.

2.2 To study the discipline the knowledge, abilities and skills formed by the previous disciplines are necessary:

### 2.2.1 Foreign Language.

Knowledge - General medical terms in English and Latin. Dental medical terms in English and Latin.

Skills - Understand dental medical terms in English and Latin.

Skills - use general medical and dental medical terms in English and Latin.

### 2.2.2 Human Anatomy.

Knowledge - the anatomical structure, blood supply and innervation of the maxillofacial region in children of different ages.

Skills - to assess the bite and its types in different age periods, the anatomical structure of temporary and permanent teeth and the maxillofacial area in children.

Skills - determine the norm and pathology of the bite in children of different ages, determine the

timing of the eruption of temporary and permanent teeth.

### 2.2.3. histology and embryology.

Knowledge - histology of organs of the mouth and teeth, embryology of organs of the mouth and teeth.

Skills - identify the histological structure of oral tissues.

Skills - identify histological changes in oral tissues in the normal and pathological processes.

### 2.2.4 Normal physiology.

Knowledge - functions of the teeth and their role in the body.

Skills - to identify changes in the tooth pulp, periodontium in inflammation and age-related changes.

Skills - methods of registering pain syndrome in dental caries and its complications.

### 2.2.5 Microbiology.

Knowledge - Microflora of the oral cavity. Infection. Physiology of microorganisms. Immunity.

Skills - methods of swabbing and scraping oral microflora.

Skills - determine the microflora of the oral cavity in the normal and with pathology.

### 2.2.6 Biochemistry.

Knowledge - Properties and composition of saliva. Amino acids of dental hard tissues.

### 2.2.6 Biochemistry.

Knowledge - Properties and composition of saliva. Amino acids of dental hard tissues and pulp. Protein metabolism in dental hard tissues.

Skills - to identify changes in the composition and properties of saliva, changes in the structure of dental hard tissues.

Skills - determine the pH of saliva, remineralizing ability of saliva, permeability of dental hard tissues.

### 2.2.7 Pathological physiology.

Knowledge - Inflammation. Pathology of thermoregulation. Fever. Tumors. Allergies.

Skills - identify the presence of inflammation, allergic reaction, tumor.

Skills - determine the acuteness and severity of the inflammatory process.

### 2.2.8 Pathological anatomy.

Knowledge - Inflammation. Necrosis. Regeneration. Tumors. Injuries.

Skills - take material for cytological examination (scrapes, imprints) from the examined area;

Skills - to distinguish different pathological processes from each other.

### 2.2.9 Pharmacology.

Knowledge - Antiseptics in pediatric dentistry clinic.

Enzymes. Antibiotics. Antimicrobial and antiparasitic agents. Agents affecting tissue metabolism. Anti-allergic agents. Antidotes and complexons. Tranquilizers and sedatives. Narcotic and non-narcotic analgesics. Local anesthetics.

Skills - Choosing the right medication depending on the pathology

Skills - Writing prescriptions for drugs.

#### 2.2.10 Topographical anatomy and operative surgery.

Knowledge - topographic anatomy of the head and neck.

Skills - determine the pathways of spread of purulent infection,  
ways of spreading of metastases.

Skills - identify the area of inflammation spreading, identify the area of tumor process spreading

#### 2.2.11. Pediatrics

Knowledge - Features of physical and mental development of the child. Features of nutrition of children of the first year of life, preschool and school age children.

Skills - assess the physical and mental development of the child, determine the nature of the child's nutrition

Skills - to identify abnormalities in the physical and mental development of the child, to suggest a scheme of rational nutrition of the child in different age periods for the formation of oral health.

#### 2.2.12. Propaedeutic Dentistry

Knowledge - Prevention of caries and non-carious lesions.

Prevention of periodontal disease.

Prevention of oral mucous membrane diseases.

Skills - to assess the values and criteria of oral hygiene indices, as well as indices and criteria of prevalence and intensity of major dental diseases.

Skills - to determine the indices of assessment of oral hygiene.

Indices and criteria for assessing the prevalence and intensity of major dental diseases.

#### 2.2.13. Therapeutic dentistry

Knowledge - clinic, diagnostics and treatment of the main dental diseases in children and teenagers.

Skills - to estimate a condition of an oral cavity at children and teenagers at the basic stomatological diseases and to choose tactics of treatment.

Skills - to carry out diagnostics and treatment of the main dental diseases at children and teenagers.

#### 2.2.14 Dental surgery and maxillofacial surgery

Knowledge - Features of anesthesia in surgical dentistry.

Inflammatory diseases and traumatic injuries of the maxillofacial region. Reconstructive and plastic surgery in the face and neck.

Skills - determine the methodology of anesthesia in surgical dentistry, determine tactics for inflammatory diseases and traumatic injuries of the maxillofacial area.

Skills - conduct anesthesia in the maxillofacial region, provide dental care for inflammatory diseases and traumatic injuries of the maxillofacial region.

#### 2.2.15 Orthopedic dentistry (orthodontics and pediatric prosthetics).

Knowledge - Organization of orthodontic care for children.

Types of dentoalveolar anomalies. Classifications. Etiology.

Skills - to assess the state of bite in children of different ages.

Skills - to conduct an examination of children with orthognathic bite and dental anomalies, diagnose and treat dental anomalies.

### 3. Results of mastering the discipline and indicators of achievement of competence.

The study of the discipline is aimed at forming the following universal (UK), general professional (GPC) and professional (PC) competencies:

№ п/ п	Competence code	The content of the competence (or part of it)	Code and name of the competence achievement indicator	As a result of studying the discipline , students should:		
				know	Be able to	Possess skills
1.	UC-1	Ability to abstract thinking, analysis, synthesis	UC-1. He is able to carry out a critical analysis of problem situations based on a systematic approach, to develop a strategy of actions	basic principles and algorithms of information analysis and synthesis in the professional medical activity of a pediatric dentist	analyze the situation and systematize the information data received for each specific clinical case in pediatric dentistry	clinical thinking, synthesis of the obtained data and analysis of the situation depending on the specific clinical case in pediatric dentistry
2.	PC-1	Ability to diagnose dental diseases and pathological conditions of patients	PC-1. Ability and readiness to implement a set of measures aimed at preserving and strengthening health and including the formation of a healthy lifestyle of the patient (their relatives / legal representatives). Prevention of the occurrence and (or) spread of dental diseases, their early diagnosis, identification of the causes and conditions of occurrence and development, as well as prevention..	fundamentals of preventive measures for the formation of dental health of children and adolescents, the influence of hereditary factors and environmental factors on the occurrence of major dental diseases among the child population	conduct lectures, talks, discussions about factors affecting the dental health of children and adults, the causes of major dental diseases among children and adolescents, measures to prevent dental diseases in the family and in society	methods of dental education, methods of auditory, speech, illustrative motivation for the formation of dental health of children and their parents

3.	PC-2	Ability to carry out measures for the prevention of dental diseases	PC-2. The ability and readiness to conduct preventive medical examinations, medical examination of various categories of citizens and the implementation of dispensary supervision of patients with dental pathology	Fundamentals of planning and conducting preventive medical examinations, medical examinations and the implementation of dispensary supervision of children and adolescents with dental pathology.	to carry out preventive medical examination and to carry out dispensary supervision of children and adolescents with dental diseases	methods of preventive dental examination of the maxillofacial region in children and adolescents of different ages and methods of dispensary observation in children and adolescents with different nosological forms of dental diseases
4.	PC-5	Application of the basic principles of the organization of dental care in medical organizations and their structural divisions.	PC-5. Ability and readiness to use social and hygienic methods of collecting and medical-statistical indicators on dental morbidity, indicators of the quality of dental care.	Rules of registration and peculiarities of maintaining medical documentation, including in the form of an electronic document, in medical organizations of dental profile. Rules of work in medical information systems and information and telecommunication network "Internet". Job responsibilities of medical workers in medical organizations of dental profile. Organization of dental offices, equipment and equipping of	Make a work plan and a work report. Fill out medical documentation, including in the form of an electronic document and monitor the quality of its management. To analyze medical and statistical indicators of the incidence of dental diseases. To use information systems in the field of healthcare and the Internet information and telecommunication network in their work. To monitor the performance of official duties of the medical personnel at the disposal. To use personal data of patients and information constituting a medical secret in	Drawing up a work plan and a report on their work. Maintaining medical records, including in the form of an electronic document. Control of the performance of official duties by the medical personnel at the disposal. The use of information systems in the field of healthcare and the information and telecommunication network "Internet". The use of personal data of patients and information constituting a medical secret in the work.

				dental offices, departments and polyclinics. Occupational health, safety and fire safety requirements, procedures for emergency situations.	the work	
5.	PC-6	Conducting diagnostics of dental diseases and pathological conditions of patients.	PC-6. The ability to determine the main pathological conditions, symptoms, syndromes of dental diseases, nosological forms in patients in accordance with the International Statistical Classification of Diseases and Health-related Problems, X viewing.	pathological physiology and pathological anatomy, clinic, diagnostics and differential diagnostics, nosological forms of major dental diseases in children and adolescents in accordance with ICD-10	to determine in patients the main pathological conditions, symptoms, syndromes, nosological forms of dental diseases in children and adolescents	methods for determining pathological conditions, symptoms, syndromes of dental diseases and their nosological forms in children and adolescents
6.	PC-8	Conducting a medical examination	PC-8. Readiness to carry out the examination of temporary disability, participation in the medical and social examination, the statement of biological death of a person	The procedure for issuing disability certificates. Medical indications for referral for medical and social examination. Requirements for registration of medical documentation	Identify signs of temporary care for a sick child suffering from a dental disease. To draw up medical documentation for the referral of children with dental diseases to federal state institutions of medical and social expertise	Examination of temporary disability to care for a sick child suffering from a dental disease. Registration of the necessary medical documentation for medical and social expertise in federal state institutions of medical and social expertise. Referrals of children and adolescents with dental diseases for medical and social expertise. Issuance of a disability certificate, including to persons caring for a sick family

						member.
7.	PC-9	Treatment of patients with dental diseases	PC-9 Readiness to determine the need for the use of natural therapeutic factors, medicinal, non-drug therapy and other methods in patients with diseases of the maxillofacial region in need of medical rehabilitation and spa treatment	Indications and contraindications to the use of natural therapeutic factors, medicinal, non-drug therapy and other methods in children and adolescents with diseases of the maxillofacial region in need of medical rehabilitation and sanatorium treatment; efficacy and safety of non-drug therapy; features of interaction of non-drug therapy methods in patients with diseases of the maxillofacial region in need of medical rehabilitation and sanatorium-resort treatment; the algorithm for performing physiotherapy procedures.	Indications and contraindications to the use of natural therapeutic factors, medicinal, non-drug therapy and other methods in children and adolescents with diseases of the maxillofacial region in need of medical rehabilitation and sanatorium treatment; efficacy and safety of non-drug therapy; features of interaction of non-drug therapy methods in patients with diseases of the maxillofacial region in need of medical rehabilitation and sanatorium-resort treatment; the algorithm for performing physiotherapy procedures.	Has practical experience: determining indications and contraindications to the use of natural therapeutic factors, medicinal, non-drug therapy and other methods in children and adolescents with diseases of the maxillofacial region in need of medical rehabilitation and sanatorium treatment; evaluating the effectiveness and safety of non-drug therapy; analyzing the interaction of non-drug therapy methods in patients with diseases of the maxillofacial region; facial area in need of medical rehabilitation and spa treatment; performing physiotherapy procedures.
8.	PC-12	Participation in solving research and scientific-applied problems in the field of health and medical sciences	PC-12. Willingness to participate in scientific research, analysis and public presentation of medical information based on evidence-based medicine and to participate in the introduction of new methods and techniques aimed at protecting public health and reducing dental morbidity.	Fundamentals of evidence-based medicine; main sources of medical information based on evidence-based medicine; methods and forms of public presentation of medical information;	To search for medical information based on evidence-based medicine; interpret the data of scientific publications; critically evaluate modern methods of diagnosis, prevention and treatment of diseases from the standpoint of evidence-based medicine;	Has practical experience in: Developing algorithms for examination and treatment of adults and children with dental diseases in accordance with the principles of evidence-based medicine; search and interpretation

				basic principles of medical scientific research.	to justify your choice of methods of diagnosis, prevention and treatment of dental diseases; prepare a presentation for public presentation of medical information, the results of scientific research.	of medical information based on evidence-based medicine; public presentation of medical information based on evidence-based medicine; partial participation in scientific research.
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#### 4. Sections of the discipline and competencies, which are formed in their study:

№	Competence code	Name of the discipline section	The content of the section in didactic units
1.	UC-1 PC- 1 PC- 2 PC-5 PC-6 PC-8 PC-9 PC-12	Prevention of caries; non-cariou lesions of the hard tissues of the teeth, periodontal diseases and oral mucosa in children of different ages.	Prevention of major dental diseases in children and adolescents, forms and methods of prevention. Etiology, pathogenesis, pathological anatomy of caries; pulpitis, periodontitis, non-cariou lesions of hard tissues of teeth, periodontal diseases and oral mucosa. Registration of medical documentation.
2.	UC-1 PC- 1 PC- 2 PC-5 PC-6 PC-8 PC-9 PC-12	Clinic, diagnosis of caries; pulpitis, periodontitis, non-cariou lesions of hard tissues of teeth in children of different ages.	Clinic, diagnosis, differential diagnosis of caries; pulpitis, periodontitis, non-cariou lesions of hard tissues of teeth in children and adolescents. Registration of medical documentation.
3.	UC-1 PC- 1 PC- 2 PC-5 PC-6 PC-8 PC-9 PC-12	Methods of treatment of diseases of hard tissues of teeth in patients of different ages	Methods of treatment of caries and non-cariou lesions of hard tissues of teeth in children and adolescents. Registration of medical documentation.
4.	UC-1 PC- 1 PC- 2 PC-5	Endodontic treatment of pulp and periodontal diseases in patients of different ages	Etiology, pathogenesis, pathological anatomy, clinic, diagnosis, differential diagnosis, methods of treatment and prevention of



	PC-6 PC-8 PC-9 PC-12		pulpitis, periodontitis in children and adolescents. Registration of medical documentation.
5.	UC-1 PC- 1 PC- 2 PC-5 PC-6 PC-8 PC-9 PC-12	Features of the course and treatment of periodontal diseases in patients of different ages	Etiology, pathogenesis, pathological anatomy, clinic, diagnostics, differential diagnosis, methods of treatment and prevention of periodontal diseases in children and adolescents. Registration of medical documentation.
6.	UC-1 PC- 1 PC- 2 PC-5 PC-6 PC-8 PC-9 PC-12	Anesthesia in the practice of a pediatric dentist.	Indications and contraindications to general and local anesthesia during dental manipulations in a pediatric dental clinic. The value of premedication. Types of local anesthesia, features of its implementation in children. Help with emergency conditions in the conditions of a children's dental clinic.
7.	UC-1 PC- 1 PC- 2 PC-5 PC-6 PC-8 PC-9 PC-12	Trauma of the teeth	Treatment of dislocations and fractures of teeth in children. Complications and their prevention.  Registration of medical documentation.

### 5. Volume of the academic discipline and types of academic work

Distribution of labor capacity of the discipline and types of educational work by semesters (total labor capacity of the discipline is 2 credit units (36 academic hours):

Type of academic work	Workload		Workload by semester (ACh)
	Volume in credit units (CU)	Volume in academic hours (Ah)	
Lectures, seminars, Practical training with the use of DET and EES (L)	1,3	44	44
Independent work of the student (IWS)	0,7	28	28
<b>TOTAL</b>	<b>2</b>	<b>72</b>	<b>72</b>

### Allocation of topics for lectures and practical sessions using DOT and E-Learning:

No . n/a	Topics of lectures and practical sessions	Volume (ACH)
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<b>7 SEMESTER</b> <b>PEDIATRIC RESTORATIVE DENTISTRY</b>		
1.	Prevention of major dental diseases in children and adolescents, forms and methods of prevention. Etiology, pathogenesis, pathological anatomy, caries, pulpitis, periodontitis in temporary and permanent teeth in children.	6
2.	Features of the clinical course of caries, pulpitis, periodontitis in temporary and permanent teeth in children. X-ray diagnosis of caries, pulpitis and periodontitis in temporary and permanent teeth in children of different ages.	6
3.	Diagnostic techniques for caries, pulpitis, periodontitis, differential diagnosis of caries, pulpitis, periodontitis in temporary and permanent teeth in children of different ages.	6
4.	Peculiarities of caries treatment in children. Modern restorative materials used for the treatment of caries in temporary and permanent teeth in children. Traditional and alternative technologies. Features of restorative materials and adhesive systems. Errors and complications in the treatment of dental caries in children.	7
5.	Peculiarities of treatment of pulpitis in temporary and permanent teeth in children of different ages. Dentist's tactics in the treatment of pulpitis in temporary and permanent teeth with unformed roots. Features of the application of restorative materials. Errors and complications in the treatment of pulpitis in children.	7
6.	Peculiarities of treatment of periodontitis in temporary and permanent teeth in children. The tactics of the dentist in the treatment of periodontitis in temporary and permanent teeth with unformed roots. Features of the application of restorative materials. Mistakes and complications in the treatment of periodontitis in children.	6
7.	Clinic, diagnosis and methods of treatment of traumatic injuries (dental hard tissue defects, pulpitis, periodontitis) of temporary and permanent teeth in children in the practice of pediatric dentistry. Errors, complications and their prevention.	6
<b>TOTAL</b>		<b>44</b>

#### **6. Distribution of the student's independent work (IWW) by type:**

No. n/a	Name of type of independent work for students	Volume in ACh	
		Semester	AC
1	<p>Work on the lecture material, which involves working through the lecture notes and the textbook;</p> <ul style="list-style-type: none"> <li>- searching (selecting) and reviewing literature and electronic sources of information on a problem, writing an essay (essay, report, research paper) on a given problem;</li> <li>-Doing your homework for the class;</li> <li>-Doing homework (problem solving, exercises);</li> <li>-learning the material to be studied independently (individual topics, paragraphs);</li> <li>-A workshop on an academic discipline using software;</li> <li>-preparing you for the practical exercises;</li> <li>-preparing for a test paper;</li> <li>- Preparation for the test on "Prevention of dental caries of the main dental diseases in children. Caries, pulpitis and</li> </ul>	7	28

	periodontitis in children in temporary and permanent teeth features of clinic, diagnosis and treatment".		
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*\*Types of independent work: work with literature and other sources of information on the unit under study, including in an interactive form, completing assignments from the work programme (group and/or individual) in the form of writing case histories, essays, reports, presentations; preparing to participate in classes in an interactive form (role and business games, trainings, game design, computer simulations, discussions), work with electronic educational resources on the educational portal*

### ABSTRACT TOPICS

1. Caries. Clinic, diagnosis. Treatment of initial forms of caries of temporary and permanent teeth and its effectiveness criteria.
2. Preparation of cavities of different localisation. Selection of filling materials.
3. Temporary tooth pulpitis in children. Etiology, pathogenesis, diagnosis, differential diagnosis. Features of the clinic.
4. Treatment of pulpitis of temporary teeth in children.
5. Permanent tooth pulpitis in children with formed and unformed roots.
6. Treatment of pulpitis of permanent teeth in children.
7. Errors and complications in the treatment of pulpitis. Criteria for the effectiveness of treatment.
8. Periodontitis of temporary teeth in children. Clinic, diagnosis, choice of treatment.
9. Periodontitis of permanent teeth with formed and unformed roots. Treatment. Selection of materials for canal filling.
10. Dental hard tissue malformations. Current methods of treatment.
11. Dental trauma: bruises, dislocations, fractures of the crown and root of the tooth. Etiopathogenesis, clinic, differential diagnosis.
12. Current treatments for trauma to temporary and permanent teeth in children. Mistakes, complications, prognosis.
13. Radiological diagnosis of diseases of the teeth and peritoneal tissues in childhood.
14. Peculiarities of the choice of method and local anaesthetic in children during outpatient oral interventions. Types of interventions. Complications.

### 7. Summary of content in didactic units

П/№	Competence code	Name of discipline section	Section content in didactic units
1.	UC-1 PK-1 PK-2 PK-5 PK-6 PC-8 PC-9 PC-12	Prevention of dental caries and its complications in temporary and permanent teeth in children	Prevention of major dental diseases in children and adolescents, forms and methods of prevention. Etiology, pathogenesis, pathological anatomy, caries, pulpitis, periodontitis in temporary and permanent teeth in children. Registration of medical documentation.
2.	UC-1 PC-1 PK-2 PK-5 PK-6 PC-8 PC-9 PC-12	Clinic of caries and its complications in temporary and permanent teeth in children.	Features of the clinical course of caries, pulpitis, periodontitis in temporary and permanent teeth in children. The preparation of medical documentation.
3.	UK-1 PK-1 PK-2 PK-5 PK-6 PC-8 PC-9	Diagnosis of caries and its complications in temporary and permanent teeth in children.	Diagnostic methods, differential diagnosis of caries, pulpitis, periodontitis in temporary and permanent teeth in children. The preparation of medical documentation.

	PC-12		
4.	UK-1 PK-1 PK-2 PK-5 PK-6 PC-8 PC-9 PC-12	Treatment methods for caries in temporary and permanent teeth in children of different ages.	Peculiarities of caries treatment in children. Modern filling materials used in the treatment of caries in temporary and permanent teeth in children. Errors, complications in the treatment of caries in children. Registration of medical documentation.
5.	UC-1 PK-1 PK-2 PK-5 PK-6 PC-8 PC-9 PC-12	Endodontic treatment of pulpitis in temporary and permanent teeth in children of different ages.	Peculiarities of treatment of pulpitis in temporary and permanent teeth in children. Dentist tactics in the treatment of pulpitis in temporary and permanent teeth with unformed roots. Errors and complications in the treatment of pulpitis in children. Registration of medical documentation.
6.	UK-1 PK-1 PK-2 PK-5 PK-6 PC-8 PC-9 PC-12	Endodontic treatment of periodontal disease in patients of different ages	Peculiarities of treatment of periodontitis in temporary and permanent teeth in children. The tactics of the dentist in the treatment of periodontitis in temporary and permanent teeth with unformed roots. Mistakes and complications in the treatment of periodontitis in children. The preparation of medical documentation.
7.	UK-1 PK-1 PK-2 PK-5 PK-6 PC-8 PC-9 PC-12	Trauma to temporary and permanent teeth in children of different ages	Clinic, diagnosis and treatment of traumatic injuries of temporary and permanent teeth in children in the practice of pediatric dentistry. Errors, complications and their prevention.

## 8. Educational, methodological and information support of the discipline (printed, electronic publications, Internet and other network resources).

### 8.1. List of basic literature\*:

No. p / p	Name according to bibliographic requirements	Number of copies	
		At the department	In library
1	Pediatric dentistry : textbook / ed . Yanushevich O.O., Kiselnikova L.P., Topolnitsky O.Z. - M. : GEOTAR-Media, 2020.	1	10
2	Dentistry of children 's age : a textbook / ed . Mammadova Ad.A., Geppe N.A. - M. : GEOTAR-Media, 2020.	1	10
3	Manual for industrial (clinical) practice of the direction "Assistant to the pediatric dentist" S.N. Gromov,S.Yu. Kosyuga,O.A. Makarchuk,O.Sh. Ryabova,E.V. Kolotova	1	10

	Nizhny Novgorod, PIMU-2019.-100p.		
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*\*the list of basic literature should contain textbooks published over the past 10 years (for the disciplines of the humanitarian, social and economic cycle over the past 5 years), textbooks published over the past 5 years.*

### 8.2. List of additional literature\*:

No. p / p	Name according to bibliographic requirements	Number of copies	
		At the department	In library
1	Pediatric therapeutic dentistry: national guidelines + electronic disk / ed. VC. Leontiev, L.P. Kiselnikova. - M.: GEOTAR-Media 2021. - 896 p.: - (national leadership)	one	one
2	Increased dental abrasion : textbook / M. Y. Saakyan, I. P. Goryacheva, A. A. Plishkina ; FSBEI HE «PRMU» MOH Russia. - N. Novgorod : Publishing House of Privolzhskiy Research Medical University, 2021	one	one

*\*additional literature contains additional material to the main sections of the program of the discipline.*

### Educational and methodological materials published by the staff of the Department of Pediatric Dentistry and used by both teachers and students:

No./p	Teaching aid, monograph	The authors)	Edition
1.	Prevention and treatment of caries in temporary teeth (monograph)	<i>O.V. Kolesova, S.Yu. Kosyuga L.N. Kazarina</i>	Nizhny Novgorod, NGMA.-2015.-98s.
2.	Manual for industrial (clinical) practice of the direction "Assistant to the pediatric dentist"	<i>S.N. Gromov, S.Yu. Kosyuga, O.A. Makarchuk, O.Sh. Ryabova, E.V. Kolotova</i>	Nizhny Novgorod, PIMU-2019.-100p.

### 8.3. Electronic educational resources for teaching academic subjects

#### 8.3.1. Internal Electronic Library System of the University (IELSU)

<i>Name of the electronic resource</i>	<i>Brief description (content)</i>	<i>Access conditions</i>	<i>Number of users</i>
Internal Electronic Library System (VEBS) PIMU	Proceedings of PIMU staff (textbooks, manuals, collections of tasks, methodological manuals, laboratory work, monographs, etc.)	Access by individual login and password from any computer and mobile device	Not limited

### 8.3.2. Electronic educational resources acquired by the University

No.	<i>Name of the electronic resource</i>	<i>Brief description (content)</i>	<i>Access conditions</i>	<i>Number of users</i>
one	Database "Medicine. Healthcare (VO) and "Medicine. Healthcare (SPO)" as part of the database "Electronic library of a technical university (ELS "Student Consultant"	Textbooks and teaching aids for higher medical and pharmaceutical education.	Access by individual login and password from any computer and mobile device	Not limited
2.	Database "Doctor's Consultant. Electronic Medical Library»	National guidelines, clinical guidelines, textbooks, monographs, atlases, reference books, etc.	Access by individual login and password from any computer and mobile device	Not limited
3.	Database "Electronic Library System "Bukap"	Educational and scientific medical literature of Russian publishing houses, incl. translated editions. The collection of subscription publications is formed point by point.	Access by individual login and password from any computer and mobile device. From university computers - access is automatic.	Not limited
4.	Electronic periodicals in the database "SCIENTIFIC ELECTRONIC LIBRARY	Electronic medical magazines	Access - from the computers of the university.	Not limited

eLIBRARY"			
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### 8.3.3 Open access resources

<i>Name of the electronic resource</i>	<i>Brief description (content)</i>	<i>Access conditions</i>
Federal Electronic Medical Library (FEMB)	Includes electronic analogues of printed publications and original electronic publications that have no analogues recorded on other media (dissertations, abstracts, books, magazines, etc.). [Electronic resource] - Access mode: <a href="http://neb.rf/">http://neb.rf/</a>	from any computer on the Internet
Scientific electronic library eLIBRARY.RU	The largest Russian information portal in the field of science, technology, medicine and education, containing abstracts and full texts of scientific articles and publications. [Electronic resource] - Access mode: <a href="https://elibrary.ru/">https://elibrary.ru/</a>	from any computer on the Internet.
Scientific electronic library of open access CyberLeninka	Full texts of scientific articles with annotations published in scientific journals in Russia and neighboring countries. [Electronic resource] - Access mode: <a href="https://cyberleninka.ru/">https://cyberleninka.ru/</a>	from any computer on the Internet
Russian State Library (RSL)	Abstracts for which there are copyright agreements with permission for their open publication [Electronic resource] - Access mode: <a href="http://www.rsl.ru/">http://www.rsl.ru/</a>	from any computer on the Internet
Reference and legal system "Consultant Plus"	Federal and regional legislation, judicial practice, financial advice, legislative comments, etc. [Electronic resource] - Access mode: <a href="http://www.consultant.ru/">http://www.consultant.ru/</a>	from any computer on the Internet

## 9. Material and technical support for mastering an academic discipline.

### Lectures with the use of DOT and EOS:

1. Electronic presentation set
2. Lecture hall, screen, projector, laptop

### *Tables and albums.*

#### *one.Tables, posters*

- 1.1 Elements of lesions of the oral mucosa
- 1.2 Clinical manifestations of acute herpetic stomatitis in children
- 1.3 Classification of diseases of the oral mucosa
- 1.4 Clinical manifestations of diphtheria in the oral cavity.
- 1.5. Clinical manifestations of drug-induced stomatitis.

Presentations, transparencies, albums, videos:

- 1.Presentation

- 1.1. Acute herpetic stomatitis in children. Clinic, diagnosis, treatment.
- 1.2. Recurrent aphthous stomatitis. Clinic, diagnosis, treatment.
- 1.3. Candidiasis. Etiology, pathogenesis, clinic, diagnostics, differential diagnosis, treatment.
- 1.4. Multiform exudative erythema. Clinic, diagnosis, treatment.
- 1.5. Infectious diseases and their manifestations on the oral mucosa. (chickenpox, measles, scarlet fever, infectious mononucleosis, diphtheria), diagnosis, treatment.
- 1.6. Anesthesia in the practice of pediatric dentistry.
- 1.7. Methods of examining a patient in a pediatric dentistry clinic.
- 1.8. Cheilitis. Clinic, diagnosis, treatment.
- 1.9. Glossitis. Clinic, diagnosis, treatment.
- 1.10. Traumatic injuries of the oral mucosa in children. Clinic, diagnosis, treatment.
2. Color and black and white slides
- 2.1. Manifestation of HIV infection.
- 2.2. Candidiasis. Oral manifestations in children.
- 2.3. Herpes simplex virus. Manifestations of acute and chronic herpetic infection in the oral cavity in children.
- 2.4. Manifestations of infectious diseases in the oral cavity in children.
- 2.5. Injuries of the oral mucosa in children.

### **9.1. List of premises\* required for conducting classroom studies in the discipline.**

#### Workshops:

1. Dental rooms equipped with the necessary equipment and equipment.
2. X-ray room.
3. Sterilization.

#### *Dental instruments, devices:*

1. Dental instruments (tweezers, probes, mirrors, excavators, trowels, pluggers, matrix holders, matrices, tips, burs, polishers, carborundum stones, rubber bands and brushes in assortment, endodontic instruments in assortment, surgical forceps for removing temporary and permanent teeth, elevators, curettage spoons, spatulas, etc.).
2. Dental filling materials for filling root canals and carious cavities.
3. Dry oven, autoclave.
4. Germicidal lamp.
5. Bixes for sterilization.
6. Negatoscope.
7. Odontosensimeter, Digitest.
8. Apparatus Diathermocoagulator.
9. Apparatus Apexlocator.
10. Apparatus Sikod
11. Amalgamator.
12. Tonometer.
13. Phonendoscope.
14. Assistant's chair.
15. Dentist's chair.
16. Dentist's table.
17. Dental unit (DabiAtlant, AA389A, Azimuth 100).
18. MiniPieson.
19. Assist.
20. Televisions and VCRs.



21. Laptop and multimedia projector.

*Training stands:*

1. Information (announcements).
2. Plans of lectures and practical classes, lists of recommended basic and additional literature for study.
3. Oral hygiene, hygiene products and items.
4. Prevention of dental caries
5. Prevention of periodontal diseases.
6. Prevention of diseases of the oral mucosa in children.
7. Prevention of inflammatory diseases of the maxillofacial region
8. Rules for disinfection and sterilization of dental instruments.
9. A set of orthopantomograms and intraoral radiographs.
10. Treatment, prevention of periodontal and oral mucosa diseases.
11. Recommended literature on pediatric dentistry.

*Training dummies:*

1. Teeth with carious cavities of 1-6 Black classes.
2. Phantom head.
3. Phantom of oral hygiene.
4. Human teeth are artificial and natural.
5. Phantom for endodontic manipulations.
6. Workplace for each student (dental unit, dental chair, dentist's chair, dentist's table, doctor's desk).
7. Phantom jaws and toothbrushes for rational oral hygiene.
8. Children's skull
9. Teenage skull
10. Embryogenesis of facial tissues
11. Models of jaws.
12. Chicken thighs for learning and performing suturing techniques
13. Pig heads for demonstration of operations on the periodontium, oral mucosa, study and implementation of tooth extraction techniques and outpatient surgery techniques.

**8. The list of equipment\* required for classroom training in the discipline.**

1. Set of electronic presentations
2. Lecture hall, screen, projector, laptop, screen, TV, video camera, slidescope, VCR, PC, video and DVD players, monitors, sets of slides, tables / multimedia visual materials in various sections of the discipline, videos, negatoscope, boards and others

**9.3 Educational technologies in an interactive form used in the process of teaching the discipline:**

1. role playing
2. business games
3. training
4. game design
5. computer simulation
6. situation-case etc.;

non-imitation technologies:

1. lecture (problematic, visualization, etc.),
2. discussion (with and without brainstorming),

3. programmed learning, etc.

Only 25% of interactive classes from the volume of classroom work.

**9.3.1. Examples of educational technologies in an interactive form:**

No.	Section name	Forms of classes using active and interactive educational technologies
1	Anatomical and physiological features of the structure of the oral mucosa in children of different ages. Methods of dental examination of children and adolescents. Dental and medical documentation.	Role-playing game
2	Features of the course and diagnosis of traumatic injuries of the oral mucosa in children of different ages.	Seminar-discussion
3	Features of the course, diagnosis and treatment of lesions of the oral mucosa in viral and bacterial infections in children.	Lecture - visualization
	Features of the course and treatment of lesions of the oral mucosa in children with specific infections.	Visualization Lecture
4	Features of the course and treatment of lesions of the oral mucosa in children caused by allergic reactions.	Seminar-discussion
6	Features of the course and treatment of lesions of the oral mucosa in children with general somatic pathology.	Lecture - visualization
7	Features of the course and treatment of diseases of the mucous membrane of the tongue and the red border of the lips in children.	Seminar-discussion

**Role play design.**The methodology of the game can be demonstrated on the example of simulating a clinical situation - generalized periodontitis of varying severity (it can be mild, moderate or severe). There are several stages in the role-playing game.

- determining the goal of the game, developing a game scenario depending on the topic of the lesson: studying the clinic, diagnosis, differential diagnosis of generalized periodontitis, of varying severity;
- instructing the participants: the moderator (the role of the teacher or educator) names the topic of the lesson, determines its significance, draws students' attention to the need to highlight five competencies (especially legal aspects) that should be analyzed on this particular topic.
- distribution of roles, determination of the features of their behavior, depending on the role. The educational tasks of each are determined based on the game roles.

**Immersion in the game.** Participants of the game are determined. In a role-playing game, learning takes place in the process of joint activity, but at the same time, each participant performs (solves) his task, in accordance with the role.

Students select cards with a given role in the "blind", determine the range of questions in accordance with the job responsibilities associated with the reception of a patient with generalized periodontitis. The "patient" card indicates the diagnosis, severity and aggravating moments (background disease, condition of the dentition: deep bite, partial absence of teeth, short frenulum or any other concomitant pathology). The rest of the participants in the game

should not know the diagnosis.

**Game process.** The student-patient must formulate the complaints with which patients usually go to the doctor in this situation, model the clinical signs of the disease, in the form of individual symptoms characteristic of this particular case - generalized periodontitis of a certain severity.

The task of the doctor was to recreate the picture of the disease from individual symptoms, supplement it with the results of appropriate examination methods, and make a diagnosis that is known only to the student - the patient. At this stage of the game, the main points that were taken into account when discussing the course of the game were the observance of the procedure for examining the patient, compliance with the norms of ethics and deontology.

The student dentist clarifies the patient's complaints, details the conditions for the occurrence and development of these symptoms, how they stop. After a complete survey (anamnesis of the development of the disease, life), he identifies the leading symptoms. Conducts a detailed examination of the patient (external examination, examination of the oral cavity, the condition of hard tissues of the teeth), reveals the objective symptoms of the alleged diagnosis, determines and justifies the need for additional examination methods (X-ray, osteometry, Kulazhenko test, etc.) and their significance in making the final diagnosis. He clarified the need for a consultation consisting of an orthodontist, a surgeon or other related specialists to draw up a protocol for the complex treatment of a patient.

The radiologist describes the patient's x-ray, drawing attention to the degree of bone resorption, which determines the severity of the course of generalized periodontitis.

The lab doctor interprets the tests, identifying changes in the data and their implications for the clinic (for example, a blood test).

Head the dental department analyzes the work of the doctor, in terms of compliance with ethics, deontology, asepsis and antisepsis, the choice of drugs, the validity of their appointment.

An expert-analyst analyzes the work of all participants in the game step by step, evaluates the stages of work with the patient, and assigns marks according to the scorecard.

At the final stage, it is important to discuss the course of the game, the moderator summarizes the results of the game, discusses the performance of the participants, evaluates the participants in the game. The teacher, noting the positive aspects and shortcomings of the performers of the roles, encourages discussion, gives the participants the opportunity to defend individual positions, determines the level of assimilation of knowledge, professional skills and abilities on this topic.

### **Seminar-discussion**

#### *Preparatory stage.*

During the preparation period (7–10 days before the seminar), during independent work, a speaker, co-speaker are determined and the leaders of the initiative groups for each issue are determined. Each leader prepares a 5-7 minute speech in advance, revealing the relevance and significance of the issue under consideration, its main problems. The composition of the expert group consisting of two people is determined to take into account the performances and give individual marks. During this period, a trainee is also assigned to lead the seminar.

His responsibilities include:

- observance of the time limit allotted for each question; - management of the discussion of the issue (whom to give the floor for the report, ensuring order and discipline when discussing the issue); - providing assistance to each group responding to interrogations, etc.

#### *Main stage.*

The seminar begins with an introductory speech by the teacher. After that, it is desirable to hear and discuss the report, as well as hear the opponent. Then the teacher determines the composition of the initiative group on the first question. After determining the composition of the group, he, together with the leader of the seminar, takes his place at two tables facing the entire audience.

The facilitator gives the floor for a 6-7-minute presentation to the group leader, and then questions on the essence of the first question of the seminar, and the initiative group answers them.

This part of the workshop is the most important. Each participant not only asks questions, but also puts forward his own hypotheses, argues, proves his case, repeatedly refers to lecture notes and manuals to clarify his knowledge and find more convincing and accurate arguments. Thus, the main and basic requirement for organizing work on such a seminar is the following: the trainees should solve the problems posed by themselves as often as possible.

Speaking about the method of setting questions and answering them, it should be noted that the person asking the question may not address everyone, but a specific person in the initiative group. If this is not the case, then the facilitator regulates the even distribution of questions among the group members. After the time allotted for the question, the facilitator gives the floor to the teacher, who makes a conclusion on the issue (reveals what is the essence of this issue, indicates what to pay special attention to, gives answers to questions that did not receive proper coverage, etc.). Then all subsequent questions of the seminar are discussed in the same way.

*The final stage:*

- the results of the seminar are summed up; - the presentation of the expert group and the head of the seminar is heard with an assessment of the work of each trainee;
- a survey of trainees is carried out;
- Set tasks for independent work.

It should be noted that holding a seminar using the method of active dialogue requires some preparatory work and continuous improvement of the methodology. Conducting a seminar with this method allows you to achieve the goal only if you use the various elements of active learning methods in an integrated manner.

**A set of licensed and freely distributed software, including domestic production**

<b>Item no.</b>	<b>Software</b>	<b>number of licenses</b>	<b>Type of software</b>	<b>Manufacturer</b>	<b>Number in the unified register of Russian software</b>	<b>Contract No. and date</b>
1	Wtware	100	Thin Client Operating System	Kovalev Andrey Alexandrovich	1960	2471/05-18 from 28.05.2018
2	MyOffice is Standard. A corporate user license for	220	Office Application	LLC "NEW CLOUD TECHNOLOGIES"	283	without limitation, with the right to receive

	educational organizations, with no expiration date, with the right to receive updates for 1 year.					updates for 1 year.
3	LibreOffice		Office Application	The Document Foundation	Freely distributed software	
4	Windows 10 Education	700	Operating systems	Microsoft	Azure Dev Tools for Teaching Subscription	
5	Yandex. Browser		Browser	«Yandex»	3722	
6	Subscription to MS Office Pro for 170 PCs for FSBEI HE "PRMU" of the Ministry of Health of Russia	170	Office Application	Microsoft		23618/HN10030 LLC "Softline Trade" from 04.12.2020

**10. List of changes to the working program (to be filled out by the template)**

Federal State Budgetary Educational Institution of Higher Education  
"Privolzhsky Research Medical University"  
Ministry of Health of the Russian Federation  
(FSBEI HE "PRMU" of the Ministry of Health of Russia)

