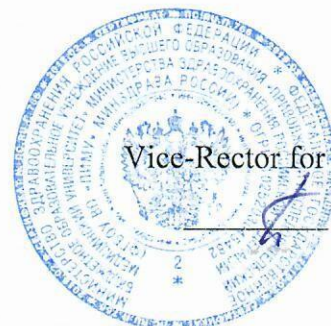


Federal State Budgetary Educational Institution of Higher Education  
"Privolzhsky Research Medical University"  
Ministry of Health of the Russian Federation



APPROVED

Vice-Rector for Academic Affairs

E.S. Bogomolova

31 August 2021

**WORKING PROGRAMM**  
**Elective discipline**

Name of the discipline (according to the working curriculum): **NON-CARIOUS LESIONS OF HARD DENTAL TISSUES**

Specialty: **31.05.03 DENTISTRY**

Qualification: **DENTIST**

Department: **THERAPEUTIC DENTISTRY**

Mode of study: **FULL-TIME**

Labor intensity of the academic discipline: **108 academic hours**

Nizhny Novgorod  
2021

The working program has been developed in accordance with the Federal State Educational Standard for the specialty 05/31/03 "DENTISTRY" approved by order of the Ministry of Science and Higher Education of the Russian Federation No. 984 dated August 12, 2020.

**Program Developers:**

1. Uspenskaya O.A., Doctor of Medical Sciences, Associate Professor, Head. Department of Therapeutic Dentistry;
2. Spiridonova S.A., Candidate of Medical Sciences, Associate Professor of the Department of Therapeutic Dentistry.

**Reviewers:**

1. Belenova I.A., Doctor of Medical Sciences, Professor, Head of the Department "Training highly qualified personnel in dentistry", FSBEI HE "Voronezh State Medical Institute named after N.N. Burdenko" of the Ministry of Health of the Russian Federation, Deputy Head of the European Department of Preventive, Personalized, Preventive Dentistry at the European Association for Preventive, Personalized, Preventive Medicine (EPMA - DPPPDP).
2. Sahakyan M.Y., Doctor of Medical Sciences, Associate Professor, Head. Department of Orthopedic Dentistry and Orthodontics, Federal State Budgetary Educational Institution of Higher Education "PIMU" of the Ministry of Health of the Russian Federation. ;

The program was reviewed and approved at a meeting of the Department of Therapeutic Dentistry Minutes No. 9 dated April 13, 2021

Head of the Department of Therapeutic Dentistry, MD, Associate Professor

O.A. Uspenskaya \_\_\_\_\_



May 27, 2021

AGREED

Deputy Head of EMA ph.d. of biology \_\_\_\_\_



Lovtsova L.V.

(signature)

May 27, 2021

## 1. Goals and objectives of mastering the discipline

**Therapeutic dentistry** is the leading among dental disciplines, since the main place in it is occupied by the problems of not only treatment, but also the prevention of dental caries, periodontal diseases and oral mucosa. There is a close relationship between restorative dentistry and other clinical disciplines, restorative dentistry is the most important preventive section among all other profiles of dentistry - surgical and orthopedic.

The therapeutic section of dentistry combines a number of diseases of the oral cavity (diseases of the teeth and periodontal tissues, pathology of the oral mucosa and tongue), which are subject to mainly conservative, and often complex etiopathogenetic treatment with the participation of dental surgeons, orthopedists, endocrinologists, gastroenterologists and other specialists.

Practical skills acquired at the Department of Therapeutic Dentistry are the basis for all subsequent creative activities of a dentist.

### 1.1. The purpose of teaching an elective discipline

The program of elective disciplines is aimed at an in-depth study of therapeutic dentistry - the leading among dental disciplines, since the main place in it is occupied by the problems of not only treatment, but also the prevention of major dental diseases.

The purpose of teaching therapeutic dentistry as a discipline of choice is an in-depth study of the causes, mechanisms of development, modern methods of diagnosis and treatment of diseases of the teeth, periodontium and oral mucosa.

The manual and theoretical knowledge acquired in the preclinical course allows one to more deeply and fully master the diagnosis and treatment of the pathology of hard dental tissues of non-carious origin.

For better assimilation of the material, the educational process is as close as possible to the real work environment in the clinic, which enables students to better master the practical side of the matter. The topics studied are worked out in two stages: theoretically, then practically in the dental office, which helps to reflect the essence of the topic being studied from different positions. This tactic makes it possible to better meet the requirements of bringing teaching closer to practical medicine, to ensure the specific nature of the pedagogical process. Practical classes are held in direct work with patients, which is important in acquiring manual skills and of great educational value - ethics, aesthetics, deontology.

### 1.2. The tasks of studying the discipline of choice

*The main task* is to develop students' knowledge about the diagnosis and treatment of non-carious diseases of hard tissues and methods for their prevention. When studying this topic, both in therapeutic dentistry and in pediatric dentistry, much attention is paid to the provision of emergency care, the actions of a dentist in emergency situations in the treatment of non-carious diseases.

In the practice of therapeutic dentistry, the student must master the methods of preparing carious cavities of grades 1-5, observing the technique and stages of preparation, learn how to carry out antiseptic treatment of the prepared cavity, choosing an antiseptic correctly and rationally. Work out the technique of mixing materials for temporary and permanent fillings, medical and insulating pads. An important task is the choice of filling material, its application, taking into account the localization of the cavity. In the process of studying, the student gets the opportunity to use Soviet and foreign filling materials, which allows him to work out manual skills and abilities.

Students master the methods of applying devitalizing pastes, learn to properly open the pulp chambers of all anatomical groups of teeth, trepan the crowns of intact teeth, remove the pulp after devitalization and decay of the pulp from the root canal. Mastering endodontic manipulations, high-quality filling of canals and the imposition of a permanent filling allows you to save the tooth as an organ for many years. Having learned to analyze radiographs, the student gets the opportunity to confirm the diagnosis, evaluate the quality of endodontic treatment, filling canals and carious cavities.

Mastering the skills of determining non-carious diseases of hard tissues of teeth that form before and after eruption, as well as genetically determined diseases. Be able to differentiate them from each other. It is correct to choose the method of treatment and prevention, not only of non-carious lesions, but also of periodontal diseases, which often accompany this pathology considered by students in the discipline of their choice. The student must have the skills to read orthopantomograms, panoramic radiographs, and also be proficient in the technique of applying periodontal bandages, open and closed curettage, and assist in flap surgery.

In the lecture course and in practical classes, much attention is paid to deontological principles, the formation of the worldview of a generalist doctor who is able to provide qualified dental care to children, pre-conscripts, pregnant women, and people suffering from chronic diseases.

*The process of studying the discipline is aimed at developing the following universal competencies (MC) in the graduate:*

Able to carry out a critical analysis of problem situations based on a systematic approach, to develop an action strategy (UK-1) ;

*The process of studying the discipline is aimed at developing the following professional competencies (PC) in the graduate:*

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 (PC-12) ;

Willingness to collect and analyze complaints and other information from the patient (relatives / legal representatives), his medical history, interpretation of examination results, laboratory, instrumental, pathoanatomical and other studies in order to recognize the condition or establish the presence or absence of a dental disease, symptoms, syndromes of dental diseases, the establishment of nosological forms in accordance with the International Statistical Classification of Diseases and Related Health Problems, and other regulatory documents of the Ministry of Health of the Russian Federation (Procedure for the provision of medical care, Standard of Medical Care, Clinical Recommendations on the provision of medical care, etc.) (PC -6).

Possibility and willingness to conduct preventive medical examinations, medical examinations of various categories of citizens and the implementation of dispensary observation of patients with dental pathology (PC-2) ;

With the ability to determine the tactics of managing patients with various dental diseases in accordance with the Clinical recommendations and other regulatory documents of the Ministry of Health of the Russian Federation on an outpatient basis and in a day hospital, taking into account the age of the patient (PC-7) .

As a result of studying the discipline

**STUDENT SHOULD KNOW:**

— stages of development of therapeutic dentistry, the role of leading scientists in the development of the discipline, the basics of organizing dental care in the Russian Federation. Principles of dental office equipment;

– definition, classification, etiology and pathogenesis of non-carious diseases of hard tissues of teeth that occur before and after eruption;

– pathological anatomy, clinic, differential diagnostics, methods of treatment and prevention of non-carious diseases of hard dental tissues;

- possible errors and complications arising in the treatment of non-carious diseases of hard dental tissues, their elimination and treatment;

**STUDENT SHOULD BE ABLE TO:**

- to conduct a survey of patients in order to diagnose non-carious diseases of hard tissues of teeth and caries;

- to determine the degree of damage to hard tissues in non-carious diseases;

- determine the index of oral hygiene according to Fedorov - Volodkina, according to

Green-Vermillion;

- describe radiographs;
- determine the degree of tooth mobility (I, II, III);
- determine the type of plaque on the teeth, tartar, its color, consistency;
- determine the state of the anatomical areas of the gums (free and attached gums);
- determine the depth of the pockets with a graduated probe;
- to determine the presence of subgingival tartar, discharge from pockets;
- carry out drying and vital staining of enamel in order to identify carious spots;
- prescribe and conduct training in rational oral hygiene;
- to carry out therapeutic measures for enamel remineralization in order to prevent and treat non-carious lesions of the teeth;
- to carry out application, infiltration and conduction anesthesia for the purpose of painless treatment of non-carious lesions of hard tissues of the tooth;
- to choose and carry out a rational method of treatment of non-carious lesions of the teeth, depending on the clinical manifestations and the state of the body as a whole;
- prepare cavities of I - VI classes of Black, atypically located cavities;
- carry out antiseptic treatment and drying of cavities in the hard tissues of the tooth;
- mixing materials for temporary and permanent fillings, medical and insulating linings;
- apply medical and insulating pads, temporary fillings and dressings, fillings from cements, amalgam, polymeric materials (acrylic, epoxy, composite);
- seal intact fissures of teeth with sealants;
- grind and seal seals;
- remove temporary and permanent fillings;
- remove the pulp after devitalization from the root canal;
- to carry out instrumental, drug treatment of the root canal, its drying, determining the degree of its patency;
- seal root canals with pastes and sealants without using and using pins;
- remove fragments of instruments from the root canal;
- to carry out therapeutic measures in case of damage to the oral mucosa with arsenic salts;
- carries out medical manipulations in case of perforation of the bottom and walls of the coronal cavity;
- to carry out therapeutic manipulations to eliminate complications associated with the treatment of caries and its complications;
- remove dental deposits: plaque, above - and subgingival tartar;
- polish teeth after removing dental deposits;
- correctly draw up a medical history and other medical documentation (referrals to other departments, etc.).

**STUDENT SHOULD OWN:**

- methods of preparation, mechanical and drug treatment and filling of cavities in the treatment of non-carious lesions of hard tissues;
- methods of treatment of non-carious lesions of hard dental tissues;
- methods of remotherapy;
- whitening methods;
- methods of mechanical and drug treatment of root canals;
- methods of filling root canals;
- methods of treatment of periodontal diseases;
- methods of treatment of diseases of the oral mucosa;
- methods of injection and non-injection local anesthesia;
- methods of treatment of pulpitis, apical periodontitis and caries;
- methods of professional oral hygiene

- fissure sealing techniques.

**To fulfill this provision**

**The teacher sets himself the following tasks:**

1. By his personal example, demeanor, appearance, technique of examination and communication with the patient - to demonstrate to the student the basic provisions that must be observed in communicating with the patient, the ability to get in touch with him.
2. Demonstrate in practice a sample of a consistent methodical examination of the patient, to the maximum extent possible to show the symptoms of a particular disease.
3. Actively involve students in conversations with patients, in individual stages and moments of patient examination (palpation, percussion, probing, identification of various symptoms) and thereby facilitate their first independent steps, help overcome the "barrier" in communicating with patients.
4. Analyzing the data obtained during the collection of anamnesis and objective data, give an example of clinical thinking at the patient's chair.
5. Involve students in primary preventive measures to reduce dental diseases, as well as in conducting health education work (issuing health bulletins, brochures, writing lectures and talks on topical dental topics for patients).
6. The study of the disease of hard tissues of the tooth, pulp, periodontal, periodontal and oral mucosa is accompanied by a demonstration of patients, analysis of the anamnesis, etiology and course of the disease, the treatment of pathology is complex and local, focusing on modern aspects in the practice of treating a particular disease.

The practical orientation of the classes is realized by involving students in direct work with patients, which contributes to the fulfillment of the main task: to teach students not only to know, but also to be able to.

**2. The place of discipline in the structure of the PEP VO Academy**

Therapeutic dentistry is a core discipline of paramount importance. The main task of the Department of Therapeutic Dentistry is the theoretical and practical training of a doctor who is able to solve the issues of prevention, diagnosis and treatment of such dental diseases as non-carious lesions of hard dental tissues. The general preventive orientation of the therapeutic dentist will be most fully disclosed to the student during the general medical examination of the population, which allows you to get acquainted with all dental diseases that form before eruption and after eruption, their local and general treatment, preventive manipulations, as well as recommendations and advice that will certainly accompany treatment. doctor's preventive work.

Based on the knowledge gained by the student at the general clinical, general biological, dental departments and the department of childhood diseases, to teach students the features of prevention, clinic, diagnosis and treatment of dental diseases. Prepare a doctor who is able to work in a medical institution after completing an internship.

**2.1. The list of disciplines indicating the sections (topics), the assimilation of which by students is necessary for the study of this discipline:**

- 2.1. The topic "Non-carious diseases of hard dental tissues" is a section of therapeutic dentistry. Professional cycle (discipline of choice).
- 2.2. To study the discipline, knowledge, skills and abilities are necessary, formed by the previous disciplines:

**2.2.1. *pathological physiology.***

Knowledge - Inflammation. Pathology of thermoregulation. Fever. Tumors. Allergy. Somatic diseases.

Skills - to identify the presence of inflammation, allergic reactions, tumors, general somatic diseases.

Skills - to determine the severity and severity of the process

### 2.2.2. Pathological anatomy.

Knowledge - Inflammation. Necrosis. Regeneration. Injuries.

Skills - to carry out diagnostic measures, probing, palpation, determining the viability of the pulp;

Skills - to distinguish various pathological processes from each other.

### 2.2.3. Pharmacology.

Knowledge - Antiseptics in the clinic of therapeutic dentistry.

Enzymes. Antibiotics. Antimicrobial and antiparasitic agents. Means that affect tissue metabolism. Antidotes and complexones.

Tranquilizers and sedatives. Narcotic and non-narcotic analgesics. Local anesthetic drugs.

Skills - the choice of the necessary drug, depending on the pathology that occurred before and after teething.

Skills - write prescriptions for drugs for remineralizing therapy.

2.3. And the study of the discipline is necessary for the knowledge, skills and abilities formed by subsequent disciplines/practices:

Department of Therapeutic Dentistry - graduating department.

## 3. The results of mastering the discipline and indicators of the achievement of competencies.

The study of the discipline is aimed at developing the following universal (UK), general professional (OPK) and professional (PC) competencies among students:

№	Competence code	The content of the competence (or its part)	Code and name of the competence acquisition metric	As a result of mastering the discipline, the students should:		
				know	Be able to	Own
1.	UC-1	Able to carry out a critical analysis of problem situations based on a systematic approach, develop an action strategy	IET 1.1 Knows: methods of critical analysis and evaluation of modern scientific achievements; basic principles of critical analysis IUK 1.2 Able to: gain new knowledge based on analysis, synthesis, etc.; collect data on complex scientific problems related to the professional field; search for information and solutions based on action, experiment and experience IUK 1.3 Has practical experience: researching the problem of professional activity using analysis, synthesis and other methods of intellectual activity; developing an action strategy to solve professional problems	Principles and methods of search, analysis and synthesis of information.	Apply the principles and methods of searching, analyzing and synthesizing information; Competently, logically, reasonably form their own judgments and assessments.	Practical skills of searching, analyzing and synthesizing information.
2	PC-2	Able to recognize conditions arising from	IPC 2.1 Knows: Normative legal acts	pathological	prescribe and conduct	methods of preparation,

		<p>sudden acute diseases, exacerbation of chronic diseases without obvious signs of a threat to the patient's life and requiring urgent medical care, recognize conditions that pose a threat to the patient's life including conditions of clinical death (stopping vital functions of the human body (blood circulation and/or respiration), requiring the provision of emergency medical care</p>	<p>regulating the procedures for conducting preventive medical examinations and medical examinations</p> <p>The main criteria for a healthy lifestyle and methods for its formation</p> <p>Socio-hygienic and medical aspects of alcoholism, drug addiction, substance abuse, the basic principles of their prevention</p> <p>Forms and methods of sanitary and hygienic education among patients (their legal representatives), medical workers</p> <p>Features of specific and non-specific prevention of dental diseases</p> <p>The main hygienic measures of a health-improving nature that promote health and prevent the occurrence of dental diseases</p> <p>Etiology, pathogenesis, prevention of dental diseases</p> <p>Fundamentals of Preventive Medicine</p> <p>Stages of planning and implementation of community programs for the prevention of dental diseases</p> <p>IPC 2.2 Able to:</p> <p>Conduct health and hygiene education among children and adults (their legal representatives) and medical workers in order to form a healthy lifestyle and prevent dental diseases</p> <p>Carry out health education among children and adults with dental diseases in order to form a healthy lifestyle and prevent dental diseases</p> <p>To form in children and adults (their legal</p>	<p>anatomy, clinic, differential diagnosis, methods of treatment and prevention of caries; pulpitis, periodontitis, periodontal diseases and oral mucosa; methods and means used in the medical examination, dispensary groups depending on the dental disease</p>	<p>training in rational oral hygiene; carry out therapeutic measures for enamel remineralization in order to prevent and treat caries and non-carious lesions of the teeth; carry out comprehensive measures for the prevention of caries; determine the index of oral hygiene according to Fedorov - Volodkina, according to Green-Vermillion; determine the type of plaque on the teeth, tartar, its color, consistency; carry out therapeutic manipulations to eliminate complications associated with the treatment of caries and its complications; remove dental deposits: plaque, supra- and subgingival tartar; polish teeth after tartar removal</p>	<p>mechanical and drug treatment and filling of carious cavities; remotherapy techniques; methods of mechanical and drug treatment of root canals; root canal filling techniques; methods of treatment of periodontal diseases; methods of treatment of diseases of the oral mucosa; methods of treatment of non-carious lesions of hard dental tissues; methods of injection and non-injection local anesthesia; methods of treatment of pulpitis, apical periodontitis and caries; methods of professional oral hygiene; fissure sealing techniques.</p>
--	--	--	---	--	---	--



			<p>representatives) behavior aimed at maintaining and improving the level of somatic and dental health</p> <p>Develop and implement healthy lifestyle programs, including programs to reduce alcohol and tobacco consumption, prevent and combat the non-medical use of narcotic drugs and psychotropic substances</p> <p>Develop a plan of preventive measures and implement methods of group and individual prevention of major dental diseases</p> <p>Conduct preventive medical dental examinations of the population</p> <p>Assign preventive measures to patients, taking into account risk factors for the prevention and early detection of diseases, including cancer</p> <p>Conduct the selection and prescription of drugs and non-drug methods for the prevention of dental diseases in children and adults</p> <p>Carry out dispensary supervision of children and adults with dental diseases</p> <p>IPC 2.3 Has practical experience:</p> <p>Promotion of a healthy lifestyle and prevention of dental diseases</p> <p>Carrying out health education among children and adults with dental diseases</p> <p>Formation in children and adults (their legal representatives) of behavior aimed at maintaining and improving the level of somatic health</p>			
--	--	--	---	--	--	--

			<p>Formation of healthy lifestyle programs, including programs to reduce alcohol and tobacco consumption, prevent and combat the non-medical use of narcotic drugs and psychotropic substances</p> <p>Development of a plan of preventive measures and the implementation of methods for group and individual prevention of dental diseases</p> <p>Carrying out preventive medical dental examinations of the population, taking into account age</p> <p>Prescribing preventive measures for children and adults with dental diseases, taking into account risk factors, oncological and hygienic prevention in accordance with the procedures for providing medical care, clinical recommendations, taking into account the standards of medical care</p> <p>Selection and prescription of drugs and non-drug methods for the prevention of dental diseases in children and adults</p> <p>Conducting a dispensary examination of children and adults with dental diseases</p> <p>Monitoring compliance with dental preventive measures</p>			
3.	PC-6	<p>Able to send a patient to laboratory, instrumental examination, to a consultation with specialist doctors if there are medical indications in accordance with the current procedures for the provision of</p>	<p>IPC 6.1 Knows: The methodology for collecting complaints and anamnesis from patients (their legal representatives). Methods of physical examination of patients (examination, palpation, percussion, auscultation).</p>	<p>pathological anatomy, clinic, differential diagnosis, methods of treatment and prevention of caries; classificatio</p>	<p>conduct examination of patients in order to diagnose caries, pulpitis, periodontitis, non-carious lesions of the teeth,</p>	<p>methods of treatment of periodontal diseases; methods of treatment of diseases of the oral mucosa; methods of treatment of non-carious</p>

		<p>medical care, clinical recommendations (treatment protocols) on providing medical care taking into account the standards of medical care, and also refer the patient for providing specialized medical care in an inpatient setting or in a day hospital if there are medical indications in accordance with the current procedures for the medical care delivery, clinical recommendations (treatment protocols) on the medical care delivery taking into account the standards of medical care</p>	<p>The procedure for providing medical care to the adult population with dental diseases The procedure for providing medical care to children with dental diseases Clinical guidelines on the provision of medical care to patients with dental diseases Standards of Care IPK 6.2. Able to: interpret the results of examination, laboratory, instrumental, pathological and other studies, incl. diagnostic studies using modern technical means and digital technologies, in order to recognize the state or establish the presence or absence of a dental disease, symptoms, syndromes of dental diseases, the establishment of nosological forms in accordance with the International Statistical Classification of Diseases and Related Health Problems, and other regulatory documents of the Ministry of Health of the Russian Federation (Procedure for the provision of medical care, Standard of medical care, Clinical recommendations on the provision of medical care, etc.) Develop a plan for the treatment of children and adults with dental diseases in accordance with the procedures for the provision of medical care, clinical guidelines, taking into account the standards of medical care. IPC 6.3 Has practical experience: interpretation of the results of examination,</p>	<p>n, etiology, pathogenesis, pathological anatomy of pulpitis; clinic, differential diagnostics, methods of treatment of inflammation of the pulp; classification, etiology, pathogenesis, pathological anatomy of periodontitis; classification, etiology, pathogenesis, pathological anatomy of dental lesions of non-carious origin. Clinic, differential diagnosis, methods of prevention and treatment of lesions of hard tissues of the tooth of non-carious origin; clinic, differential diagnostics, methods of treatment of periodontal inflammation; classification, etiology, pathogenesis, pathological anatomy of diseases of the oral mucosa.</p>	<p>periodontal diseases and oral mucosa, take a smear for cytological, bacterioscopic, bacteriological examination of the contents of the pocket; perform palpation of regional lymph nodes of the facial skeleton, soft tissues of the face; palpation of the oral mucosa; determine the morphological elements of the lesion; probe deep ulcers, fistulas; take material for cytological examination (scrapings, prints); take material for direct microscopy for fungi, fusospirochetes; to carry out therapeutic measures in case of damage to the oral mucosa with arsenic salts; local treatment of lesions of the mucous membrane - removal of plaque, necrotic tissues, washing,</p>	<p>lesions of hard dental tissues; methods of treatment of pulpitis, apical periodontitis and caries</p>
--	--	---	--	--	--	--

			laboratory, instrumental, pathoanatomical and other studies, incl. diagnostic studies using modern technical means and digital technologies, in order to recognize the state or establish the presence or absence of a dental disease, symptoms, syndromes of dental diseases, the establishment of nosological forms in accordance with the International Statistical Classification of Diseases and Related Health Problems, and other regulatory documents of the Ministry of Health of the Russian Federation (Procedure for the provision of medical care, Standard of medical care, Clinical recommendations on the provision of medical care, etc.) Development of a treatment plan for children and adults with dental diseases, taking into account the diagnosis, age and clinical picture in accordance with the current procedures for the provision of medical care, clinical recommendations, taking into account the standards of medical care	Clinic, differential diagnosis, methods of prevention and treatment of diseases of the oral mucosa	irrigation, applications; inject drugs under the elements of the lesion; eliminate local traumatic factors determine the index of oral hygiene according to Fedorov - Volodkina, according to Green-Vermillion; describe radiographs; determine the degree of tooth mobility (I, II, III);	
4.	PC-7	Able to: make a differential diagnosis with other diseases/conditions including emergencies, establish a diagnosis taking into account the current international statistical classification of diseases and related health problems (ICD)	IPC 7.1 Knows: Methods of drug and non-drug treatment, medical indications for the use of medical devices for dental diseases Groups of drugs used to provide medical care in the treatment of dental diseases; the mechanism of their action, medical indications and contraindications to the	clinic, differential diagnostics, methods of treatment of inflammation of the pulp; periodontal, periodontal and diseases of the oral mucosa, classification, etiology,	choose and carry out a rational method of treating caries, pulpitis, periodontitis, periodontal diseases, oral mucosa, depending on the clinical manifestatio	methods of treatment of non-carious lesions of hard dental tissues; methods of preparation, mechanical and drug treatment and filling of carious cavities; methods of treatment of pulpitis, apical

			<p>appointment; compatibility, possible complications, side effects, adverse reactions, including serious and unexpected</p> <p>Principles, techniques and methods of anesthesia, selection of the type of local anesthesia in the treatment of dental diseases</p> <p>Ways to prevent or eliminate complications, side effects, adverse reactions, including serious and unforeseen, that occurred during the examination or treatment of patients with diseases of the teeth, pulp, periodontium, periodontium, oral mucosa and lips</p> <p>Materials science, technologies, equipment and medical products used in dentistry</p> <p>Anatomy of the head, maxillofacial region, features of blood supply and innervation; the structure of the teeth; histology and embryology of the oral cavity and teeth, the main violations of embryogenesis</p> <p>IPK 7.2. Able to:</p> <p>Develop a plan for the treatment of children and adults with dental diseases in accordance with the procedures for the provision of medical care, clinical guidelines, taking into account the standards of care</p> <p>Select and prescribe medicines, medical devices (including dental materials), dietary nutrition, medical and recreational regimen for the treatment of children and adults</p>	<p>pathogenesis , pathological anatomy. Methods of treatment, indications, contraindications to methods of treatment.</p>	<p>ns and the state of the body as a whole; apply paste for pulp devitalization; open the cavities of all anatomical groups of teeth, prepare the crowns of intact teeth; remove the pulp after devitalization from the root canal; to carry out instrumental, drug treatment of the root canal, its drying, determining the degree of its patency; seal root canals with pastes and sealants without using and using pins; remove fragments of instruments from the root canal; carry out the removal of supra- and subgingival dental deposits, applications on the oral mucosa, blockade under the elements of the lesion take a smear for cytological, bacterioscopic,</p>	<p>periodontitis and caries, methods of professional hygiene, removal of dental deposits, methods of treatment of diseases of the oral mucosa</p>
--	--	--	--	---	--	---

			<p>with dental diseases in accordance with the current procedures for the provision of medical care, clinical recommendations, taking into account the standards of medical care</p> <p>Determine medical indications and contraindications for local anesthesia techniques in the maxillofacial region</p> <p>Perform local anesthesia (application, infiltration, conduction) in children and adults with dental diseases</p> <p>Perform medical interventions, including therapeutic ones, in children and adults with dental diseases on an outpatient basis (excluding repeated endodontic treatment):</p> <ul style="list-style-type: none"> <li>- individual training in oral and dental hygiene, selection of means and items for oral hygiene</li> <li>- controlled brushing of teeth</li> <li>- professional oral and dental hygiene</li> <li>- injection of drugs in the maxillofacial area</li> <li>- local application of remineralizing preparations in the area of the tooth</li> <li>- deep fluoridation of tooth enamel</li> <li>- sealing the fissure of the tooth with a sealant</li> <li>- professional teeth whitening</li> <li>- grinding of hard tissues of the tooth</li> <li>- restoration of a tooth with a filling using dental cements, chemical curing materials, photopolymers</li> <li>- restoration of teeth with a violation of the contact point</li> </ul>		<p>bacteriological examination of the contents of the pocket; perform palpation of regional lymph nodes of the facial skeleton, soft tissues of the face; palpation of the oral mucosa; determine the morphological elements of the lesion; probe deep ulcers, fistulas; take material for cytological examination (scrapings, prints); take material for direct microscopy for fungi, fusospirochetes; to carry out therapeutic measures in case of damage to the oral mucosa with arsenic salts; local treatment of lesions of the mucous membrane - removal of plaque, necrotic tissues, washing, irrigation, applications; inject drugs under the elements of the lesion; eliminate local</p>	
--	--	--	---	--	---	--

			<ul style="list-style-type: none"> <li>- tooth restoration with filling material using anchor pins</li> <li>- application of devitalizing paste</li> <li>- pulpotomy (amputation of the coronal pulp)</li> <li>- pulp extirpation</li> <li>- instrumental and medical treatment of a well-passable root canal</li> <li>- temporary filling of the root canal with a drug</li> <li>- filling the root canal of the tooth with paste, gutta-percha pins</li> <li>- removal of supragingival and subgingival plaque in the tooth area (manual method)</li> <li>- ultrasonic removal of supragingival and subgingival dental deposits in the tooth area</li> <li>- closed curettage for periodontal diseases in the tooth area</li> <li>- application of a medical dressing for periodontal diseases in the area of one jaw</li> <li>- prescription of drug therapy for diseases of the oral cavity and teeth</li> <li>- appointment of dietary therapy for diseases of the oral cavity and teeth</li> </ul> <p>Perform medical interventions, including surgical ones, in children and adults with dental diseases on an outpatient basis (excluding the extraction of impacted and dystopic teeth):</p> <ul style="list-style-type: none"> <li>- removal of a tooth</li> <li>- removal of a temporary tooth</li> <li>- permanent tooth extraction</li> <li>- opening and drainage of odontogenic abscess</li> </ul> <p>Carry out phased</p>	traumatic factors	
--	--	--	---	-------------------	--

			<p>sanitation of the oral cavity (excluding sanitation of the oral cavity in children under anesthesia)</p> <p>Perform medical interventions, including orthopedic, in adults with dental diseases on an outpatient basis (excluding prosthetics on dental implants, technologies for automated production of orthopedic structures, complete removable lamellar and clasp dentures):</p> <ul style="list-style-type: none"> <li>- obtaining anatomical and functional impressions</li> <li>- restoration of a tooth with a crown</li> <li>- restoration of the integrity of the dentition with fixed bridges</li> <li>- prosthetics with partial removable lamellar dentures</li> <li>- correction of a removable orthopedic structure</li> <li>- removal of a fixed orthopedic structure</li> </ul> <p>Interpret the results of X-ray studies of the maxillofacial region</p> <p>Conduct counseling for children and adults with diseases of the mucous membranes of the mouth and lips, determine indications for referral for a consultation with specialist doctors</p> <p>Prevent or eliminate donkey</p>			
5.	PC-12	Able to prepare the necessary medical documentation for the implementation of medical and social expertise in federal state institutions of medical and social expertise and refer a patient with a persistent impairment of body functions caused by diseases, the	IPC 12.1 Knows: Fundamentals of evidence-based medicine; the main sources of medical information based on evidence-based medicine; methods and forms of public presentation of medical information; basic principles of medical	Scientific literature, educational and methodical publications, scientific journals and collections of works. Methods of medical	Analyze scientific literature and statistical reviews, conduct statistical analysis, present the resulting statistics,	Methods of medical statistics, determination of the Student's criterion, non-parametric methods, comparison of independent and dependent groups,



		consequences of injuries or defects to medical and social expertise	<p>research</p> <p>IPC 12.2 Can:</p> <p>Search for medical information based on evidence-based medicine;</p> <p>interpret the data of scientific publications;</p> <p>critically evaluate modern methods of diagnosis, prevention and treatment of diseases from the perspective of evidence-based medicine;</p> <p>justify your choice of methods for diagnosing, preventing and treating dental diseases;</p> <p>prepare a presentation for the public presentation of medical information, the results of scientific research</p> <p>IPC 12.3 Has practical experience:</p> <p>Development of algorithms for examination and treatment of adults and children with dental diseases in accordance with the principles of evidence-based medicine;</p> <p>search and interpretation of medical information based on evidence-based medicine;</p> <p>public presentation of medical information based on evidence-based medicine;</p> <p>partial participation in scientific research</p>	statistics.	and interpret them.	methods for describing qualitative features.
--	--	---	---	-------------	---------------------	--

4. Sections of discipline and competence that are formed during their study:

p / no.	Competency Code	Name of the discipline section	The content of the section in didactic units
1.	UC-1, PC-2,	Prevention of caries; non-carious lesions of hard tissues of teeth, periodontal diseases and oral mucosa.	Etiology, pathogenesis, pathological anatomy, clinic, diagnostics, differential diagnostics, methods of caries treatment and prevention; pulpitis, periodontitis, non-carious lesions of hard dental tissues, periodontal diseases and oral mucosa
2.	PC-6,	Diagnosis of caries; pulpitis,	Etiology, pathogenesis, pathological anatomy,

PC-7, PC-12	periodontitis, non-carious lesions of hard dental tissues, periodontal diseases and oral mucosa.	clinic, diagnostics, differential diagnostics, methods of caries treatment and prevention; pulpitis, periodontitis, non-carious lesions of hard dental tissues, periodontal diseases and oral mucosa
----------------	--	--

### 5. Volume of discipline and types of educational work

The distribution of the labor intensity of the discipline and types of educational work by semesters:

Type of study work	Labor intensity		Labor intensity by semesters (ACH)		
	volume in credit units (CU)	volume in academic hours (AH)	6	7	10
classroom work, including	3	108	<b>108</b>		
Lectures (L)		<i>fourteen</i>	fourteen		
Laboratory workshops (LP)					
Practical exercises (PZ)					
Clinical Practice (CPP)		52	52		
Seminars (C)					
Student Independent Work (SIW)		<b>42</b>	<b>42</b>		
Intermediate certification					
test/exam ( <i>specify type</i> )	<i>offset</i>				
<b>TOTAL</b>	<b>3</b>	<b>108</b>	<b>108</b>		

### 6. The content of the discipline

#### 6.1. Sections of the discipline and types of classes:

p / no.	semester number	Name of the discipline section	Types of educational work (in ACH)							Evaluation tools
			L	LP	PE	CP	S	IWS	Total	
1.	6	Non-carious lesions of hard tissues of the teeth that occur after eruption: hyperesthesia of the teeth, necrosis of hard tissues.	2			9			7	Current testing. Testing practical skills. Writing a fragment of the medical history.
2.	6	Non-carious lesions of hard tissues of the teeth that occur after eruption: enamel	2			9			7	Current testing. Oral individual survey. Writing a fragment of the case history.

		erosion, wedge-shaped defects.								
3.	6	Non-carious lesions of hard tissues of teeth that occur after eruption: abrasion of hard tissues.	2			9			7	Current testing. Oral individual survey. Abstract. Solution of situational problems.
4.	6	Non-carious lesions of the hard tissues of the teeth that occur before eruption: hypoplasia .	2			9			7	Current testing. Oral individual survey. Abstract.
5.	6	Non-carious lesions of the hard tissues of the teeth that occur before eruption: fluorosis.	3			8			7	Current testing. Oral individual survey. Written test work. Writing a fragment of the medical history.
6.	6	Non-carious diseases genetically determined (recessively or dominantly linked to the gene)	3			8			7	
	6	<i>offset</i>								
		TOTAL	14			52			42	

L- lectures

LP - laboratory workshop

PE - practical exercises

CP - clinical practice

S - seminars

IWS - independent work of the student

#### 6.2. Thematic plan of lectures using DOT and EOS:

№	Lecture Topics	Semester	Semester	Semester
		6	7	10
1.	Non-carious lesions of hard tissues of the teeth that occur after eruption: hyperesthesia of the teeth, necrosis of hard tissues.	2		
2.	Non-carious lesions of hard tissues of the teeth that occur after eruption: enamel erosion, wedge-shaped	2		

	defects.			
3.	Non-cariou lesions of hard tissues of teeth that occur after eruption: abrasion of hard tissues.	2		
4.	Non-cariou lesions of the hard tissues of the teeth that occur before eruption: hypoplasia.	2		
5.	Non-cariou lesions of the hard tissues of the teeth that occur before eruption: fluorosis.	3		
6.	Non-cariou diseases genetically determined (recessively or dominantly linked to the gene)	3		
total		14		

**6.3. Distribution of laboratory workshops by semesters: not provided by the Federal State Educational Standard.**

**6.4 Distribution of practical training topics by semester: not provided by the Federal State Educational Standard.**

**6.5. Distribution of topics of clinical practical classes by semesters with the use of DOT and EOS:**

№	Name of topics of clinical practical classes	Volume in AH		
		Semester 6	Semester 7	Semester 10
1.	Non-cariou lesions of hard tissues of the teeth that occur after eruption: hyperesthesia of the teeth, necrosis of hard tissues.	9		
2.	Non-cariou lesions of hard tissues of the teeth that occur after eruption: enamel erosion, wedge-shaped defects.	9		
3.	Non-cariou lesions of hard tissues of teeth that occur after eruption: abrasion of hard tissues.	9		
4.	Non-cariou lesions of the hard tissues of the teeth that occur before eruption: hypoplasia.	9		
5.	Non-cariou lesions of the hard tissues of the teeth that occur before eruption: fluorosis.	eight		
6.	Non-cariou diseases genetically determined (recessively or dominantly linked to the gene)	eight		
	offset			
	Total (total - 52 Ah)	52		

**6.6 Distribution of seminar topics by semester: not provided by the Federal State Educational Standard.**

**6.7 Distribution of student independent work (SIW) by types and semesters with the use of DOT and EOS:**

№	Name of the type of CPC*	Volume in AH		
		Semester 6	Semester 7	Semester 10
	<i>Preparation for clinical practical classes, homework, preparation for current control</i>	7		
	<i>Working with lecture material</i>	7		
	<i>Working with electronic resources on the distance education portal "PIMU"</i>	7		
	<i>The study of material submitted for independent</i>	7		

	<i>study (separate topics, paragraphs), work with literary sources</i>			
	<i>Preparing for testing</i>	7		
	<i>Preparation of case histories</i>	7		
	<i>Total</i>	<b>42</b>		

## 7. Evaluation funds fund for current control and intermediate certification

7.1. Forms of current control and intermediate certification\*, types of evaluation tools:

№	semes ter num ber	Forms of control	Name of the discipline section	Evaluation tools		
				Kinds	Number of questions in the task	Number of independent options
1	2	3	4	5	6	7
1	ten	offset	Non-carious lesions of hard dental tissues	Tests, clinical situational tasks	3	fifty

*\* forms of current control: control of the student's independent work, control of the development of the topic; forms of intermediate certification: test, exam*

**The current control** over the discipline is carried out using control questions, situational tasks, as well as test tasks.

Example:

1. Cement caries. Clinic, diagnostics, differential diagnostics, modern methods of treatment, choice of treatment method.
2. Mistakes and complications in the diagnosis and treatment of dental caries. Methods for their prevention and elimination.
3. Principles and stages of preparation of carious cavities.
4. Features of preparation and filling of carious cavities of 1, 2, 3, 4, 5, 6 Black classes.
5. Pulp of the tooth. Histological structure, innervation, blood supply, main functions.

### **Situational task in therapeutic dentistry No. 1**

Patient K., 22 years old, came to the dentist with complaints of white spots of various shapes on the vestibular surface of the central incisors and cusps of the first molars on the upper and lower jaws. The patient does not complain about the presence of any unpleasant sensations, the enamel in the area of the spots is smooth and shiny.

From the anamnesis: in the 1st year of life, patient K. repeatedly suffered from severe pneumonia. Spots on the teeth appeared along with the eruption of these teeth. During the life of the spots did not change their size, shape and color.

1. Make a preliminary diagnosis and conduct a differential diagnosis.
2. Make a survey plan.
3. Offer a comprehensive treatment and prevention plan.

Test tasks:

1. CONGENITAL NON-CARIOUS LESIONS
  - a) endemic fluorosis
  - b) enamel erosion
  - c) wedge-shaped defect
  - d) enamel hypoplasia
  - e) marble disease

2. WHICH OF THE TEETH ARE INCLUDED IN THE TRIAD OF CONGENITAL SYPHILIS:

- 1) Hutchinson's teeth
- 2) Fournier teeth
- 3) Pfluger's teeth
- 4) Turner's teeth

3. EROSION OF HARD TISSUES OF TOOTH

- 1) smooth, shiny, rounded, dense on probing
- 2) matte, round shape, dense when probing
- 3) rough, rounded, dense on probing
- 4) smooth, shiny, wedge-shaped, dense on probing

4. CORRELATE THE DEGREES OF INFLUENCE WITH THE FORMS OF INFLUENCE IN ENDEMIC FLUOROSIS

- 1) very light a) chalky-mottled
- 2) light b) spotty
- 3) moderate c) normal enamel color
- 4) moderate d) dashed
- 5) severe e) erosive

1-in

2-d

3-b

4-a

5-d

5. ENDOGENOUS DRUG PREVENTION OF ENDEMIC FLUOROSIS:

- 1) calcium gluconate
- 2) vitamins C and D
- 3) sodium fluoride
- 4) fluoridation of water and milk
- 5) natural feeding.

6) MANIFESTATIONS OF ENAMEL UNDEVELOPMENT IN SYSTEMIC HYPOPLASIA

- 7) wavy enamel
- 8) mottled enamel
- 9) dotted enamel
- 10) striated enamel
- 11) dashed enamel

6. WHAT TYPE OF NON-CARIOUS LESION SHOWN IN THE PICTURE



- 1) hypoplasia
- 2) fluorosis
- 3) erosion
- 4) wedge-shaped defect
- 5) increased abrasion

7. WHAT TYPE OF NON-CARIOUS LESION SHOWN IN THE PICTURE



- 1) hypoplasia
- 2) fluorosis
- 3) erosion
- 4) wedge-shaped defect
- 5) increased abrasion

**Boundary control** in the discipline is carried out by conducting a test using tasks and test tasks.  
**Intermediate control** in the form of an exam (after the 4th year) in the discipline is carried out in the form of an interview on tickets (using clinical situational tasks, tests).

Example:

#### EXAMINATION TICKET No. 1

1. Fluorine, its role in the prevention of dental caries. Mechanism of anticariogenic action of fluorine. Mechanism of toxic action of fluorine.
2. Complications in the treatment of pulpitis, their prevention and elimination.
3. erosion of the enamel. Classification. Methods of treatment and prevention.

**The final control** is carried out at the end of the training, students pass the final state certification in the form of state final exams after the 5th year in 3 stages: certification of practical skills, test tasks, interviews on clinical situational tasks.

### **Situational task in therapeutic dentistry No. 2**

Patient A., 45 years old, complains of pain when eating in the area of teeth 3.4, 3.5, 4.4, 4.5, pain when brushing teeth.

Objectively: in the cervical region of teeth 3.4, 3.5, 4.4, 4.5 there is a defect of hard tissues in the form of a wedge, probing is sharply painful.

1. Make a preliminary diagnosis.
2. Perform differential diagnosis.
3. Name the causes of this pathology.
4. What filling materials would you prefer?

7.2. Examples of evaluation tools:

#### *1. EXAMINATION TICKET (example)*

1. Contact point. Kinds. Indications and recovery technique. Types of matrices and matrix systems, application technique.
2. Complications at the stage of passage of the root canal in the treatment of pulpitis, their prevention and elimination.
3. Fluorine, its role in the prevention of dental caries. Mechanisms of anticariogenic action of fluorides.

#### *2. Situational task (example)*

Patient K., 22 years old, came to the dentist with a complaint of white spots of various shapes on the vestibular surface of teeth 12,11,21,22,31,32,41,42. The spots are not accompanied by any discomfort.

From the anamnesis: in the 1st year of life, patient K. suffered from severe pneumonia. The spots on the teeth appeared along with the eruption of the named teeth; during the life, the size, shape and color of the spots did not change.

1. Make a preliminary diagnosis. Perform differential diagnosis.
2. Plan your survey.
3. Make a comprehensive plan for the treatment and prevention of this disease.

6.2. Evaluation tools recommended for inclusion in the fund of evaluation tools for the final state certification.

Clinical situational tasks illustrated with photographs and radiographs with a list of questions on the topic. Test tasks. Conducting an exam in manual skills using modern dental materials and tools.

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

8.1. List of basic literature\*:

No.	Name according to bibliographic requirements	Number of copies	
		At the department	In library



one	Therapeutic dentistry. Part 2: Periodontal disease: a textbook for universities 2 / Barer G. M.; Publisher: GEOTAR-Media, 2008	1	33
2	Therapeutic dentistry. Guide to practical exercises: study guide / Maksimovsky Yu. M.; Publisher: GEOTAR-Media, 2011	1	102
3	Therapeutic dentistry: a textbook for students. honey. universities / Borovsky E.V. Publisher: Medical News Agency, 2011	1	54
4	Dentistry of the XXI century : topical aspects : compilation scientific works With international participation , dedicated to the 20th anniversary departments therapeutic and orthopedic dentistry / Lukinykh L . M . ; Ed . Nizhny State Medical Academy , 2012	1	6
5	Recovery teeth light-cured composite materials : practical management for doctors dentists - therapists Author : Makeeva I . M . ; Publisher : MEDpress - inform , 2013	1	30

## 7.2. List of additional literature:

No.	Name according to bibliographic requirements	Number of copies	
		At the department	In library
1	Dryness in cavities mouth . Classification . differential diagnostics . Treatment : educational allowance / Assumption Oh . A . ; Ed . : NGMA , 2007	1	37
2	Modern filling materials and medicinal drugs in therapeutic dentistry : practical management / Dmitrieva L . A . ; Ed . : Medical informational agency , 2011	1	96
3	Recovery teeth light-cured composite materials : practical management for doctors dentists - therapists / Makeeva I . M . ; Publisher : MEDpress - inform , 2011	1	1
four	Therapeutic dentistry: a textbook for students. honey. Universities / Borovsky E.V.; Publisher: Medical Information Agency, 2011	1	54
5	Scientific justification differentiation preventive programs rendering therapeutic stomatol ...: author's abstract . dis . ... cand . honey . Sciences : 14.01.14 / Emelina G . V . , 2012	1	1

6	Dentistry. Recording and maintaining a medical history: a guide / Afanasiev V.V.; Publisher: GEOTAR-Media, 2013	1	50
7	Restoration of teeth with light-cured composite materials: a practical guide for the doctor / Makeeva I.M.; Publisher: MEDpress-inform, 2013	1	30
8	Treatment of periodontal diseases: textbook / Zhulev E. N.; Publisher: NizhGMA, 2016	1	1
9	Scientific justification differentiation preventive programs rendering therapeutic stomatol ...: author's abstract . dis . ... cand . honey . Sciences : 14.01.14 / Emelina G . V . , 2012	1	1
10	methodical development to production practice on therapeutic dentistry / Uspenskaya Oh . A . ; Ed . Nizhny State Medical Academy , 2016	1	5

## 8.3. List of guidelines for classroom and independent work of students:

№	Name according to bibliographic requirements	Number of copies	
		At the department	In library
1	Diseases teeth : caries , non-carious lesions , pulpitis , periodontitis : Educational allowance for students dental faculties / under total _ ed . I . M Makeev . - Rostov - on - Don : Phoenix , 2007. - 141 p . 616.31 B -792 Ab / scientific *	1	1
2	Actual Aspects management health Population : dispensary observation pregnant women women on the dental therapeutic reception / Tolmacheva C . M . ; Ed . NGMA , 2007	1	1
3	Algorithm aesthetic restoration front and lateral teeth : monograph / L . _ A . Lobovkina A . _ _ M . Romanov - M . : MEDpress - inform , 2008 R / W	1	1
4	Grade risk and individual forecasting results treatment complicated caries : author's abstract . dis ... cand . honey . Sciences : 14.01.14 / N . A . Dubrov . - Yekaterinburg , 2010 B / C	1	1
5	susceptibility caries teeth pregnant women women and way improvement organizations therapeutic and prophylactic events ( according to materials surveys pregnant women Mr . _ Derbent ) : abstract . dis ... cand . honey . Sciences : 14.01.14 / M . B . Bakhmudov . - Stavropol , 2010 B / C	1	1
6	Clinical justification prevention caries prematurely erupted premolars : autoref . dis ... cand . honey . Sciences : 14.01.14 / E . B . Brusnitsyn . - Yekaterinburg , 2010 B / C	1	1

7	Pulpitis. Etiology. Pathogenesis. Diagnostics. Treatment / N.N. Bondarenko, L.M. Lukinykh. - Nizhny Novgorod: Publishing house of NizhGMA, 2014.- 190p.	1	1
8	.Reading radiographs of teeth and jaws at various age periods in normal and pathological conditions / L.M. Lukinykh, O.A. Assumption. - N.Novgorod: 5th edition, NizhGMA Publishing House, 2015.-44p.	1	1
9	Scheme surveys and writing medical cards dental patient ( methodical instructions ) / Kondyurova E . V ., Uspenskaya Oh . A . // Saransk : Publishing House _ Mordovs . un - ta , 2015. - 72 p .	1	1
ten	Apical periodontitis / Lukinykh L.M., Egorova L.I., Tiunova N.V., Zhdanova M.L. // Tutorial. Publishing house NGMA. Nizhny Novgorod, 2016. - 174p.	1	1

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

№	Teaching aid, monograph	The authors)	Edition (where, when)
1.	Catarrhal gingivitis. Etiology, clinic, treatment. (Guidelines for students)	L.M. Lukinykh	Nizhny Novgorod, NGMI.-1992.- 24s.
2.	Reading radiographs of teeth and jaws. (Guidelines for students)	L.M. Lukinykh	Nizhny Novgorod, NGMI.-1992. - 27s.
3.	Scheme of clinical examination of the patient and writing an academic medical history. (Guidelines for students)	L.M. Lukinykh	Nizhny Novgorod, NGMI.-1992. -28s.
4.	Periodontal disease (guidelines for students). Part 1	L.M. Lukinykh	Nizhny Novgorod, NGMA. - 1993. -43s.
5.	Periodontal disease (guidelines for students). Part 2	L.M. Lukinykh	Nizhny Novgorod, NGMA. - 1993. -46s.
6.	Diseases of the oral mucosa mouth. (Tutorial)	L.M. Lukinykh S.I. Gazhva L.N. Kazarina Yu.N. Livshits M.M. Poleshchuk L.V. Shestopalova L.I. Krasulova and others.	Nizhny Novgorod: Nizhegorod Publishing House. state medical academy, 1993.-211s.
7.	Guidelines for industrial practice for students of the Faculty of Dentistry on the prevention of dental diseases.	L.M. Lukinykh S.I. Gazhva	Nizhny Novgorod, NGMA.-1994. -16s.

8.	Guidelines for students of the Faculty of Dentistry on the production practice of pediatric dentistry.	L.M. Lukinykh L.N. Kazarina	Nizhny Novgorod, NGMA.-1994.-18s.
9.	Guidelines for students of the Faculty of Dentistry for practical work in therapeutic dentistry.	L.M. Lukinykh L.N. Kazarina	Nizhny Novgorod, NSMA.-1995.-31s.
10.	Organization of therapeutic dental care in the armed forces in peacetime and wartime.	L.M. Lukinykh	Nizhny Novgorod, NGMA. -1996.-24s.
11.	Dental caries.	L.M. Lukinykh S.I. Gazhva L.N. Kazarina	Nizhny Novgorod: Nizhegorod Publishing House. state medical academy, 1996.-128s.
12.	Guidelines for students of the Faculty of Dentistry to industrial practice in therapeutic dentistry and clinical examination	L.M. Lukinykh L.N. Kazarina	Nizhny Novgorod, NSMA.-1997.-34s.
13.	Treatment and prevention of dental caries. (Tutorial)	L.M. Lukinykh	Nizhny Novgorod: Nizhegorod Publishing House. state medical academy, 1998.-168 p.
14.	Guidelines for foreign students of the Faculty of Dentistry to work practice in therapeutic dentistry.	L.M. Lukinykh	Nizhny Novgorod: Nizhegorod Publishing House. state medical academy, 1998.-32 p.
15.	Guidelines for students of the 2nd year of the Faculty of Dentistry to the industrial practice "Nurse of a Dental Institution".	L.M. Lukinykh Yu.N. Livshits N.N. Shakerova S.R. Sorokin	Nizhny Novgorod: Nizhegorod Publishing House. state medical academy, 1998.-10 p.
16.	Dental caries (etiology, clinic, treatment, prevention).	L.M. Lukinykh	N. Novgorod: 2nd edition, Nizhegorod Publishing House. state medical academy, 1999. -185 p.
17.	Non-surgical treatment of periradicular jaw cyst. Monograph	L.M. Lukinykh G.D. Ovrutsky Yu.N. Livshits	Library of the practical doctor. -M.: Medicine.-1999.-118s.
18.	Apical periodontitis. (Tutorial)	L.M. Lukinykh Yu.N. Livshits	Nizhny Novgorod: Nizhegorod Publishing House. state Medical Academy, 1999.-92.S.
19.	Pulpitis (Clinic, diagnosis, treatment).	L.M. Lukinykh L. V. Shestopalova	Nizhny Novgorod: Nizhegorod

			Publishing House. state medical academy, 1999.-88s.
20.	Scheme of clinical examination of the patient and writing an academic medical history. (Guidelines for students of the Faculty of Dentistry)	L.M. Lukinykh I.I. Parshin	Nizhny Novgorod: Nizhegorod Publishing House. state medical academy, 1999.-44 p.
21.	Diseases of the oral mucosa.	L.M. Lukinykh L.N. Kazarina S.I. Gazhva L.V. Shestopalova Yu.N. Livshits	Nizhny Novgorod: Nizhegorod Publishing House. state medical academy, 2000.-p. 57-160.
22.	Dental caries (etiology, clinic, treatment, prevention).	L.M. Lukinykh	N. Novgorod: 3rd edition, Nizhegorod Publishing House. state medical academy, 2001. -185 p.
23.	Pulpitis (Clinic, diagnosis, treatment).	L.M. Lukinykh L.V. Shestopalova	N. Novgorod: 2nd edition, Nizhegorod Publishing House. state medical academy, 2002.-88s.
24.	Scheme of clinical examination of the patient and writing an academic medical history. (Guidelines for students)	L.M. Lukinykh I.I. Parshin	Nizhny Novgorod: 2nd edition, Nizhny Novgorod Publishing House. state medical academy, 2003. -44s.
25.	Physiotherapy in the practice of therapeutic dentistry.	L.M. Lukinykh O.A. Uspenskaya	Nizhny Novgorod, NGMA.-2003.-36p.
26.	Reading radiographs of teeth and jaws at various age periods in normal and pathological conditions.	L.M. Lukinykh O.A. Uspenskaya	Nizhny Novgorod, NGMA.-2003.-40p.
27.	Guidelines for work practice in therapeutic pediatric dentistry for students of the Faculty of Dentistry.	L.M. Lukinykh L.N. Kazarina S.Yu. Kosyuga I.N. Chuprunova MM. Ratsyuk	Nizhny Novgorod, NGMA.-2003.-38s.
28.	Prevention of dental caries and diseases periodontal. <i>Monograph</i>	L.M. Lukinykh	M.: Medical book, 2003.-196s.
29.	Dental caries. Etiology, clinic, treatment, prevention.	L.M. Lukinykh	N. Novgorod: 4th edition, Nizhegorod Publishing House. state medical academy, 2004.-186s.

30.	Guidelines for students of the 2nd year of the Faculty of Dentistry to the production practice "Assistant Nurse of a Dental Institution".	L.M. Lukinykh E.V. Kitaeva	Nizhny Novgorod, NGMA. - 2004. -26s.
31.	Guidelines for students of the 3rd year of the Faculty of Dentistry to work practice in therapeutic dentistry.	L.M. Lukinykh E.V. Kitaeva	Nizhny Novgorod, NGMA. - 2004. - 40 p.
32.	Diseases of the mucous membrane of the oral cavity and lips in children.	/ Ed. L.N. Kazarina	Nizhny Novgorod, NGMA. - 2004. - p. 264.
33.	Apical periodontitis. (Tutorial)	L.M. Lukinykh Yu.N. Livshits	N. Novgorod: 2nd edition, Nizhegorod Publishing House. state Medical Academy, 2004.-92.S.
34.	Pulpitis (Clinic, diagnosis, treatment). (Tutorial)	L.M. Lukinykh L.V. Shestopalova	N. Novgorod: 3rd edition, Nizhegorod Publishing House. state medical academy, 2004.-88C.
35.	Dentist and patient: rights, obligations, a responsibility. <i>Monograph</i>	N.N. Bondarenko	M.: Medical book, 2004. - 96 p.
36.	Diseases of the oral cavity.	/ Ed. L.M. Lukinykh	Nizhny Novgorod, Nizhny Novgorod Publishing House. state medical academy, 2004.-510s.
37.	Civil-legal bases of medical activity. Guidelines	N.N. Bondarenko	Nizhny Novgorod, Nizhny Novgorod Publishing House. state medical academy, 2005.-48 p.
38.	Scheme of clinical examination of the patient and writing an academic medical history. (Guidelines for students)	L.M. Lukinykh I.I. Parshin	Nizhny Novgorod: 3rd edition, Nizhny Novgorod Publishing House. state medical academy, 2005. -44s.
39.	Physiotherapy in the practice of therapeutic dentistry.	L.M. Lukinykh O.A. Uspenskaya	Nizhny Novgorod: 2nd edition, NGMA. - 2005.-36s.
40.	Reading radiographs of teeth and jaws at various age periods in normal and pathological conditions.	L.M. Lukinykh O.A. Uspenskaya	Nizhny Novgorod: 2nd edition, NGMA. - 2005.-40s.
41.	Periodontal disease (clinic, diagnosis, treatment and prevention).	L.M. Lukinykh E.N. Zhulev I.N. Chuprunova	Nizhny Novgorod, Nizhny Novgorod Publishing House. state medical academy, 2005.-322p.

42.	Legal literacy of dentists. <i>Monograph</i>	A.V. Demina G.A. Pashinyan L.M. Lukinykh	Moscow, Medical Book Publishing House, 2005.-160p.
43.	Forensic stomatological identification of a person (state and development prospects). <i>Monograph</i>	G.A. Pashinyan L.M. Lukinykh G.N. Karpov	Moscow, Medical Book Publishing House, 2005.-157p.
44.	Dental diseases during pregnancy and their prevention. <i>Monograph</i>	CM. Tolmacheva L.M. Lukinykh	Moscow, Medical Book Publishing House, 2005.-150p.
45.	Dental complications that developed after radiation and chemoradiotherapy (Clinical course, treatment and prevention of candidiasis that developed against the background of mucositis). <i>Monograph</i>	L.I. Egorova L.M. Lukinykh	Moscow, Medical Book Publishing House, 2006.-155p.
46.	Physiotherapy in the practice of therapeutic dentistry.	L.M. Lukinykh O.A. Uspenskaya	Nizhny Novgorod: 3rd edition, NGMA. - 2006.-36s.
47.	Reading radiographs of teeth and jaws at various age periods in normal and pathological conditions.	L.M. Lukinykh O.A. Uspenskaya	Nizhny Novgorod: 2nd edition, NGMA.- 2006.-40s.
48.	Establishing the age and gender of a person by the degree of tooth wear, taking into account the presence of a number of pathological conditions and harmful working conditions. <i>Monograph</i>	G.A. Pashinyan L.M. Lukinykh A.A. Plishkin	Moscow, Medical Book Publishing House, 2007.-104 p.
49.	Dryness in the mouth. Classification, differential diagnosis, treatment	O.A. Uspenskaya A.A. Plishkin N.V. Kazarina E.A. Shevchenko	Nizhny Novgorod: Publishing House of NizhGMA, 2007.-31 p.
fifty.	Urogenital candidiasis and bacterial vaginosis.	E.A. Shevchenko A.A. Artifeksova O.A. Uspenskaya	Nizhny Novgorod: NizhGMA Publishing House, 2007.-27 p.
51.	Dentistry for pregnant women.	O.A. Uspenskaya E.A. Shevchenko N.V. Kazarina	Nizhny Novgorod: Publishing House of NizhGMA, 2008.- 24 p.
52.	Clinical and expert assessment of errors and complications in the practice of a pediatric dentist.	S.I. Gazhva E.S. Tuchik HER. Abramova N.N. Bondarenko	Nizhny Novgorod: Publishing House of NizhGMA, 2008.-300 p.
53.	Guide to Forensic Dentistry.	Ed. G.A. Pashinyan	M: LLC Medical Information Agency, 2009. -528 p.

54.	Scheme of clinical examination of the patient and writing a medical record of a dental patient.	L.M. Lukinykh	Nizhny Novgorod, Nizhny Novgorod Publishing House. state medical academy, 2009. - 72p.
55.	Dentist and patient: legal reality.	N.N. Bondarenko	Moscow, Publishing house Medical book, Publishing house "Dentistry", 2009.-124 p.
56.	Guidelines for the production practice in therapeutic dentistry "Assistant to the dentist therapist".	L.M. Lukinykh CM. Tolmacheva L.I. Egorova E.V. Kitaeva	Nizhny Novgorod: Publishing house of NizhGMA, 2010.-44 p.
57.	Apical periodontitis. Tutorial	L.M. Lukinykh L.I. Egorova	Nizhny Novgorod: Nizhny Novgorod Publishing House. state medical academy, 2010.-120 p.
58.	Methodical Instructions for the clinical practice in therapeutic stomatology for the 3-d year students of the stomatological faculty "THE ASSISTANT OF STOMATOLOGICAL THERAPEUTIST".	L.M. Lukinykh L.I. Egorova CM. Tolmacheva	Nizhny Novgorod: NizhGMA Publishing House, 2010.-35 p.
59.	Guidelines for conducting work practice "Assistant Nurse of the Dental Department."	L.N. Kazarina L.V. Vdovina L.M. Lukinykh E.V. Kitaeva	Nizhny Novgorod: Publishing house of NizhGMA, 2010.-40 p.
60.	Guidelines for the production practice in therapeutic dentistry "Assistant to the dentist therapist".	L.M. Lukinykh CM. Tolmacheva L.I. Egorova E.V. Kitaeva	Nizhny Novgorod: Publishing House of Nizhny State Medical Academy, 2011.-44s.
61.	Reading radiographs of teeth and jaws at various age periods in normal and pathological conditions.	L.M. Lukinykh O.A. Uspenskaya	Nizhny Novgorod: 3rd edition, NGMA.- 2011.-44p.
62.	Scheme of clinical examination of the patient and writing a medical record of a dental patient.	L.M. Lukinykh	Nizhny Novgorod, Nizhny Novgorod Publishing House. state medical academy, 2011. -72p.
63.	Physiotherapy in the practice of therapeutic dentistry.	L.M. Lukinykh O.A. Uspenskaya	Nizhny Novgorod: 5th edition, NGMA. - 2011.-36s.
64.	Physiotherapy in the practice of therapeutic dentistry.	L.M. Lukinykh OA. Uspenskaya E.A. Shevchenko	Nizhny Novgorod: 6th edition, NGMA. - 2012.-52s.
65.	Reading radiographs of teeth and jaws at various age periods in normal and pathological conditions.	L.M. Lukinykh O.A. Uspenskaya	Nizhny Novgorod: 3rd edition, NGMA.- 2012.-44p.



66.	Reading radiographs of teeth and jaws at various age periods in normal and pathological conditions.	L.M. Lukinykh O.A. Uspenskaya	Nizhny Novgorod: 3rd edition, NGMA.-2013.-44p.
67.	Urogenital infection and infertility (monograph)	Shevchenko E.A., Artifeksova A.A., Uspenskaya O.A.	Nizhny Novgorod: Publishing house of NizhGMA, 2012. - 160 pages.
68.	Reading radiographs of teeth and jaws at various age periods in normal and pathological conditions	Lukinykh L.M. Uspenskaya O.A.	Tutorial. 5th edition. Publishing house NGMA. Nizhny Novgorod, 2013. 44 p.
69	Test tasks in therapeutic dentistry	Lukinykh L.M., Tiunova N.V., Egorova L.I., Zhdanova M.L., Plishkina A.A., Zolotukhin V.A., Kruglova N.V., Spiridonova S.A.	Nizhny Novgorod: Publishing house of NizhGMA, 2013. - 272 pages.
70..	Optimization of complex treatment of inflammatory periodontal diseases: (monograph)	L.M. Lukinykh, N.V. Kruglova -	N. Novgorod: NizhGMA Publishing House, 2013 - 122 p.; ill.
71.	Lichen planus of the oral mucosa: etiology, pathogenesis, clinic, modern methods of treatment (monograph)	Lukinykh L.M., Tiunova N.V.	Nizhny Novgorod: Publishing house of NizhGMA, 2013. - 116 p.
72.	Reading radiographs of teeth and jaws at various age periods in normal and pathological conditions (textbook).	Lukinykh L.M. Uspenskaya O.A.	Tutorial. 6th edition). Publishing house NGMA. Nizhny Novgorod, 2014. 42 p.
73.	Physiotherapy in the practice of therapeutic dentistry (educational manual)	Lukinykh L.M. Uspenskaya O.A. Shevchenko E.A.	Teaching aid. 2nd edition. Nizhny Novgorod: NizhGMA Publishing House, 2014.-52 p.
74.	Irrigation of the root canal system (educational manual).	Lukinykh L.M., Tiunova N.V., Egorova L.I., Zhdanova M.L., Yartseva A.V.	Publishing house NGMA. Nizhny Novgorod, 2014. - 36 p.
75.	Pulpitis. Etiology. Pathogenesis. Diagnostics. Treatment (textbook).	N.N. Bondarenko, L.M. Lukinykh.	Nizhny Novgorod: NGMA Publishing House, 2014. - 190 pp. ill.
76.	Lichen planus (educational manual).	Lukinykh L.M., Tiunova N.V.	Publishing house NGMA. Nizhny Novgorod, 2014. 44 p.
77.	Erythema multiforme exudative (educational manual)	L.M. Lukinykh, O.A. Uspenskaya, E.A. Shevchenko.	Nizhny Novgorod: Publishing house of NizhGMA, 2015. - 44

			p., ill.
78.	Chronic recurrent aphthous stomatitis (textbook)	O.A. Uspenskaya, L.M. Lukinykh, E.A. Shevchenko, N.V. Tiunova.	Nizhny Novgorod: Publishing house of NizhGMA, 2015. - 72 p., ill.
79..	Obturation of the root canal system (training manual).	Lukinykh L.M., Tiunova N.V., Egorova L.I., Zhdanova M.L., Yartseva A.V.	Publishing house NGMA. Nizhny Novgorod, 2015. - 60 p.
80.	Precancerous diseases of the oral mucosa and the red border of the lips (textbook).	Lukinykh L.M., Zhdanova M.L., Tiunova N.V.	Publishing house NGMA. Nizhny Novgorod, 2015. - 88 p.
81.	Physiotherapy in the practice of therapeutic dentistry (educational manual)	O.A. Uspenskaya, L.M. Lukinykh, E.A. Shevchenko	Teaching aid. 3rd edition. Nizhny Novgorod: NizhGMA Publishing House, 2015.-52 p.
82.	Reading radiographs of teeth and jaws at different age periods in normal and pathological conditions (textbook)	O.A. Uspenskaya, L.M. Lukinykh	Tutorial. 7th edition. Publishing house NGMA. Nizhny Novgorod, 2015. - 44 pages.
83.	Scheme of examination and writing a medical record of a dental patient (guidelines).	Kondyurova E.V., Uspenskaya O.A.	Saransk: Publishing House Mordovs. un-ta, 2015. - 72 p.
84.	Treatment of periodontal diseases (textbook)	E.N. Zhulev, N.V. Kruglova, A.V. Kochubeinik	Nizhny Novgorod, 2016-162 c., illustrations ISBN 978-5-7032-1077-2.
85.	Halitosis. (Tutorial.)	O.A. Uspenskaya, N.V. Tiunova	N. Novgorod, publishing house of NizhGMA, 2016. - 72p. ill.
86.	Apical periodontitis (Tutorial).	Lukinykh L.M., Egorova L.I., Tiunova N.V., Zhdanova M.L.	Publishing house NGMA. Nizhny Novgorod, 2016. - 174p.
87.	The orofacial system: the art of clinical diagnosis. (Tutorial).	E.N. Zhulev, V.D. Troshin, O.A. Uspenskaya, N.V. Tiunova.	N. Novgorod, Publishing house of NizhGMA, 2016.- 88 pages

8.4. Electronic educational resources used in the process of teaching the discipline:

8.4.1. Internal Electronic Library System of the University (VEBS)\*

<i>Name of the electronic resource</i>	<i>Brief description (content)</i>	<i>Access conditions</i>	<i>Number of users</i>
Internal Electronic	Proceedings of PIMU	Access by individual	Not limited

Library System (VEBS) PIMU	staff (textbooks, manuals, collections of tasks, methodological manuals, laboratory work, monographs, etc.)	login and password from any computer and mobile device	
----------------------------	---	--	--

## 8.4.2. Electronic educational resources purchased by the university

No.	Name of the electronic resource	Brief description (content)	Access conditions	Number of users
1.	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 eLIBRARY "	Electronic medical magazines	Access - from the computers of the university.	Not limited

## 8.4.3 Open access resources

No	Name of the electronic resource	Brief description (content)	Access conditions
one.	Electronic articles and abstracts	Electronic medical magazines	Not limited
2.	Clinical recommendations of the Ministry of Health of the Russian Federation	Protocols for the management of various dental nosologies	Not limited
3.	Standards of care <a href="http://www.rspor.en/index.php?mod1=standards3&amp;mod2=db1">http : www . rspor . en / index . php ? mod 1= standards 3&amp; mod 2= db 1</a>	Medical care standards	Not limited

4.	State Register of Medicines <a href="http://www.drogreg.en/bases/WebReestrQuery.asp">http://www.drogreg.en/bases/ WebReestrQuery.asp</a>	List of commonly used drugs	Not limited
5.	Federal State Institution Scientific Center for Expertise of Medicinal Products of Roszdravnadzor <a href="http://www.regmed.ru">http://www.regmed.ru</a>	Circulation of medicines	Not limited
6.	Pharmaceutical Information Foundation <a href="http://drugreg.en">http://drugreg.en</a>	Medications	Not limited
7.	Russian Encyclopedia of Medicines <a href="http://rlsnet.en">http://rlsnet.en</a>	Medications	Not limited
8.	Handbook Vidal. <a href="http://www.vidal.ru">http://www.vidal.ru</a>	Medications	Not limited
9.	STAR-Dental Association of Russia <a href="http://www.e-stomatology.en">www.e-stomatology.en</a>	Guidelines	Not limited
10.	Russian State Library (RSL) <a href="http://www.rsl.en/">http://www.rsl.en/</a>	Abstracts for which there are copyright agreements with permission for their open publication.	Not limited
11.	Scientific electronic library of open access CyberLeninka <a href="http://cyberleninka.ru/">http://cyberleninka.ru/</a>	Full texts of scientific articles with annotations published in scientific journals in Russia and neighboring countries.	Not limited
12.	Federal Electronic Medical Library (FEMB) <a href="http://neb.rf/">http://neb.rf/</a>	Includes electronic analogues of printed publications and original electronic publications that have no analogues recorded on other media (dissertations, abstracts, books, magazines, etc.)	Not limited
13.	European Association of Scientists, Educators and Dental Professionals <a href="http://www.ed-academy">www.ed-academy</a>	Dental education, scientific activity	Not limited

14.	Russian Medical Academy of Postgraduate Education www . rmappo . en /	Information about the departments and departments, scientific subdivisions.  Selection committee.	Not limited
15.	American Dental Association of Dentists www . americandental . ru / index . html ? page =23	International standards and requirements for dental products	Not limited

### 9. Logistics support of discipline.

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

1. Dental rooms equipped with the necessary equipment and equipment No. 5
2. X-ray room
3. Sterilization

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

##### Lectures:

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

##### Tables and albums.

1. Classification of non-carious lesions and caries.
2. Classification of pulpitis.
3. Classification of periodontitis.
4. Classification of periodontal diseases.
5. Classification of diseases of the oral mucosa.
6. Indexes:
  - a) periodontal index PI;
  - b) hygiene index according to Fedorov-Volodkina, Green-Vermillion;
  - c) simplified index of oral hygiene;
  - d) PMA index.
  - e) CPITN index
7. Endodontics.
8. Rules and stages of preparation of carious cavities and non-carious lesions.
9. Flap operation.
10. Open curettage.
11. Closed curettage.
12. The structure of enamel.
13. The structure of dentin.
14. The structure of cement.
15. Artistic restoration of teeth grades 1-6 Black.
16. Endodontic manipulations in difficult and impassable, previously sealed (with pastes, gutta-percha) root canals.
17. Teeth whitening techniques.

##### *Presentations, transparencies, albums, videos:*

1. Caries and its complications (pulpitis, periodontitis).
2. Prevention of caries and non-carious lesions of hard tissues.
3. Periodontal disease (gingivitis, periodontitis, periodontal disease, idiopathic diseases).
4. Diseases of the oral mucosa.

5. Non-carious lesions of the teeth.
6. Anesthesia in the practice of therapeutic dentistry.
7. Methods of examination of the patient in the clinic of therapeutic dentistry.
8. Carifree dentistry.
9. High technologies in the practice of therapeutic dentistry (cofferdam, gutta-percha, Thermophiles, Ribbond, fiberglass pins, etc.).

Workshops:

1. Dental rooms equipped with the necessary equipment and equipment No. 5
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 stock, endodontic instruments in stock, etc.).
2. Dental filling materials for filling root canals, carious cavities and non-carious lesions.
3. Dry oven, autoclave.
4. Germicidal lamp.
5. Bixes for sterilization.
6. Negatoscope.
7. Odontosensimeter, Digitest.
8. Apparatus Diathermocoagulator.
9. Hydromassage apparatus.
10. Ultradent apparatus.
11. Amalgamator.
12. Apparatus "Neuron-01".
13. Apparatus "Neuron-02".
14. Apparatus "Mirabel".
15. Apparatus IGNL.
16. Tonometer.
17. Phonendoscope.
18. Assistant's chair.
19. Dentist's chair.
20. Dentist's table.
21. Dental unit (Azimuth, Galant, DabiAtlant, Performer-IDek, Castellini).
22. Apex locator.
23. MiniPieson.
24. Assist.
25. Televisions and VCRs.
26. 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.
4. Sweeteners.
5. Prevention of non-carious diseases, dental caries and periodontal diseases.
6. A set of orthopantomograms and intraoral radiographs.

7. Treatment, prevention of periodontal diseases and oral mucosa.
8. Recommended literature on therapeutic dentistry, published in a typographical way by the teaching staff of the Department of Therapeutic Dentistry.

*Training dummies:*

1. Teeth with 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. Pig heads for the demonstration of periodontal surgery.
9. ABOUT educational technologies in an interactive form used in the process of teaching the discipline:

1. role play
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.

Set of electronic presentations.

Lecture hall, screen, projector, laptop, screen, TV, video camera, laidoscope, video recorder, PC, video and DVD players, monitors, sets of slides, tables / multimedia visual materials on various sections of the discipline, video films, boards and others

9.3. Examples of educational technologies in an interactive form:

No	Section name	Forms of classes using active and interactive educational technologies
1	Non-carious lesions of hard tissues of the teeth that occur after eruption: hyperesthesia of the teeth, necrosis of hard tissues.	Role-playing game
2	Non-carious lesions of hard tissues of the teeth that occur after eruption: enamel erosion, wedge-shaped defects.	Seminar-discussion
3	Non-carious lesions of hard tissues of teeth that occur after eruption: abrasion of hard tissues.	business game
4	Non-carious lesions of the hard tissues of the teeth that occur before eruption: hypoplasia.	Lecture - Visualization
5	Non-carious lesions of the hard tissues of the teeth that occur before eruption: fluorosis.	Seminar-discussion
6	Non-carious diseases genetically determined	Lecture - visualization

(recessively or dominantly linked to the gene)
--

**Role play design.** The methodology of the game can be demonstrated on the example of simulating a clinical situation - hyperesthesia of hard dental tissues. There are several stages in the role-playing game.

- determination of the goal of the game, development of a game scenario depending on the topic of the lesson: study of the clinic, diagnosis, differential diagnosis of non-carious diseases, thresholds of sensitivity and emotional lability were determined;
- instructing participants: the moderator (the role of a teacher or educator) names the topic of the lesson, determines its significance, focuses students' attention on the need to highlight 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.

**Dive into 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 choose cards with a given role in the "blind", determine the range of questions in accordance with the job responsibilities associated with the admission of a patient with hyperesthesia of hard dental tissues. 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.

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 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 periodontal disease, which may accompany the underlying disease.

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 prescription.

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 role performers, 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 (2-3 days before the seminar) during independent work, the 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 appointed to lead the seminar.

His responsibilities include:

- compliance with the time limit for each question;
- directing the discussion of the issue (to whom to give the floor for a 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 seminar 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 main requirement for the organization of work at such a seminar is the following: the trainees should solve the problems posed by themselves as often as possible. but to 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.

### **Conducting a business game**

**1. Introduction to the game** . Usually at this stage, the participants are introduced to the meaning, goals and objectives of the game being played, the general rules, they are consulted and instructed. However, if necessary, the game may be preceded by a lecture or conversation on the topic "Methods of examining a patient with non-carious lesions of hard dental tissues. Dental and medical documentation.

**2. Dividing listeners into groups.** The optimal group size is 5-7 people; in each group, a leader is selected and, if necessary, playing roles are distributed (dentist, patient). Roles can be distributed both at the beginning of the game, and as needed, as it progresses.

**3. Immersion in the game.** In this fragment, the listeners receive a "game task", for example: to determine the examination methods used to diagnose periodontal diseases in a patient. The game participants analyze the proposed situation, diagnose and rank problems, agree on terminology, formulate problems, etc. In addition, they receive not only information, materials for analysis, but also attitudes on the behavior and rules of the game, therefore, *there is a process of familiarization with the rules and entry into role-playing behavior.*

**4. Gameplay.** At this stage, in accordance with the strategy adopted in each group, the search or development of solutions is carried out. During the discussion, a collective decision is developed, then a project is developed and substantiated, which is visualized on posters or a slide show, the documents necessary for the decision and its presentation at the plenary session are filled in using standard programs. At this stage, it is necessary to use the Internet for communication and information gathering; various search engines. Consultations with the teacher can be carried out by e-mail, using forums and live chats. Among the Internet resources most often used in independent work, it should be noted electronic libraries, educational portals, thematic sites, bibliographic databases, sites of periodicals. To perform calculations and prepare presentations, it is recommended to use standard software packages.

**5. General discussion or plenum.** Each group delegates a representative of their team to present and justify their decisions or projects (exchange of opinions, opposition, questions and answers). To conduct intergroup communication, the spatial environment of the game changes, and special roles are assigned, as a rule, performing game functions ("devil's advocate", provocateur, opponent, critic, etc.). Expert groups are actively working at the plenum, which evaluate not only the results of the projective activities of the teams, but also the culture of communication and presentation. As a result of the discussion, the teacher can also speak, but only with comments on the content of the discussion, on projects, and not in general on the whole game. In addition, the teacher at this stage has to conduct a plenum, and, consequently, raise questions and correctly manage the process of exchanging opinions.

**6. Summing up the game .** The need for this stage is especially important, since decisions and projects are evaluated here, different strategies are introduced, their effectiveness and competitiveness are determined. In addition, at this stage, points, penalty and incentive points are calculated, the best teams, players, projects are identified. It is at this stage that the game gets its logical conclusion. The evaluation system must ultimately correlate the planned goals and the result of the game.

**7. Unloading from the game.** There are many techniques that contribute to the "unloading" of participants from the gameplay. Their choice depends on the goals of the game and the game-technical competence of the teacher. The final part of the game can be devoted to the reflections of the participants about their future, about the prospects for using this kind of learning technologies in the educational process, homework, etc.

Software:

Distance education, tests for 2-5 courses, website of the department, electronic library, clinical situational tasks on all topics, plans for lectures and practical classes, schedules, a list of student's practical skills and abilities, questions for exams, etc.

**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 educational organizations, with no expiration date, with the right to receive updates for 1 year.	220	Office Application	LLC "NEW CLOUD TECHNOLOGIES"	283	without limitation, with the right to receive 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 FGBOU VO "PIMU" of the Ministry of Health of Russia	170	Office Application	Microsoft		23618/HN10030 LLC "Softline Trade" from 04.12.2020

Department of  
**THERAPEUTIC DENTISTRY**

---

**CHANGE REGISTRATION SHEET**

working program for the academic discipline  
**NON-CARIOUS LESIONS OF HARD DENTAL TISSUES**

---

Field of study / specialty / scientific specialty: 31.05.03 DENTISTRY \_\_\_\_\_  
(code, name)

Training profile: DENTISTRY \_\_\_\_\_  
(name) - for master's degree programs

Mode of study: FULL-TIME \_\_\_\_\_  
full-time/mixed attendance mode/extramural

Position	Number and name of the program section	Contents of the changes made	Effective date of the changes	Contributor's signature
1				

Approved at the department meeting  
Protocol No. \_\_\_\_\_ of \_\_\_\_\_ 20\_\_

Head of the Department

\_\_\_\_\_  
department name, academic title

\_\_\_\_\_  
signature

\_\_\_\_\_  
print name