

Summary of the working program of the academic discipline

«Research methods in dentistry»

General Educational Program of higher education 31.05.03 *Dentistry*

Department: **orthopedic dentistry and orthodontics**

1. The purpose of mastering the discipline (*participation in the formation of relevant competencies – specify the codes*): UC – 1, PC – 6, PC – 7. To familiarize students with the principles of organization and operation of the orthopedic dentistry clinic and dental laboratory; to teach the peculiarities of examination of patients with defects and deformities of teeth and dentition, periodontal and TMJ diseases, deformities and defects of the maxillofacial region, pathological conditions of the dental system associated with an anomaly of the development of the dental system; to teach the basics of diagnosis and planning of orthopedic treatment; to teach students the methods of conducting the clinical stages of manufacturing fixed and removable denture structures; to familiarize students with the laboratory stages of manufacturing various fixed and removable dentures; to familiarize with possible complications in orthopedic treatment with fixed and removable dentures and methods of their elimination and prevention.

2. Position of the academic discipline in the structure of the General Educational Program (GEP).

2.1. The discipline research methods in dentistry refers to the core part of Block 1 of GEP HE. The discipline is studied in the fourth semester.

Orthopedic dentistry is a profile discipline of paramount importance. The main task of the Department of Orthopedic Dentistry is the theoretical and practical training of a doctor capable of solving issues of prevention, diagnosis and treatment of dental diseases. The general preventive orientation of the orthopedic 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, their treatment local and general, preventive manipulations, as well as recommendations and tips that certainly accompany the therapeutic and preventive activities of the doctor.

Based on the knowledge gained by the student at the general clinical, general biological, dental departments and the Department of Children's Diseases, to teach students the peculiarities of prevention, clinic, diagnosis and treatment of dental diseases. To prepare a doctor who is able to work in a medical and preventive institution after the internship.

Orthopedic dentistry includes such a volume of theoretical material and practical skills that allows you to observe the principle of continuity of clinical training in the main sections of the discipline (prevention, therapy, orthodontics, surgery) and related specialties, providing an opportunity to teach, treat, study and put into practice new methods of prevention, treatment and medical examination.

Research methods in dentistry are used in the formation of the content of the final state certification in the specialty dentistry.

3. Deliverables of mastering the academic discipline and metrics of competence acquisition

Mastering the discipline aims at acquiring the following universal (UC) or/and general professional (GPC) or/and professional (PC) competencies

p/n o.	Competence code	The content of the competence (or part of it)	Code and name of the competence acquisition metric	As a result of studying the discipline, students should:		
				To know	Be able to	Possess

1.	UC-1	He is able to carry out a critical analysis of problem situations based on a systematic approach, to develop a strategy of actions	<p>IUC 1.1 Knows: methods of critical analysis and evaluation of modern scientific achievements; basic principles of critical analysis</p> <p>IUC 1.2 is able to: acquire 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 actions, experiment and experience</p> <p>IUC 1.3 Has practical experience: research of the problem of professional activity with the use of analysis, synthesis and other methods of intellectual activity; development of an action strategy for solving professional problems</p>	Methods of information analysis and synthesis.	Think abstractly, analyze and synthesize information.	Abstract thinking, analysis and synthesis of the received information.
2.	PC -6	Readiness to collect, analyze complaints and other information from the patient (relatives/ legal representatives), his anamnesis data, interpretation of examination results, laboratory, instrumental, pathoanatomic and other studies in order to recognize the condition or establish the presence or absence of dental disease, symptoms, syndromes of dental diseases, establishment of nosological forms in accordance with International statistical classification of diseases and health-related problems and other regulatory documents of the Ministry of Health of the Russian	<p>IPC 6.1 Knows:</p> <p>The methodology of collecting complaints and anamnesis from patients (their legal representatives).</p> <p>Methods of physical examination of patients (examination, palpation, percussion, auscultation).</p> <p>The procedure for providing medical care to adults with dental diseases</p> <p>The procedure for providing medical care to children with dental diseases</p> <p>Clinical recommendations on the provision of medical care to patients with dental diseases</p> <p>Standards of medical care</p> <p>IPC 6.2.Can:</p> <p>interpret the results of examination, laboratory, instrumental, pathoanatomic and other studies in order to recognize the condition or establish the presence or absence of dental disease, symptoms, syndromes of dental diseases, the establishment of nosological forms in accordance with the International Statistical Classification of Diseases and Health-related Problems and other regulatory documents of the Ministry of Health of the Russian Federation (Procedure for medical care, Standard of medical care, Clinical recommendations on the provision of medical care, etc.)</p> <p>Develop a treatment plan for children and adults with dental</p>	International Statistical Classification of Diseases.	Apply the International Statistical Classification of Diseases	The methodology for determining the main pathological conditions and syndromes in patients in accordance with the International Statistical Classification of Diseases.

		<p>Federation (Procedure for medical care, Standard of Medical Care, Clinical recommendations on medical care, etc.)</p>	<p>diseases in accordance with the procedures for providing medical care, clinical recommendations, taking into account the standards of medical care.</p> <p>IPC 6.3 Has practical experience: interpretation of the results of examination, laboratory, instrumental, pathoanatomic and other studies in order to recognize the condition or establish the presence or absence of dental disease, symptoms, syndromes of dental diseases, the establishment of nosological forms in accordance with the International Statistical Classification of Diseases and Health-related Problems, and other regulatory documents of the Ministry of Health of the Russian Federation (Procedure for medical care, Standard of medical care, Clinical recommendations on the provision of medical care, etc.)</p> <p>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 providing medical care, clinical recommendations, taking into account the standards of medical care</p>			
3.	PC -7	<p>Ability to determine the tactics of management of patients with various dental diseases in accordance with Clinical recommendations and other regulatory documents of the Ministry of Health of the Russian Federation in outpatient and day hospital conditions, taking into account the age of the patient.</p>	<p>IPC 7.1 Knows: Methods of drug and non-drug treatment, medical indications for the use of medical devices for dental diseases Groups of medicines used to provide medical care in the treatment of dental diseases; the mechanism of their action, medical indications and contraindications to the appointment; compatibility, possible complications, side effects, adverse reactions, including serious and unforeseen Principles, techniques and methods of anesthesia, selection of the type of local anesthesia in the treatment of dental diseases Methods of preventing or eliminating complications, side effects, adverse reactions, including serious and unforeseen, that occurred during the examination or treatment of patients with diseases of the</p>	<p>Tactics of management of patients with diseases of the dental system.</p>	<p>To determine the tactics of management of patients with diseases of the dental system.</p>	<p>Tactics of management of patients with diseases of the dental system.</p>

		<p>teeth, pulp, periodontal, periodontal, oral and lip mucosa</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; structure of teeth; histology and embryology of the oral cavity and teeth, the main disorders of embryogenesis</p> <p>IPC 7.2.Can:</p> <p>Develop a treatment plan for children and adults with dental diseases in accordance with the procedures for providing medical care, clinical recommendations, taking into account the standards of medical care</p> <p>To select and prescribe medications, medical devices (including dental materials), dietary nutrition, therapeutic and wellness regimen for the treatment of children and adults with dental diseases in accordance with the current procedures for providing medical care, clinical recommendations, taking into account the standards of medical care</p> <p>Determine medical indications and contraindications to local anesthesia techniques of the maxillofacial region</p> <p>To carry out local anesthesia (application, infiltration, conduction) in children and adults with dental diseases</p> <p>Perform medical interventions, including therapeutic, in children and adults with dental diseases on an outpatient basis (excluding repeated endodontic treatment):</p> <ul style="list-style-type: none"> - individual oral and dental hygiene training, selection of oral hygiene products and items - controlled brushing of teeth - professional oral and dental hygiene - injection of drugs in the maxillofacial region - local application of remineralizing drugs in the tooth area - deep fluoridation of tooth enamel - sealing the fissure of the tooth with a sealant - professional teeth whitening - grinding of hard tooth tissues - restoration of the tooth by 			
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			<p>filling using dental cements, chemical curing materials, photopolymers</p> <ul style="list-style-type: none"> -restoration of teeth with violation of the contact point - restoration of the tooth with filling material using anchor pins - applying a devitalizing paste - pulpotomy (amputation of the crown pulp) - pulp extirpation - instrumental and medical treatment of a well-traversed root canal - temporary filling of the root canal with a drug - filling of the root canal of the tooth with paste, gutta-percha pins - removal of supragingival and subgingival dental deposits in the tooth area (by manual method) - ultrasound removal of supra-gingival and subgingival dental deposits in the tooth area - closed curettage for periodontal diseases in the tooth area - application of a therapeutic bandage for periodontal diseases in the area of one jaw - prescribing drug therapy for diseases of the oral cavity and teeth - appointment of dietary therapy for diseases of the oral cavity and teeth <p>Perform medical interventions, including surgical, in children and adults with dental diseases on an outpatient basis (excluding the removal of retentive and dystopian teeth):</p> <ul style="list-style-type: none"> - tooth extraction - removal of a temporary tooth - permanent tooth removal - opening and drainage of an odontogenic abscess <p>To carry out step-by-step sanitation of the oral cavity (excluding sanitation of the oral cavity in children in the conditions of an anesthetic manual)</p> <p>Perform medical interventions, including orthopedic, in adults with dental diseases on an outpatient basis (excluding prosthetics on dental implants, technologies for automated manufacturing of orthopedic structures, complete removable plate and clasp prostheses):</p> <ul style="list-style-type: none"> - obtaining anatomical and 			
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			<p>functional impressions</p> <ul style="list-style-type: none"> - restoration of the tooth with a crown - restoration of the integrity of the dentition with fixed bridges - prosthetics with partial removable plate prostheses - correction of removable orthopedic construction - removal of a non-removable orthopedic structure <p>Interpret the results of X-ray examinations of the maxillofacial region</p> <p>To consult children and adults with diseases of the mucous membrane of the mouth and lips, to determine indications for referral to specialist doctors</p> <p>Prevent or eliminate complications, side effects, undesirable reactions, including unforeseen ones, resulting from diagnostic or therapeutic manipulations, the use of medicines and (or) medical devices, non-drug treatment</p> <p>IPC 7.3 Has practical experience: Selection and appointment of medicines, medical devices (including dental materials) for the treatment of dental diseases in children and adults in accordance with the current procedures for the provision of medical care, clinical recommendations, taking into account the standards of medical care</p> <p>Prescribing dietary nutrition, therapeutic and health regime for the treatment of dental diseases in children and adults in accordance with the current procedures for providing medical care, clinical recommendations, taking into account the standards of medical care</p> <p>Performing medical interventions in children and adults with dental diseases in accordance with the current procedures for providing medical care, clinical recommendations, taking into account the standards of medical care</p> <p>Evaluation of the results of medical interventions in children and adults with dental diseases</p> <p>Selection of the type and implementation of local anesthesia (application, infiltration, conduction) in children and adults with dental</p>			
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Classroom work, including	0,61	22	22						
Lectures (L)	0,06	2	2						
Laboratory practicum (LP)*									
Practicals (P)	0,56	20	20						
Seminars (S)									
Student's individual work (SIW)	0,38	14	14						
Mid-term assessment exam									
TOTAL LABOR INTENSITY	1	36	36						

5. Sections of the academic discipline and competencies that are formed

No	Competence code	Section name of the discipline
1	UC-1, PC-6, PC-7	Research methods in dentistry