



**CD 8.5.1 DISCIPLINE SYLLABUS FOR  
UNIVERSITY STUDIES**

**Edition:**

**08**

**Date:**

**21.02.2020**

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**FACULTY OF STOMATOLOGY  
STUDY PROGRAM IN 0911.1 STOMATOLOGY  
DEPARTMENT OF PEDIATRIC ORAL AND MAXILLOFACIAL  
SURGERY AND PEDODONTICS „ION LUPAN”**

**APPROVED**

at the meeting of the Commission for Quality  
Assurance and Evaluation of the Curriculum in  
Stomatology

Minutes No. 1 of 22.09.2020

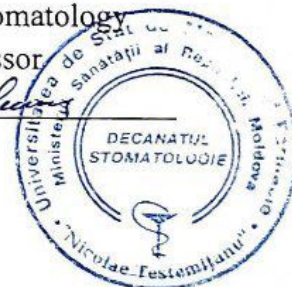
President, PhD MD, associate professor  
Stepco Elena [Signature]

**APPROVED**

at the Council meeting of the Faculty of  
Stomatology

Minutes No. 2 of 30.09.2020

Dean of the Faculty of Stomatology  
PhD MD, associate professor  
Solomon Oleg [Signature]



**APPROVED**

at the meeting of the Department of pediatric oral and  
maxillofacial surgery and pedodontics „Ion Lupan”

Minutes No. 1 of 26.08.2020

Head of the Department,  
PhD MD, associate professor  
Railean Silvia [Signature]

**SYLLABUS**

**DISCIPLINE PRACTICAL TRAINING: PEDIATRIC DENTISTRY**

**Intergated studies**

Type of the course: **Obligatory discipline**

Chişinău, 2020



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### **I. PRELIMINARY**

- **General presentation of the discipline:**

Pediatric dentistry comprises a number of clinical disciplines: pediatric oro-maxillo-facial surgery, pedodontics and orthodontics, the study of which enables the future dentist to assimilate the diagnosis, clinical picture, treatment, prevention of dental diseases in children and to organize dental care for children.

Pediatric dentistry is a difficult, multicomponent specialty, and the training of a dentist acting clinically in terms of the particularities of the growing organism requires the submission of all forces, time and energy.

The Pediatric Dentistry Strategy is the teaching of the material, the treatment of children with oral pathology, the practical application of the knowledge to the contemporary requirements in order to contribute to accelerating the task of improving the health of the children.

- **The aim of the practical training** is professional training in pediatric dentistry and consists in improving the knowledge and practical skills accumulated at the department of oro-maxillo-facial pediatric surgery, pedodontics and orthodontics, depending on the particularities and the working volume of the dental offices, oral hygiene, etc.

Curriculum Mission (purpose) in vocational training: theoretical and practical training of students on the diagnosis, clinical picture, treatment and prevention of the main dental diseases in children.

The discipline "Practical training for pediatric dentistry" for dental students is planned for the IXth semester (15 working days), of which 7 days for pedodontics, 3 days for pediatric oro-maxillo-facial surgery and 3 days for Orthodontics. Day work - 6 hours.

Place of organization: IMSP Municipal Dental Center for Children in offices of pedodontics, pediatric dental surgery, orthodontics, in dental offices in high schools, schools, kindergartens, etc.

The student performs the duties of assistant of pediatric dentist and works under the doctor-curators' supervision.

The practical training is finalized with a Different Colloquium; the note is fixed in the notebook by the examiners.

- **Teaching language:** romanian, english.

- **Beneficiaries:** students of the Vth year of the Stomatology.



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### II. ADMINISTRATION OF THE DISCIPLINE

Code of the discipline		<b>S.09.O.115</b>	
Name of the discipline		<b>Practical Training: Pediatric Dentistry</b>	
Responsible person for discipline		<b>Spinei Iurie, PhD MD, Associate Professor</b>	
Year	<b>V</b>	Semester	<b>IX</b>
Number of hours total, including:			<b>90</b>
Individual work			<b>-</b>
Practical training			<b>90</b>
Form of evaluation	<b>CD</b>	Numbers of credits	<b>3</b>



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### III. THE TRAINING OBJECTIVES WITHIN THE DISCIPLINE

*At the end of the course, the student will be able to:*

• *at the level of knowledge and understanding:*

- to know the basics of pediatric oro-maxillo-facial surgery;
- to know the methods of anesthesia;
- to know the particularities of the dental extraction operation;
- to know the diagnosis, treatment and prophylaxis of inflammatory diseases of the oro-maxillo-facial area;
- to know the diagnosis, the treatment of soft tissue lesions;
- to know the diagnosis, the treatment of maxillary and dental traumas in children and adolescents;
- to identify the instrumentation and devices required for an office of pediatric oro-maxillo-facial surgery;
- to know the stages of rehabilitation of children at different age of the child;
- to know the methods of post-operative rehabilitation in the dento-alveolar region depending on the child's health group;
- be familiar with the indications of surgical treatment of inflammatory processes and traumas in hospital and polyclinic conditions;
- to know the principles of the etiology of congenital malformations in the OMF region;
- know the degree of damage to the oro-maxillofacial region and the establishment of the multidisciplinary rehabilitation plan;
- to know the diagnosis and prophylaxis of birth defects of the face and jaws;
- to know the classification of congenital clefts of upper lip, soft palate and palate, alveolar apophysis, and clinical manifestations at stages of child development;
- to know the principles of preoperative preparation of children with congenital malformation;
- to know the elements of preparation of the operator field and the postoperative evaluation of the surgical wound;
- to know dento-alveolar pathological changes, in various forms of malformation;
- to know the clinical manifestations, the particularities of etiology and evolution, clinical diagnosis of the benign tumors of the head and neck region in children and adolescents;
- to know the particularities of clinical manifestations of malignant tumors in the head and neck region;
- to know the multidisciplinary rehabilitation aspects of children with tumoral processes in the oral and maxillofacial area;
- to know the basics of pedodontics;
- to know the diagnosis, treatment and prophylaxis of dental caries in children and adolescents;
- to know the diagnosis, treatment and prophylaxis of complicated caries (temporary and permanent teeth pulpitis and periodontitis) and non-carious affections (amelogenesis imperfecta, dentinogenesis imperfecta, Steinton-Cap-de-Pont syndrome, dental hypoplasia, endemic fluorosis, traumas of temporary and permanent teeth, etc.) in children;
- to know the diagnosis, treatment and prophylaxis of periodontal disease and oral mucosal diseases in children;
- to know the bases of prevention of dento-maxillary abnormalities;
- to know the etiology, clinical manifestations and objectives of interceptive treatment of physiological and pathological dental occlusions according to the reference plans;
- to know the aetiology, clinical manifestations and diagnosis, methods of diagnosis of physiological and pathological dental occlusions according to the reference plans;
- to know the biometric study of the study model as a complementary exam in the diagnosis of dento-maxillary abnormality.



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- ***application level:***

- to establish psychological and verbal contact with children of different ages;
- to establish contact with parents in the treatment of children;
- to perform palpation of soft tissues and facial bones, lymph nodes, salivary glands;
- to perform thermodiagnostic and electrodiagnostic of the teeth;
- to realize teeth extraction in children and adolescents;
- to open the subperiodal abscesses;
- to perform dressings for children and adolescents;
- to immobilize the traumatized teeth;
- to perform infiltrative, truncular and applicative anesthesia in children;
- to interpret radiographs, orthopantomograms and tomograms;
- to apply the knowledge gained in the assessment of clinical tests;
- to solve clinical situation problems;
- to probe the channels of the salivary glands;
- to apply knowledge gained in the assessment of clinical tests;
- to solve problems of the situation;
- to be able to collect the patient's anamnesis data;
- to be able to describe the anatomo-physiological changes;
- to be able to complete the patient's medical record and information agreement;
- to be able to carry out a rehabilitation plan for children with congenital malformations;
- to be able to perform the clinical examination in children with congenital malformations;
- to establish contact with parents in the treatment of children;
- to perform palpation of soft tissues and facial bones, lymph nodes, salivary glands;
- to diagnose the congenital dehiscences of the superior lip, palate;
- to establish the diagnosis of oro-maxilo-facial region tumors in children and adolescents;
- to be able to argue the need for the paraclinical examination, depending on the form of congenital malformation;
- to establish psychological and verbal contact with children of different ages;
- to establish contact with parents in the treatment of children;
- to perform palpation of soft tissues and facial bones, lymph nodes, salivary glands;
- to perform probing, percussion and appreciation of tooth mobility;
- to note the dental formula in children of different ages;
- to determine the df, DMF, DMF + df indices;
- to perform thermodiagnostic and electrodiagnostic of the teeth;
- to determine and interpret the hygiene of the oral cavity in children;
- to diagnose, treat and prevent dental caries in children and adolescents;
- to apply remineralization therapy;
- to polish the carious spots;
- to apply solutions, gels and fluorolage to the surface of the teeth;
- to seal dental fissures;
- to prepare carious cavities;
- to prepare the cavity filling materials (cements, silver amalgam, composites, etc.);
- to restore correctly the carious cavities with filling materials;
- to prepare and apply temporary, isolating and permanent obturations;
- to accomplish the finishing and polishing of the seals;
- to perform infiltrative, truncular and applicative anesthesia in children;
- to establish psychological and verbal contact with children of different ages;
- to establish contact with parents in the treatment of children;



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- to perform palpation of soft tissues and facial bones, lymph nodes, salivary glands;
  - to perform probing, percussion, and appreciation of tooth mobility;
  - to determine and interpret the hygiene of the oral cavity in children;
  - to perform the diagnosis, treatment and prophylaxis of the complicated caries (temporary and permanent teeth pulpitis and periodontitis) and dental non-carious affections (amelogenesis imperfecta, dentinogenesis imperfecta, Steinton-Cap-de-Pont syndrome, dental hypoplasia, endemic fluorosis, traumas of temporary and permanent teeth, etc.) in children;
  - to apply remineralization therapy;
  - to apply solutions, gels and fluorides to the teeth surface;
  - to prepare carious cavities;
  - to prepare the cavity filling materials (cements, silver amalgam, composites, etc.);
  - to restore correctly the carious cavities with filling materials;
  - to accomplish the finishing and polishing of the seals;
  - to carry out the pulp seal by the indirect and direct method;
  - to carry out amputation (pulpotomy) and extirpation (pulpectomy) of dental pulp;
  - to perform instrumental and medical processing of temporary and permanent teeth in children;
  - to prepare and obturate the canals of temporary and permanent teeth in children;
  - to prepare and apply temporary, insulating and permanent obturations;
  - to remove deposits, dental tartar with manual instruments;
  - to remove deposits with rotating tool;
  - to remove deposits, dental tartar with ultrasound instruments;
  - to remove deposits, dental plaque with air-flow;
  - to perform the diagnosis, treatment and prophylaxis of periodontal disease in children;
  - to diagnose, treat and prevent oral mucosal diseases and diseases in children;
  - to apply solutions, gels and ointments to the surface of the gum, periodontal pockets and oral mucosa;
  - to perform the clinical examination of the orthodontic patient;
  - to determine symmetry and proportionality of the face, anthropometric indices;
  - to determine the risk factors for dento-maxillary abnormalities;
  - to determine the pernicious habits that lead to the appearance of dento-maxillary disharmony;
  - to be able to determination the static and dynamic occlusion in orthodontic patients;
  - to determine and interpret biometric indices on the study model;
  - to perform selective sanding as a method of interceptive treatment;
  - to make impression of jaws;
  - to cast and match study patterns;
  - to be able to adjust space maintainer.
- **at the integration level:**
- to appreciate the importance of Pediatric Dentistry in the context of Medicine;
  - to address creatively the problems of fundamental and clinical medicine;
  - to deduce the interrelations between Pediatric Dentistry and other clinical disciplines;
  - to have the skills to implement and integrate the knowledge gained in the clinical disciplines;
  - to be able to objectively evaluate and self-assess the knowledge in the field of dentistry;
  - to be able to implement the knowledge gained in the research activity;
  - to be competent to use critically and with confidence the scientific information obtained using the new information and communication technologies;
  - be able to use multimedia technology to receive, evaluate, store, produce, present and exchange information, and communicate and participate in networks via the Internet;



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- be able to learn to learn, which will contribute to the management of the professional path;
- to be able to assimilate and apply the new achievements in Pedodontics, Pediatric Oral and Maxillofacial Surgery and Orthodontics;
- to address creatively the problems of fundamental and clinical medicine;
- be able to use the biometric study in the diagnosis of dento-maxillary abnormalities according to the teeth;
- be able to impress the results of the biometric study in dental care.



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### **IV. PREVIOUS CONDITIONS AND REQUIREMENTS**

For good learning of the subjects the thorough knowledge is required in the field of fundamental

medicine, therapeutic dentistry, orthopedic dentistry, oro-maxillo-facial surgery, etc.

Student of year V needs to comply the following criteria:

- knowledge of the language of instruction;
- confirmed competences in high school sciences (biology, chemistry, physics);
- digital competences (use of the Internet, document processing, electronic tables and presentations, use of graphics programs);
- skills obtained in preclinical and clinical dental disciplines: dental propedeutics; dentistry; orthopedic dentistry; prophylaxis of dental affections;
- ability to communicate and team work;
- qualities - tolerance, compassion, autonomy



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### V. THE ORIENTAL TIMETABLE AND ORIENTATION OF HOURS

Nr. d/o	THEME	Number of hours
		Practical treaining
1.	Organization of dental care for children: pedodontics, prevention of dental diseases, pediatric OMF surgery and orthodontics. Medical documentation. Principles of organization of dental care for children. Obligations of medical staff in dental institutions.	6
2.	Diagnosis and treatment of caries of temporary teeth.	6
3.	Diagnosis and treatment of caries of permanent teeth in children.	6
4.	Diagnosis and treatment of pulpitis of temporary teeth.	6
5.	Diagnosis and treatment of pulpitis of permanent teeth in children.	6
6.	Diagnosis and treatment of periodontitis of temporary and permanent teeth in children.	6
7.	Diagnosis and treatment of systemic hypoplasia and dental fluorosis at children.	6
8.	Diagnosis and treatment of dental hard tissues traumas at children.	6
9.	Methods of prevention of basic dental affections at children.	6
10.	Local anesthesia at children in ambulatory dental practice. Dental extractions at children.	6
11.	Diagnosis and treatment of odontogenic and non-odontogenic inflammatory processes of the oro-maxillo-facial region in children.	6
12.	Diagnosis and treatment of oro-maxillofacial trauma in children.	6
13.	Diagnosis and treatment of malocclusions Class I by Angle.	6
14.	Diagnosis and treatment of malocclusions Class II by Angle.	6
15.	Diagnosis and treatment of malocclusions Class III by Angle.	6
<b>Total hours</b>		<b>90</b>



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### VI. REFERENCE OBJECTIVES AND CONTENTS UNITS

Objective	Content units
<b>Theme (chapter) 1.</b> Organization of dental care for children: pedodontics, prevention of dental diseases, pediatric OMF surgery and orthodontics. Medical documentation. Principles of organizing dental care for children. Obligations of medical staff in dental institutions.	
<ul style="list-style-type: none"> <li>to know the main disciplines of pediatric dentistry and the particularities of organizing dental care for children from rural and urban localities;</li> <li>to know and be able to complete the medical documentation at the dentist;</li> <li>to know the duties of medical staff in dental institutions;</li> <li>to examine childrens at different ages;</li> <li>to prepare the child for dental treatment: conversation, sedative training, local anesthesia, etc.</li> </ul>	<p>Main compartments of pediatric dentistry. Organizing of dental care for children. Medical documentation. Principles of organizing dental care for children. Obligations of medical staff in dental institutions.</p>
<b>Theme (chapter) 2.</b> Diagnostics and treatment of caries of temporary teeth.	
Objective	Content units
<ul style="list-style-type: none"> <li>to know and be able to perform the clinical and paraclinical examination of the child with temporary teeth;</li> <li>to know the particularities of the clinical development of temporary teeth caries;</li> <li>to know and be able to diagnose the caries of temporary teeth;</li> <li>to know the methods of treatment of temporary teeth caries in children of different ages;</li> <li>to know and be able to perform nonoperative treatment of the incipient forms of temporary teeth caries in children of different ages;</li> <li>to know and be able to perform operative treatment of the caries of temporary teeth in children of different ages;</li> <li>to know the methods and particularities of preparation of caries cavities in temporary teeth in children of different ages;</li> <li>to know the filling materials and their properties in the treatment of temporary teeth caries in children of different ages;</li> <li>to know the indications for the application of obturation materials in pedodontics practice;</li> <li>to know and be able to achieve the restoration of carious defects of temporary teeth in children of different ages.</li> </ul>	<p>The caries of temporary teeth in children. Classifications of temporary teeth caries. Caries clinical evolution particularities in temporary teeth. Diagnosis of temporary teeth caries. Non-operative treatment of the incipient forms of temporary teeth caries in children of different ages. Preparations for exogenous and endogenous caries of temporary teeth in children. Operative treatment of temporary teeth caries in children. Principles of caries cavity preparation for temporary teeth in children of different ages. Obturation materials for restoring temporary teeth. Selection of filling materials.</p>



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### **Theme (chapter) 3.** Diagnostics and treatment of permanent teeth caries in children.

<b>Objective</b>	<b>Content units</b>
<ul style="list-style-type: none"><li>• to know and be able to perform the clinical and paraclinical examination of the child with permanent teeth;</li><li>• to know the particularities of the clinical development of permanent teeth caries.</li><li>• to know and be able to diagnose the caries of permanent teeth;</li><li>• to know the methods of treatment of permanent teeth in children of different ages;</li><li>• to know and be able to perform nonoperative treatment of the incipient forms of permanent teeth caries in children of different ages;</li><li>• to know and to be able to perform the treatment of the incipient forms of permanent teeth caries in children of different ages;</li><li>• to know the methods and particularities of preparation of caries cavities in permanent teeth in children of different ages;</li><li>• to know the filling materials and their properties in the treatment of permanent teeth caries in children of different ages;</li><li>• to know the indications for the application of obturation materials in pedodontics practice;</li><li>• to know and be able to achieve the restoration of permanent caries defects in children of different ages.</li></ul>	<p>Caries of permanent teeth in children. Classifications of permanent teeth caries. Particularities of the clinical development of permanent teeth caries. Diagnosis of permanent teeth caries. Nonoperative treatment of the incipient forms of permanent teeth caries in children of different ages. Preparations for exogenous and endogenous caries of permanent teeth in children. Operative treatment of caries in permanent teeth in children. Principles of preparation of cavities in permanent teeth in children of different ages. Materials of obturation in pedodontics practice. Selection of filling materials.</p>

### **Theme (chapter) 4.** Diagnostics and treatment of temporary teeth pulpitis.

<ul style="list-style-type: none"><li>• to prepare the child for dental treatment: talk, sedative training, local anesthesia, etc.;</li><li>• to know the pulpitis classification of temporary teeth in children;</li><li>• to know and be able to perform the clinical and paraclinical examination of the dental pulpitis;</li><li>• to know the particularities of the clinical evolution of temporary teeth pulpitis in children;</li><li>• to know and be able to achieve the treatment of temporary teeth pulpitis in children through conservative treatment (through direct and indirect pulp capping);</li><li>• to know and be able to achieve the treatment of temporary teeth pulpitis in children by surgical approach (vital or devital, pulpotomy, pulpectomy);</li><li>• to know the preparations and be able to carry out the medical treatment of the temporary teeth root canals in children;</li></ul>	<p>Pulpitis of temporary teeth in children. Classification of temporary teeth pulpitis in children. Particularities of clinical evolution of temporary teeth pulpitis in children. Diagnosis of temporary teeth pulpitis in children. Conservative treatment of temporary teeth pulpitis in children (through direct and indirect pulp capping). Treatment of temporary teeth pulpitis in children by surgical methods (vital or devital, pulpotomy, deep pulpotomy, pulpectomy).</p>
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- to know and be able to perform instrumental processing of root canals of temporary teeth in children;
- to know and be able to achieve the filling of root canals of temporary teeth in children.

### **Theme (chapter) 5.** Diagnostics and treatment of permanent teeth pulpitis in children.

- to repair the child for dental treatment: talk, sedative training, local anesthesia, etc.;
- to know the pulpitis classification of permanent teeth in children;
- to know and be able to perform the clinical and paraclinical examination of the dental pulpitis;
- to know the particularities of the clinical evolution of permanent teeth pulpitis in children;
- to know and be able to achieve the treatment of permanent teeth pulpitis in children through conservative treatment (through direct and indirect pulp capping);
- to know and be able to achieve the treatment of permanent teeth pulpitis in children by surgical approach (vital or devital, pulpotomy, pulpectomy);
- to know the preparations and be able to carry out the medical treatment of the permanent teeth root canals in children;
- to know and be able to perform instrumental processing of root canals of permanent teeth in children;
- to know and be able to achieve the filling of root canals of permanent teeth in children.

Pulpitis of permanent teeth in children.  
Classification of permanent teeth pulpitis in children.  
Particularities of clinical evolution of permanent teeth pulpitis in children.  
Diagnosis of permanent teeth pulpitis in children.  
Conservative treatment of permanent teeth pulpitis in children (through direct and indirect pulp capping).  
Treatment of permanent teeth pulpitis in children by surgical methods (vital or devital, pulpotomy, deep pulpotomy, pulpectomy).

### **Theme (chapter) 6.** Diagnosis and treatment of periodontitis of temporary and permanent teeth in children.

- to know the periodontitis classification of temporary and permanent teeth in children;
- to know and be able to perform the clinical and paraclinical examination of the child with periodontitis of temporary and permanent teeth in children;
- to know the particularities of the clinical evolution of periodontitis of temporary and permanent teeth in children;
- to know and be able to diagnose periodontitis of temporary and permanent teeth in children;
- to know and be able to achieve the treatment of acute periodontitis of temporary and permanent teeth in children of different ages;
- to know and be able to achieve the treatment of chronic periodontitis of temporary and permanent teeth in

Apical periodontitis (periodontitis) of temporary and permanent teeth in children.  
Classifications of periodontitis of temporary and permanent teeth in children.  
Particularities of clinical evolution of periodontitis of temporary and permanent teeth in children.  
Diagnosis of periodontitis of temporary and permanent teeth in children.  
Conservative treatment of acute and chronic periodontitis of temporary and permanent teeth in children of different ages.  
Assessment of the efficacy of treatment of acute and chronic periodontitis of temporary and permanent teeth in children of different ages.



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children of different ages;

- to know the preparations and be able to carry out the medical root canal treatment of temporary and permanent teeth in children;
- to know and be able to perform instrumental processing of root canal of temporary and permanent teeth in children;
- to know and be able to achieve temporary and permanent teeth root canal filling in children.

**Theme (chapter) 7.** Diagnosis and treatment of systemic hypoplasia, dental fluorosis in children.

- to know the classification of hypoplasia and fluorosis of hard tissues in temporary and permanent teeth in children;
- to know and to perform the clinical and paraclinical examination of the child with hypoplasia and fluorosis of hard tissues of temporary and permanent teeth in children;
- to know the particularities of the clinical development of hypoplasia and fluorosis of hard tissues of the temporary and permanent teeth in children;
- to know and to achieve the treatment of hypoplasia and fluorosis of hard tissues of the temporary and permanent teeth in children.

Classification of hypoplasia and fluorosis of hard tissues in temporary and permanent teeth in children.  
Particularities of clinical development of hypoplasia and fluorosis of hard tissues in temporary and permanent teeth in children.  
Diagnosis of hypoplasia and fluorosis of hard tissues in temporary and permanent teeth in children.  
Treatment of hypoplasia and fluorosis of hard tissues in temporary and permanent teeth in children.  
Prophylaxis of hypoplasia and dental fluorosis in children.

**Theme (chapter) 8.** Diagnosis and treatment of traumas of dental hard tissue in children.

- to know the classification of hard tissue trauma of the temporary and permanent teeth in children;
- to know and be able to perform the clinical and paraclinical examination of the child with trauma of hard tissue of primary and permanent teeth in children;
- to know the particularities of the clinical development of the trauma of hard tissue in primary and permanent teeth in children;
- to know and be able to treat the trauma of hard tissue in primary and permanent teeth in children.

Classification of of hard tissue trauma in primary and permanent teeth in children.  
Particularities of the clinical evolution of hard tissue trauma of temporary and permanent teeth in children.  
Diagnosis of hard tissue trauma in primary and permanent teeth in children.  
Treatment of hard tissue trauma of temporary and permanent teeth in children.

**Theme (chapter) 9.** Methods of prevention of the main dental diseases in children.

- to be able to perform the clinical examination of the child with the evaluation of the dental deposits;
- to be able to perform the clinical and paraclinical examination of the child with evidence of the bacterial plaque;
- to assess the pathogenic capacity of the bacterial plaque;
- to evaluate the oral hygiene status with assessment of bacterial plaque and oral hygiene.

Dental film.  
Bacterial plaque.  
Revealed substances of bacterial plaque.  
White matter.  
Food scraps.  
Dental tartar.  
Bacterial plate and oral hygiene indices (Green-Vermillion, OHI-S, Silness-Loe, Quingley and Hein).



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- to apply knowledge and skills on the correct technique of dental brushing;
- to be able to perform guided dental brushing;
- to apply knowledge and skills on the training of interdental cleaning techniques;
- to develop the individual oral hygiene program according to the age of the patients and the clinical situation;
- to develop the children's health education program in organized communities;
- to be able to perform topical application of fluorinated solutions and / or fluids;
- to be able to apply the topical application of fluoride gels;
- to be able to apply the topical application of fluoride varnish;
- to evaluate the effectiveness of different dental caries prevention methods;
- to be familiar with the classification of materials for sealing dental fissures;
- to be able to perform the non-invasive method of sealing the dental fissures;
- to be able to perform the invasive method of sealing the dental fissures;
- to be able to appreciate the PMA index in children;
- to be able to appreciate CPITN in children;
- to know the particularities of preventive care of children at high risk of periodontal tissues;
- to be able to perform the clinical examination and individual selection of oral hygiene for children with periodontitis or high risk of periodontal tissues;
- to be able to perform the clinical examination and individual selection of oral hygiene products for children with dento-alveolar abnormalities and orthodontic appliances;
- to evaluate the health of the periodontal tissues;
- to develop individualized oral health programs for children according to age and risk groups.

Assessment of oral hygiene.  
Methods of health education.  
Methods of hygienic training of children in organized communities.  
Methods of local application of fluorinated solutions, gels and lacquers.  
Non-invasive dental sealing method: indications, contraindications and technique of realization.  
Invasive sealing method of dental fissures: indications, contraindications and technique of realization.  
Classification of materials for sealing dental fissures.  
Assessment of frequency and intensity indices of periodontal disease.  
Preventive dental care for children at high risk for periodontal tissues.  
Particularities of preventive care of children with periodontitis.  
Preventive care for children with dento-alveolar abnormalities and orthodontic appliances for the prevention of periodontal disease.  
Principles for the development of oral health programs.

**Topic (chapter)10.** Local anesthesia in dental pediatric ambulatory practice. Dental extraction in children.

- to know the anesthetics used in local anesthesia;
- to know and to perform the technique of topical, infiltrative, truncular anesthesia in children;
- to know the indications and contraindications of the extraction of primary, permanent teeth in children and adolescents;
- to be familiar with the peculiarities and be able to

Particularities of local anesthesia, anatomo-physiological particularities in children, local anesthesia technique in children, particularities and methods of resuscitation. Extraction of primary and permanent teeth in children and adolescents. The assessment of the particularities of the dental extraction



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perform the dental extraction in children and adolescents.

operation in children and adolescents.. Post-operative haemostasis. Rehabilitation of children with post-operative complications. Particularities of the surgical technique in relation to the forms of root flow.

**Theme (chapter) 11.** Diagnostics and treatment of the odontogenic and non -ontogenetic inflammatory processes of the oro-maxilo-facial region in children.

- to know and be able to carry out the clinical examination, diagnosis and treatment of furuncle and carbuncle in children.
- to know and to perform the methods of examination and treatment of sialoadenitis in children;
- to know and to perform the methods of examination, diagnosis and treatment of abscesses, phlegmons and adenitis in children.

Furuncule, carbuncle in children of different ages. Evolution, clinical and treatment features.  
Inflammatory diseases of the glands in children, methods of diagnosis, treatment. Indications of surgical treatment in hospital and polyclinic conditions.  
Odontogenic infections (abscess, phlegmon), adenitis, adenophlegmon in children. Diagnostic methods, evolutionary features, clinic, complications.  
Periostitis and osteomyelitis in children, classification, diagnosis, clinical development and pediatric treatment.

**Theme (chapter) 12.** Diagnosis and treatment of oro-maxillofacial trauma in children.

- to know the particularities of clinical evolution of soft tissue injuries, dental trauma in children;
- to perform the first surgical treatment of wounds in the maxillo-facial region;
- to perform fixation and immobilization of the traumatized teeth.
- to know the methods of diagnosis and treatment of maxillary trauma in children;
- to fix and immobilize the traumatized jaws;
- to know the complications, prophylaxis of maxillary trauma (fractures);

Soft tissue injuries, dental trauma, classification, diagnosis, clinical development, treatment.  
Principles of primary surgical treatment in the function of the child's age.  
Appreciation of associated trauma.  
Hemostasis methods.  
Provisional teeth immobilization methods.  
Methods of storing the avulsed teeth.  
Jaw maxillary trauma (fractures), classification, methods of diagnosing jaw fractures, methods of treatment, immobilization of maxillary fractures, treatment.  
Paraclinical examinations MRI, TC, OPG, X-rays in various projections of facial mass in trauma.

**Theme (chapter) 13.** Diagnosis and treatment of Class I malocclusions after Angle.

- to be able to perform the exobuccal and endobuccal clinical examination in patients with class I malocclusion;
- to be able to take the photometric exam;

Methods of diagnosis and orthodontic treatment of class I malocclusion Angles according to dentition.



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- to be capable taking impression with alginate masses of the upper and lower jaws;
- to be able to cast the gypsum models;
- to be able to carry out the biometric study of diagnostic models;
- to be familiar with the diagnostic and treatment objectives of Angle Class I malocclusion.

### **Theme (Chapter)14.** Diagnosis and treatment of Class II Angle malocclusions.

- be able to perform the exobuccal and endobuccal clinical examination in patients with class II / 1 and II/2 Angle malocclusions;
- be able to take the photometric exam;
- can achieve impressions with alginate masses of the upper and lower jaw;
- be able to mold molding and plastering;
- be able to carry out the biometric study of diagnostic models;
- to know the diagnostic and treatment objectives of Class II / 1 and II/2 Angle malocclusions.

Methods of diagnosis and orthodontic treatment of malocclusion of class II / 1 and II/2 by Angle, according to teeth

### **Theme (Chapter)15.** Diagnosis and treatment of Class III Angle malocclusions.

- be able to perform the exobuccal and endobuccal clinical examination in patients with class III Angle malocclusions;
- be able to take the photometric exam;
- be able to achieve impressions with alginate masses of the upper and lower jaws;
- be able to mold molding and plastering;
- be able to carry out the biometric study of diagnostic models;
- to be acquainted with the diagnostic and treatment objectives of class III Angle malocclusion.

Methods of diagnosis and orthodontic treatment of class III Angle malocclusions according to teeth.



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### **VII. PROFESSIONAL COMPETENCES (SPECIFIC (CS) AND TRANSVERSAL (CT) COMPETENCES AND STUDY FINDINGS**

#### ✓ **PROFESSIONAL COMPETENCES (SPECIFIC) (CS)**

- CS1. A thorough knowledge of the particularities of the structure, development and functioning of the dento-maxillary system in children at different stages of development.
- CS2. Elaboration of the plan for the diagnosis, treatment and prevention of dental pathology in children.
- CS3. Use of medical techniques, instrumental and laboratory investigations, digital technologies in the diagnosis and treatment of dental pathology in children.
- CS4. Performing various practical exercises and procedures in the diagnosis, treatment and prevention of sagittal malocclusions in children based on the knowledge of the fundamental and clinical disciplines (including dental).
- CS5. Planning, coordinating and conducting health promotion activities and prophylactic measures to improve health and prevent dental pathology in children at individual and community level, establish and implement complex dispensary plans applicable to school and pre-school colleges;
- CS6. Implementation of professional standards for assessment and quality assurance of dental services for children. Knowledge of the basic principles and functional structure of the medical and orthodontic care especially for the children of the Republic of Moldova.

#### ✓ **TRANSVERSAL COMPETENCES (CT)**

- TC1. Applying professional standards of assessment, acting according to professional ethics, as well as the provisions of the legislation in force. Promoting logical reasoning, practical applicability, assessment and self-assessment in decision-making;
- TC2. Performing activities and exercising the roles specific to team work in medical institutions and especially in dentistry. Promoting the spirit of initiative, dialogue, cooperation, positive attitude and respect for others, empathy, altruism and continuous improvement of their own activities;
- TC3. Systematic assessment of personal competencies, roles and expectations, application of self-assessments of learned processes, acquired skills and professionalisation needs, knowledge in information technologies, effective use of language skills, research and communication skills for quality dental services and adapting to the dynamics of policy requirements in health and for personal and professional development.

#### ✓ **FINAL STUDY**

*At the end of the course, the student will be able to:*

- evaluate caries risk in children of different ages;
- evaluate the nutritional risk factors in the onset of oral illness in examined children;
- appreciate guidelines for the administration of fluorinated preparations;
- apply topically fluorinated solutions or fluids;
- apply fluoride gels and varnishes to the surface;
- appreciate the indications for sealing the dental fissures;
- perform the non-invasive dental fissures sealing method;
- perform the invasive dental fissures sealing method;
- to select oral hygiene remedies for children with periodontal disease or high risk of periodontal diseases;



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- to select oral hygiene remedies for children with dento-alveolar abnormalities and orthodontic appliances;
- to appreciate the behavioral nature of children with disabilities and special needs during dental treatments and preventive care.
- to select methods of preventive care for children with different types of disabilities and special needs;
- to evaluate the effectiveness of various methods of dental caries prevention;
- to assess oral health with the use of indicators proposed by the WHO;
- to develop individualized oral health programs for children of depending on age and risk groups;
- to formulate optimal decisions in preventive dental care of children based on age and individual clinical situation;
- to promote healthy lifestyles and health education through speeches, papers, presentations, articles in specialized journals etc.;
- to apply various ways of psychological and moral support of children in preventive dental care;
- to be able to characterize the main features of diagnosis of temporary and permanent teeth caries and to apply them to children of different ages;
- to achieve the care of temporary and permanent teeth in children;
- to know and apply modern dental materials for the restoration of temporary and permanent teeth in children;
- to make optimal decisions in giving dental care to children with dental caries;
- to apply the methods of psychological knowledge in the professional activity and daily life of children in different age groups;
- to apply different ways of psychological and moral support of children in the treatment of dental caries;
- to be able to characterize the main features of the diagnosis of caries complications (temporary and permanent teeth pulpitis and periodontitis) and dental non-carious diseases (imperfect amelogenesis, imperfect dentinogenesis, Steinton-Cap-de-Pont syndrome, dental hypoplasia, endemic fluorosis, traumatic tissues temporary and permanent teeth, etc.) and apply them to children of different ages;
- to treat caries complications (pulpitis and periodontitis of temporary and permanent teeth) and dental non-carious diseases (imperfect amelogenesis, imperfect dentinogenesis, Steinton-Cap-de-Pont syndrome, dental hypoplasia, endemic fluorosis, traumatic tissues temporary and permanent teeth, etc.) in children;
- to know and apply modern dental materials for the restoration of temporary and permanent teeth in children;
- to make optimal decisions in providing dental care to children with pulpitis and periodontitis of temporary and permanent teeth and with dental non-carious diseases (imperfect amelogenesis, imperfect dentinogenesis, Steinton-Cap-de-Pont syndrome, dental hypoplasia, endemic fluorosis, traumatic tissues temporary and permanent teeth, etc.) in children;
- to apply methods of psychological knowledge in the professional activity and daily life of children in different ages;
- to apply various ways of psychological and moral support of children in the treatment of pulpitis and periodontitis of temporary and permanent teeth and with dental non-carious diseases (imperfect amelogenesis, imperfect dentinogenesis, Steinton-Cap-de-Pont syndrome,



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dental hypoplasia, endemic fluorosis, traumatic tissues temporary and permanent teeth, etc.) in children;

- to have the principles of peculiarities in local anesthesia in children according to age;
- to be able to determine the indications and contraindications of dental extraction operations in deciduous and permanent dentition according to developing and radicular resorption;
- to be able to perform the clinical examination, diagnosis of the odontogenic and non - odontogenic inflammatory diseases of the oro-maxillo-facial region;
- to know the principles of urgent (local and general) health care at the stages of evacuation of the patient with soft tissue, maxillary and dental trauma;
- to be able to choose treatment methods in different situations of surgical care in children with inflammation and trauma;
- to carry out a plan to rehabilitate children in situations of inflammation and trauma in relation to the child's age and general condition;
- to know the peculiarities of the primary surgical treatment in trauma in the oral and maxillo-facial region;
- to be able to choose the treatment methods in relation to the psychological particularities of the child according to the age of the child;
- to be able to characterize the main particularities of dental occlusion according to the teeth;
- to know the varieties of physiological occlusion, the morpho-functional particularities of the orthognathic occlusion in children from different periods of development of the dento-maxillary system;
- to perform the clinical examination of static and dynamic dental occlusion;
- to be able to characterize the morpho-functional particularities of occlusion anomalies;
- to be able to appreciate the efficiency of the biometric method of analysis of the study model;
- to know the photometric analysis of pre and post treatment photos;
- to know the anthropometric face study;
- to formulate optimal conclusions in diagnosing children with dento-maxillary abnormalities;
- to apply various ways of psychological and moral support of children with dento-maxillary abnormalities in the period of orthodontic treatment;
- to be able to perform the exobuccal and endobuccal clinical examination in patients with sagittal malocclusion in children of different ages;
- to be able to take impressions of both jaws with alginate masses, study and work plaster models, basing them and knowing the objectives of the treatment plan;
- to know modern impressions materials and adhesive tapes for making orthodontic appliances according to the clinical case and the age of the patient;
- to formulate optimal decisions in providing orthodontic assistance to children with sagittal malocclusions;
- to know various ways of psychological and moral support of children in the treatment of dento-maxillary anomalies.

### **It is welcome:**

- Planning their own activity;
- Continuous improvement;
- Multidisciplinary teamwork;
- Interactive communication;
- Respecting the rights of the child patient;
- Supervision of the child's health.



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### VIII. THE STUDENT'S INDIVIDUAL WORK

Nr.	The expected product	Implementation Strategies	Evaluation criteria's	Deadline
1.	Working with books and ICT	Work systematically in the library and mediate. Exploring current electronic sources on the subject.	1. Quality of formed judgments, logical thinking, flexibility. 2. The quality of the systematization of the informational material obtained through its own activity.	During the semester
2.	Report	Analysis of relevant sources on the topic of the paper. Analysis, systematization and synthesis of information on the proposed theme. Compilation of the report in accordance with the requirements in force and presentation to the chair.	1. The quality of systematization and analysis of the informational material obtained through its own activity. 2. Concordance of information with the proposed theme.	During the semester
3.	Apply different learning techniques		Volume of work, degree of insight into different subjects, practical skills, creativity, demonstration, personal attitude formation	During the semester



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### **IX. METHODOLOGICAL SUGGESTIONS FOR TEACHING-LEARNING EVALUATION**

#### **• *Teaching and learning methods used***

- Case Study;
- Working in small groups;
- Individual work;
- Clinical observation;
- Filling out the medical documentation;
- Plenary debate;
- Synthesis;
- Solving the problem in the group;
- Demonstration;
- Themes for the group;
- Discussions in small groups;
- Presentation of audio-visual materials.

#### ***Recommended learning methods***

- Absorption
  - Analysis
  - Comparison
  - Modeling
  - High fidelity simulation method
- 
- ***Applied didactic strategies / technologies (discipline specific);***  
„Group Interview "; "Case Study".
  - ***Evaluation methods.***
    - ✓ **Current:** frontal and / or individual control through:
      - assessment of basic practical skills,
      - case presentations,
      - educational software.
    - ✓ **Final:** Differentiated colloquium



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### The way to round up the grades at the evaluation levels

The weighted sum of the notes from the current assessments and the final examination	Final note	Equivalent ECTS
1,00-3,00	2	F
3,01-4,99	4	FX
5,00	5	E
5,01-5,50	5,5	
5,51-6,0	6	
6,01-6,50	6,5	D
6,51-7,00	7	
7,01-7,50	7,5	
7,51-8,00	8	C
8,01-8,50	8,5	
8,51-8,00	9	
9,01-9,50	9,5	B
9,51-10,0	10	

**Mark:** Not presenting of the exam without good reason is recorded as "absent" and is equivalent to the 0 (zero). The student is entitled to 2 repeated claims of the unsuccessful exam.

The students' assessment will be completed with the final mark consisting of: practical test (coefficient 0,5) and oral test (coefficient 0,5).

The practical test will be calculated according to the achievement of the scale (the volume of the practical manuscripts) and the quality of practical exercises expressed in grades 0 to 10.

The oral test is evaluated with grades from 0 to 10 and will be calculated from the notes of the members of the Examination Board. The final mark obtained will be expressed in two decimal digits and will be transferred to the notes book.



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7. Trifan V., Godoroja P. *Ortodonție*. Compendiu. 2009.
8. Колесов А.А. *Стоматология детского возраста*. Москва, Медицина, 1991.

#### **B. Additional:**

1. Хоменко Л.А. *Терапевтическая стоматология детского возраста*. Киев. 2007.
2. McDonald, Avery, Dean. *Dentistry for the child and adolescent*. Mosby, 2004.
3. Spinei A. *Caria dentară la copiii cu dizabilități*. Ch.: Tipografia „Print-Caro”, 2016. 275 p.