

DANYLO HALYTSKY LVIV NATIONAL MEDICAL UNIVERSITY

Pediatric Dentistry Department

Methodological Recommendations

for self-work on the subject

PEDIATRIC THERAPEUTIC DENTISTRY

for preparing of specialists of the second (master) level of higher education

4 th year, 7 th semester

specialty 221 "Dentistry"

Lviv 2021

Composed by:

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Considered and approved on meeting of Pediatric Dentistry Department (protocol № 7, from 9 of April 2021) and Profiled Methodical Commission of Dental faculty (protocol № 2, from 29 of April 2021)

Methodical recommendations were discussed, re-approved and confirmed at the meeting of the Department of Pediatric Dentistry of Lviv National Medical University named after Danylo Halytsky

Protocol № 1 from « 31 » _____ August _____ 2021

Protocol № from « » _____ 202

Protocol № from « » _____ 202

Protocol № from « » _____ 202

Protocol № from « » _____ 202

Responsible for the issue

Vice-Rector for Academic Affairs, Professor M.R. Grzegotskyy

The structure of the discipline

(2 credits, 60 hours: 6 hours of lectures, 30 hours of practical classes, 24 hours of SW)

№	Theme	Hours
1	Methods of preparation of temporary teeth in children. The choice of filling materials depending on the chosen method of preparation.	3
2	Glass-ionomer cements for restorations of temporary and permanent teeth. Indications and contraindications for use.	3
3	Differential diagnosis of non-carious dental lesions in children. Methods of prevention of non-carious lesions.	3
4	Differential diagnosis of pulpitis of temporary and permanent teeth. Create a scheme of differential diagnosis.	3
5	Materials and methods of root canal obturation temporary and permanent teeth in children.	3
6	Aesthetic restoration of permanent teeth in children with the use of modern composite materials. Optical properties of permanent teeth in children and adolescents.	3
7	Restoration of temporary teeth in children using standard metal crowns and celluloid caps.	3
8	The use of modern endodontic techniques in the treatment of caries complications in temporary and permanent teeth in children. Machine and manual techniques, ultrasonic and laser treatment of root canals.	3
	Total	24

Individual work (preparation for practical classes (theoretical of practical skills, abilities, 1-10 topics)).

Purpose: to briefly write down each topic of the practical lesson. Master the key issues of the code topic, initial and final level of knowledge.

Topic 1. Methods of preparation of temporary teeth in children. The choice of filling materials depending on the chosen method of preparation.

Tasks for independent work:

- ▶ shortly write down the main issues of the topic
- ▶ know the anatomical features of the structure of temporary teeth
- ▶ know the features of the location of the pulp cavities in different groups of temporary teeth
- ▶ know the principles of preparation of carious cavities according to Black
- ▶ know the principles of free design of preparation of carious cavities
- ▶ know the principles of preparation of carious cavities in temporary teeth with enamel caries and secondary dentin caries

- ▶ understand the principles of preparation of carious cavities in temporary teeth with deep dentin caries
- ▶ be able to justify the choice of material for carious cavity filling depending on the method of preparation
- ▶ be able to justify the feasibility of using therapeutic and insulating pads in the treatment of teeth with deep carious cavities

Topic 2. Glass-ionomer cements for restorations of temporary and permanent teeth. Indications and contraindications for use.

Tasks for independent work:

- ▶ shortly write down the main issues of the topic
- ▶ know the classification of glass-ionomer cements
- ▶ know the properties of different types of glass-ionomer cements
- ▶ be able to justify the use of glass-ionomer cements depending on the type of carious cavity in temporary teeth
- ▶ be able to justify the feasibility of using glass-ionomer cements depending on the type of carious cavity in permanent teeth
- ▶ advantages and disadvantages of glass-ionomer cements

Topic 3. Differential diagnosis of non-carious dental lesions in children. Methods of prevention of non-carious lesions.

Tasks for independent work:

- ▶ write down the main issues of the topic
- ▶ know the stages and timing of the development of temporary teeth in children
- ▶ know the stages and timing of the development of permanent teeth in children
- ▶ understand the factors that lead to disorders of development and mineralization of hard tissues before teething
- ▶ know the factors that lead to damage to the hard tissues of the teeth after teething
- ▶ know the classification of non-carious lesions of the teeth that occur during the development of teeth
- ▶ know the classification of non-carious lesions of the teeth that occur after their eruption
- ▶ know the main criteria by which the differential diagnosis of non-carious and carious lesions of the teeth

- ▶ make a table of differential diagnosis of non-carious lesions of the teeth
- ▶ compile a table of differential diagnosis of non-carious lesions of teeth and dental caries
- ▶ understand the principles and methods of prevention of non-carious lesions of the teeth

Topic 4. Differential diagnosis of pulpitis of temporary and permanent teeth. Create a scheme of differential diagnosis.

Tasks for independent work:

- ▶ shortly write down the main issues of the topic
- ▶ know the anatomical features of the structure of the crown and pulp cavity in temporary and permanent teeth depending on the group affiliation of the tooth
- ▶ know the features of the anatomical structure of the roots and the location of the root canals of temporary and permanent teeth depending on the group affiliation of the tooth
- ▶ know the clinical signs of acute dental pulpitis
- ▶ know the clinical signs of chronic dental pulpitis
- ▶ what additional examination methods are used to diagnose acute and chronic forms of dental pulpitis
- ▶ to create a scheme of differential diagnosis of acute forms of dental pulpitis
- ▶ to create a scheme of differential diagnosis of chronic forms of dental pulpitis
- ▶ what is the importance of X-ray examination in the diagnosis of various forms of dental pulpitis

Topic 5. Materials and methods of root canal obstruction of temporary and permanent teeth in children.

Tasks for independent work:

- ▶ write down the main issues of the topic
- ▶ know the stages of development of the roots of temporary teeth
- ▶ know the classification and basic properties of materials for obturation of root canals of temporary teeth
- ▶ know the methods of obturation of the root canals of temporary teeth
- ▶ know the stages of development of the roots of permanent teeth
- ▶ know the stages of formation of the apex of the roots of permanent teeth
- ▶ understand the principles of choosing a method of treatment of permanent teeth with incomplete root formation depending on the stage of their formation

- ▶ definition and understanding of the concept of apexification of the roots of permanent teeth
- ▶ describe the existing methods of apexification of the roots of permanent teeth (methods of remote and simultaneous apexification)
- ▶ understand the advantages and disadvantages of each of the described techniques
- ▶ definition and understanding of the concept of artificial apical barrier, types and terms of formation of artificial apical barrier
- ▶ describe modern materials for creating an apical barrier during the apexification of the roots of permanent teeth, their properties and features of application
- ▶ know the methods of obturation of root canals of permanent teeth with complete root formation
- ▶ know the basic properties of materials for obturation of root canals of permanent teeth with completed formation of the apex of the root
- ▶ principles and terms of X-ray observation after endodontic treatment of root canals of temporary and permanent teeth

Topic 6. Aesthetic restoration of permanent teeth in children with the use of modern composite materials. Optical properties of permanent teeth in children and adolescents.

Tasks for independent work:

- ▶ write down the main issues of the topic
- ▶ know the anatomical features of the crown and the location of the pulp cavity in permanent teeth in children and adolescents depending on the group affiliation of the tooth
- ▶ know the features and optical properties of enamel and dentin of permanent teeth in children and adolescents
- ▶ know the indications and contraindications to the implementation of aesthetic restorations of permanent teeth in children and adolescents
- ▶ know the modern classification of composite materials
- ▶ know the basic properties of different groups of composite materials, their advantages and disadvantages
- ▶ know modern methods of restoration of permanent teeth using composite materials
- ▶ features of aesthetic restorations of permanent teeth with non-carious lesions
- ▶ preparation of permanent teeth with non-carious lesions for aesthetic restorations
- ▶ modern tools for performing aesthetic restorations of permanent teeth

Topic 7. Restoration of temporary teeth in children using standard metal crowns and celluloid caps.

Tasks for independent work:

- ▶ write down the main issues of the topic
- ▶ know the features of the anatomical structure of temporary teeth
- ▶ know the indications for the use of standard metal crowns in the treatment and restoration of temporary teeth
- ▶ types of standard metal crowns for restoration of temporary teeth
- ▶ features of preparation and preparation of temporary teeth for standard metal crowns
- ▶ methods of tooth separation in preparation for standard metal crowns
- ▶ contraindications to the use of standard metal crowns in the restoration of temporary teeth
- ▶ materials for fixing standard metal crowns when restoring temporary teeth
- ▶ types of celluloid caps and principles of their use
- ▶ ways to restore temporary teeth using celluloid caps
- ▶ indications and contraindications to the use of celluloid caps in the restoration of temporary teeth
- ▶ materials for restoration of temporary teeth using celluloid caps

Topic 8. The use of modern endodontic techniques in the treatment of complications of caries in temporary and permanent teeth in children. Machine and manual techniques, ultrasonic and laser treatment of root canals.

Tasks for independent work:

- ▶ write down the main provisions of the topic
- ▶ know the techniques of manual and machine tools of root canals
- ▶ which methods of instrumental treatment of root canals should be preferred in the treatment of temporary teeth
- ▶ which methods of instrumental treatment of root canals should be preferred in the treatment of permanent teeth
- ▶ what anatomical features of temporary teeth should be taken into account during machining of their root canals
- ▶ main stages of manual processing of root canals using the technique of "Step-back"
- ▶ the main stages of manual processing of root canals using the technique of balanced forces
- ▶ main stages of root canal treatment using the "Crown-down" technique

- ▶ tools for machine and manual processing of root canals, basic principles of technique selection
- ▶ basic and additional methods of disinfection of the lumen of the root canal
- ▶ ultrasound for additional disinfection of the lumen of the root canal
- ▶ properties and possibilities of ultrasonic treatment of root canals
- ▶ types and modern methods of using lasers for treatment and additional disinfection of the root canal lumen

List of basic literature:

1. Therapeutic dentistry of children's age. Vol.1. "Dental caries and its complications" / L.O. Khomenko, Yu.B. Tchaikovsky, N.I. Smolyar [etc.]; for order. L.O. Khomenko - Book-plus, 2016. - 432p
2. Therapeutic dentistry of children: textbook Volume 1. / LA Khomenko, [and others]; ed. L.A. Khomenko. - K .: Kniga-plus, 2018 .-- 395 p.

List of additional literature:

1. Baranskaya-Gakhovskaya M. Endodontics of adolescence and adulthood. - Lviv: GalDent, 2011 .- 496p.
2. Protocols of medical care in the specialties "orthopedic dentistry", "therapeutic dentistry", "surgical dentistry", "orthodontics", "pediatric therapeutic dentistry", "pediatric surgical dentistry": Normative production and practical edition. - Kyiv: Institute of Medical Statistics; IEC "Medinform", 2007. - 236 p.
3. Kazakova RV, Melnik VS, Gorzov LF P 84 Propaedeutics of pediatric therapeutic dentistry: A textbook. / Ed. prof. R.V. Cossack. - Uzhhorod: Uzhhorod National University Publishing House "Hoverla", 2018. - 128 p.
4. Disorders of development and formation of teeth: textbook. way. for students, interns, dentists / EV Bezvushko, MM Ugrin, ZR Popovich; rec .: LF Kaskova, OV Money. - Lviv: GalDent, 2007. - 72 p.
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7. Pediatric dentistry: per. from English. / Ed. R. Welbury, M. Daggal, M.-T. Hozl. - M: GEOTAR-Media, 2014 .-- 454 p.

8. Ivanov V.S., Vinnichenko Yu.A., Ivanova E.V. Inflammation of the pulp of the tooth. - M.: MIA, 2003 .-- 264p.
9. Nikolaev A.I., Tsepov L.M. Practical therapeutic dentistry: Textbook / A.I. Nikolaev, L.M. Tsepov. - 8th ed. - M.: MED press-inform, 2008.- 960 p.
10. Nikolishin A.K. Modern endodontics of a practical doctor. - Poltava, 2003 .—208.
11. Popruzhenko T.V. Prevention of major dental diseases / T.V. Popruzhenko, T.N. Terekhova. - M.: MED pressinform, 2009 .-- 464 p.
12. Ralph E. McDonald, David R. Avery Dentistry of children and adolescents. M.: Medical Information Agency, 2003.- 766 p.
13. Stephen Cohen, Richard Burns Endodontics. - M .: STBOOK, 2007 .-- 502c.
14. Handbook of pediatric dentistry (Edited by AC Cameron, RP Widmer / Translated from English. Edited by T.F. Vinogradova, N.V. Ginali, O.Z. Topolnitskiy - M .: MEDpress-inform, 2003. – 288 p.
15. Khomenko L.A., Ostapko E.I., Bidenko N.V. Clinical and X-ray diagnostics of dental and periodontal diseases in children and adolescents. - Kiev: "Book Plus", 2004. - 200 p.
16. Khomenko L.A., Bidenko N.V. Practical endodontics tools, materials and methods.- Kiev, Book plus, 2002.- 216 p.
17. Khomenko L.A., Savichuk A.V., Bidenko N.V., Ostapko E.I. and other Prevention of dental diseases: textbook. allowance. - Part 1. –K.: "Book Plus", 2007. –127 p.
18. Khomenko L.A., Savichuk O.V., Bidenko N.V., Ostapko E.I. and other Prevention of dental diseases: textbook. allowance. - Part 2. –K.: "Book Plus", 2008. –132 p.