

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

**BANK OF ASSESSMENT TOOLS FOR ELECTIVE DISCIPLINE:
"FEATURES OF THE COURSE AND TREATMENT OF CARIES AND ITS
COMPLICATIONS IN CHILDREN"**

Training program (specialty): 31.05.03. "Dentistry"
code, name

Department: Pediatric dentistry

Mode of study *full-time*

Nizhniy Novgorod
2021

1. Bank of assessment tools for the current monitoring of academic performance, mid-term assessment of students in the discipline / practice

This Bank of Assessment Tools (BAT) for the discipline "Features of the course and treatment of caries and its complications in children" is an integral appendix to the working program of the discipline "Features of the course and treatment of caries and its complications in children". All the details of the approval submitted in the WPD for this discipline apply to this BAT.

2. List of assessment tools

The following assessment tools are used to determine the quality of mastering the academic material by students in the discipline/ practice:

No.	Assessment tool	Brief description of the assessment tool	Presentation of the assessment tool in the BAT
1	Test №1 Test №2 Test №3 Test №4	A system of standardized tasks that allows you to automate the procedure of measuring the level of knowledge and skills of a student	Bank of test tasks
2	Situational and clinical Task	A method of control that allows you to assess the criticality of thinking and the degree of the material comprehension, the ability to apply theoretical knowledge in practice.	Bank of tasks
3	Control work	A tool of checking the ability to apply acquired knowledge for solving problems of a certain type by topic or section	Set of control tasks in variants
4	Abstract	The product of the student's independent work, which is a summary in writing of the results of the theoretical analysis of a certain scientific (educational and research) topic, where the author reveals the essence of the problem under study, provides various points of view, as well as his /her own views on it.	List of abstract topics

3. A list of competencies indicating the stages of their formation in the process of mastering the educational program and the types of evaluation tools

Code and formulation of competence*	Stage of competence formation	Controlled sections of the discipline	Assessment tools
<i>UC-1</i> Ability to think abstractly, analyse, synthesise	Current	Section 1 Prevention of caries; non-carious lesions of the hard tissues of the teeth, periodontal diseases and oral mucosa in children of different ages. Section 2 Clinic, diagnosis of caries;	Control work Abstract <i>Credit</i>

<i>PC-1</i> Ability to diagnose dental diseases and pathological conditions of patients	Current	<p>pulpitis, periodontitis, non-carious lesions of hard tissues of teeth in children of different ages.</p> <p>Section 3 Methods of treatment of diseases of hard tissues of teeth in patients of different ages</p> <p>Section 4 Endodontic treatment of pulp and periodontal diseases in patients of different ages</p> <p>Section 5 Features of the course and treatment of periodontal diseases in patients of different ages</p> <p>Section 6 Anesthesia in the practice of a pediatric dentist.</p> <p>Section 7 Trauma of the teeth</p>	Test №1
<i>PC-2</i> Ability to carry out measures to prevent dental diseases	Current		Situational and clinical Task
<i>PC-5</i> Application of the basic principles of the organization of dental care in medical institutions and their structural subdivisions.	Current		Test №2
<i>PC-6</i> Diagnosis of dental diseases and pathological conditions of patients.	Current		Situational and clinical Task
<i>PC-8</i> Conducting a medical examination	Current		Test №3
<i>PC-9</i> Treating patients with dental problems	Current		Situational and clinical Task
<i>PC-12</i> Participate in research and application in health and medical sciences.	Current		Test №4

* - not provided for postgraduate programs

4. The content of the assessment tools of current control

Current control is carried out by the discipline teacher when conducting classes in the form of: assessment tool 1, assessment tool 2, etc.

Assessment tools for current control.

Assessment tool 1

1. Test

2. Clinical task

Assessment tool 2

1. Control work
2. Situational task

Assessment tool 3

1. Abstract
2. Questions for credit

4.1. Tasks for the assessment of competence "UC-1, PC-1, PC-2, PC-5, PC-6, PC-8, PC-9, PC-12" (specify the competence code):

Clinical Task 1.

Parents with a 4-year-old child come to a dental clinic. Examination of the oral cavity of the girl revealed multiple carious cavities on teeth (52,51,61,62,63,55,65,75,85,84): dentin is pigmented, soft when probing, probing cavities is painless, cavity edges are uneven, enamel is dull and brittle.

Vestibular surfaces of upper jaw teeth and lingual surfaces of lower jaw teeth are covered with soft yellow plaque, which is easily removed from the surface of the teeth. While collecting the anamnesis, it was revealed that the girl's mother worked in a paint store during pregnancy, the baby was born prematurely and still rarely brushes her teeth.

- 1) State the diagnosis,
- 2) Make a plan for local and general treatment,
- 3) Give recommendations on the choice of oral hygiene items and products.

Clinical Task 2.

A mother with a 13-year-old boy came to a dental clinic for oral health care. The child had never had his teeth treated before.

Dental formula:

		C													C			C
	17	16	15	14	13	12	11		21	22	23	24	25	26	27			
	47	46	45	44	43	42	41		31	32	33	34	35	36	37			
																C		

Examination of the oral cavity on the mesio-central surface of tooth 46, filled with pigmented dentin, after preparation reveals a communication with the tooth cavity, probing is sharply painful at one point, pulp is red, bleeding. There is multiple soft plaque on the upper and lower jaw teeth. The boy has chronic allergic rhinitis.

- 1) State the diagnosis,
- 2) Features of local anesthesia, choice of anesthetic,
- 3) Choice of treatment method for the 46th tooth,
- 4) Make a plan for local and general treatment,
- 5) Recommend the choice of items and means of hygiene.

Clinical Task 3.

A 10-year-old child. Received a blow to the chin while playing hockey. A week had passed since the injury. The doctor diagnosed: fracture of both condylar processes of the lower jaw.

1. Specify the peculiarities of condylar fractures in children.
2. Draw up a treatment plan and prognosis for the injury.

Clinical Task 4.

A 10-year-old child. Painless swelling first appeared in the parotid-mandibular area on the right side. On palpation, the infiltrate in the parotid-mandibular region was dense, limited, with clear contours, painless. Freely transparent saliva exudes from the right parotid duct.

1. What examination methods should be performed?

2. State the Task 4 most likely diagnosis.

Situational Task №1

A 9-year-old child had chalky spots with indistinct borders on the vestibular surface in the cervical area 1.2, 1.1, 2.1, 2.2 during a preventive examination at school. Enamel surface matt, smooth, no reaction to temperature stimuli. KPU + kp = 4, hygiene index = 1.8.



Questions:

1. Make a preliminary diagnosis of pathology 1.1, 1.2, 2.1, 2.2.
2. How do you confirm the diagnosis?
3. Additional methods of examination and treatment plan for the child.
4. Choose a method of treatment for this pathology.

Control work for the assessment of competence "UC-1, PC-1, PC-2, PC-5, PC-6, PC-8, PC-9, PC-12" (*specify the competence code*):

Variant 1

1. Features of the course of caries of temporary teeth in children. Diagnosis, differential diagnosis, choice of method of treatment.
2. Errors and complications in the diagnosis and treatment of caries of temporary and permanent teeth in children. Methods of their prevention and elimination.

Variant 2

1. Modern methods of treatment of caries of temporary and permanent teeth in children. The choice of filling material.
2. Anatomical and physiological features of the structure of the pulp of temporary and permanent teeth in children with unformed and formed roots.

Variant 3

1. Features of local anesthesia in pediatric dentistry in outpatient surgical interventions.
2. Anatomical and physiological features of the structure of the maxillofacial region in children.

Test №1

1. Preschool and school-age children are more likely to develop
 - a) catarrhal gingivitis
 - b) hypertrophic gingivitis
 - c) ulcerative and necrotic gingivitis
 - d) paradontitis
 - e) paradontosis

2. Canals of temporarily formed single-rooted teeth with pulpitis should preferably be filled:

- 1) Resorcin-formalin paste
- 2) Oil based zinc oxide paste
- 3) Phosphate cement
- 4) Gutta-percha post
- 5) Silver posts

Test №2

1. An index is used to assess oral hygiene in children under 5-6 years of age:

- 1). CPITN
- 2). Green-Vermillion
- 3). PMA
- 4). Fedorov-Volodkina

2. Teeth 55, 65, 75, 85 erupt at:

- 1). 9-10 months
- 2). 10-12 months
- 3). 12-18 months
- 4). 18-20 months
- 5). 20-30 months

3. Prevention of dental caries in children includes:

- 1). teaching rational oral hygiene
- 2). supervised tooth brushing
- 3). remineralizing therapy
- 4). fissure sealing
- 5). all of the above

4.3. Abstract topic for the assessment of competence "UC-1, PC-1, PC-2, PC-5, PC-6, PC-8, PC-9, PC-12" (specify the competence code):

ABSTRACT TOPICS

1. Caries. Clinic, diagnosis. Treatment of initial forms of caries of temporary and permanent teeth and criteria of its effectiveness.
2. Dissection of carious cavities of different localization. The choice of filling materials.
3. The pulpitis of temporary teeth in children. Etiology, pathogenesis, diagnosis, differential diagnosis. Features of the clinic.
4. Treatment of pulpitis of temporary teeth in children.
5. Pulpitis of permanent teeth in children with formed and unformed roots.
6. Treatment of pulpitis of permanent teeth in children.
7. Errors and complications in the treatment of pulpitis. Criteria for the effectiveness of treatment.
8. Periodontitis of temporary teeth in children. Clinic, diagnosis, choice of method of treatment.
9. Periodontitis of permanent teeth with formed and unformed roots. Treatment. Choice of materials for root canal filling.
10. Malformations of the hard tissues of the tooth. Modern methods of treatment.
11. dental trauma: contusions, dislocations, fractures. Etiopathogenesis, clinic, differential diagnosis. 12.
12. New methods of treatment of dental trauma in children. Errors, complications, prognosis.

4.4. Assessment tools for the credit

Questions for credit assessment of competence "UC-1, PC-1, PC-2, PC-5, PC-6, PC-8, PC-9, PC-12" :

1. Development, eruption and resorption of the roots of temporary teeth. The influence of the general state of the body on these processes.
2. The prevalence and intensity of dental caries in children of different ages. Influence of external and internal factors on the course of caries.
3. Features of clinical course of caries of temporary teeth and permanent with unformed roots. Differential diagnostics, methods of treatment. Indexes of caries intensity and their definition.
4. Methods of prevention of dental caries in children.
5. Methods of treatment of caries of different localization of temporary and permanent teeth. Remineralizing therapy.
6. Peculiarities of preparation of carious cavities in temporary and permanent non-formed teeth in children of different ages.
7. Peculiarities of adhesive technologies, self-etching adhesive systems. The choice of restorative material in pediatric practice.
8. Pulpitis in children. Features of the clinical course, differential diagnosis, principles of treatment.
9. The choice and rationale for the treatment of pulpitis in children.
10. Possibility and expediency of preservation of the pulp or its part in case of inflammation in temporary and permanent teeth in different age periods.
11. Pulpitis in children. Indications for surgical method of treatment. Methods of treatment.
12. Pulpitis in children. Features of the clinical course of acute pulpitis. Diagnosis, differential diagnosis. Treatment.
13. Chronic forms of periodontitis. Influence on the process of formation of permanent teeth and resorption of the roots of temporary teeth.
14. Clinical and radiological picture of chronic periodontitis in the acute stage in children. Differential diagnosis. Treatment.
15. Chronic granulomatous periodontitis in children. Clinic, diagnosis, treatment.
16. Methods of treatment of chronic periodontitis of temporary teeth in children.
17. Indications for removal of teeth with chronic periodontitis in children.
18. Treatment features of chronic periodontitis of permanent teeth with unformed roots.
19. Medical tactics in permanent tooth trauma in children with unformed and formed roots.
20. And then the tasks are specified for all competencies provided for this discipline.
21. Features of the course of caries of temporary teeth in children. Diagnosis, differential diagnosis, choice of method of treatment.
22. Errors and complications in the diagnosis and treatment of caries of temporary and permanent teeth in children. Methods of their prevention and elimination.
23. Modern methods of treatment of caries of temporary and permanent teeth in children. The choice of filling material.
24. Anatomical and physiological features of the structure of the pulp of temporary and permanent teeth in children with unformed and formed roots. 4.
25. Features of local anesthesia in pediatric dentistry in outpatient surgical interventions.
26. Anatomical and physiological features of the structure of the maxillofacial region in children.

Clinical Case Study No. 1

Parents with a 4-year-old child come to a dental clinic. Examination of the oral cavity of the girl revealed multiple carious cavities on teeth (52,51,61,62,63,55,65,75,85,84): dentin is pigmented, soft when probing, probing cavities is painless, cavity edges are uneven, enamel is dull and brittle. Vestibular surfaces of upper jaw teeth and lingual surfaces of lower jaw teeth are covered with soft

yellow plaque, which is easily removed from the surface of the teeth. While collecting the anamnesis, it was revealed that the girl's mother worked in a paint store during pregnancy, the baby was born prematurely and still rarely brushes her teeth.

- 1) State the diagnosis,
- 2) Make a plan for local and general treatment,
- 3) Give recommendations on the choice of oral hygiene items and products.

Situation task № 1

A patient, 8.5 years old, applied to a dental clinic. 8.5 - deep cavity, thin white scars on the gum mucosa in the projection area of the roots. On X-ray: foci of bone destruction in the area of root bifurcation, vertical resorption of roots 8.5.



Questions:

1. Make a preliminary diagnosis 8.5.
2. Make a differential diagnosis.
3. What anesthetics, and in what amount, can be used in the treatment of a patient of this age.
4. Your tactics for treating 8.5 (in stages).

Situational task No. 2

A 6.5 year old child has been sick for 3 days. General state of moderate severity, body temperature 38.6 C. The child refuses to eat, sleep badly, is agitated. Skin was pale. Oral cavity: mucous membrane of gingival margin, alveolar process and transitional fold in the area of 6.5, 6.4 is edematous, with inflammatory infiltration.

Blood test: Hb 92 g/l, er. 3 - 1012/l, leukocytes 12 -109 /l, neutrophils: stabular - 8, juvenile forms - 1, eosinophils - 0, lymphocytes 52%, monocytes - 0, SLE 35 mm/hr. Urinalysis shows traces of protein.

On the vestibular surfaces 5.2, 5.1, 6.1, 6.2 - chalky spots, with indistinct contours, enamel dull, enamel surface rough. In the cervical area of all groups of teeth soft plaque is present. The IG according to Fyodorov-Volodkina 3.8 points.





Questions:

1. justify a possible clinical diagnosis.
2. Prognosis of the disease.
3. Physician tactics for treatment.
4. Make differential diagnosis of pathology 5.2, 5.1, 6.1, 6.2.
5. Your treatment tactics for 5.2, 5.1, 6.1, 6.2.

5. The content of the assessment tools of mid-term assessment

Mid-term assessment is carried out in the form of a credit (leave the necessary).

The content of the assessment tool questions.

5.1 The list of control tasks and other materials necessary for the assessment of knowledge, skills and work experience.

5.1.1. Questions for the credit in the discipline *"FEATURES OF THE COURSE AND TREATMENT OF CARIES AND ITS COMPLICATIONS IN CHILDREN"*

Question	Competence code (according to the WPD)
1.The prevalence and intensity of dental caries in children of different ages. Influence of external and internal factors on the course of caries.	UC-1, PC-1, PC-2, PC-5, PC-6, PC-8, PC-9, PC-12
2.Features of clinical course of caries of temporary teeth and permanent with unformed roots. Differential diagnostics, methods of treatment. Indexes of caries intensity and their definition.	UC-1, PC-1, PC-2, PC-5, PC-6, PC-8, PC-9, PC-12
3.Methods of prevention of dental caries in children.	UC-1, PC-1, PC-2, PC-5, PC-6, PC-8, PC-9, PC-12
4.Methods of treatment of caries of different localization of temporary and permanent teeth. Remineralizing therapy.	UC-1, PC-1, PC-2, PC-5, PC-6, PC-8, PC-9, PC-12
6.Peculiarities of treatment of carious cavities in temporary and permanent non-formed teeth in children of different ages. The choice of restorative material in pediatric practice.	UC-1, PC-1, PC-2, PC-5, PC-6, PC-8, PC-9, PC-12
7. Pulpitis in children. Features of the clinical course, differential diagnosis, principles of treatment.	UC-1, PC-1, PC-2, PC-5, PC-6, PC-8, PC-9, PC-12
8. Possibility and expediency of preservation of the pulp or its part in case of inflammation in temporary and permanent teeth in different age periods.	UC-1, PC-1, PC-2, PC-5, PC-6, PC-8, PC-9, PC-12
9. Pulpitis in children. Indications for surgical method of treatment. Methods of treatment.	UC-1, PC-1, PC-2, PC-5, PC-6, PC-8, PC-9, PC-12

10. Pulpitis in children. Features of the clinical course of acute pulpitis. Diagnosis, differential diagnosis. Treatment.	UC-1, PC-1, PC-2, PC-5, PC-6, PC-8, PC-9, PC-12
11. Chronic forms of periodontitis. Influence on the process of formation of permanent teeth and resorption of the roots of temporary teeth.	UC-1, PC-1, PC-2, PC-5, PC-6, PC-8, PC-9, PC-12
12. Clinical and radiological picture of chronic periodontitis in the acute stage in children. Differential diagnosis. Treatment.	UC-1, PC-1, PC-2, PC-5, PC-6, PC-8, PC-9, PC-12
13. Chronic granulomatous periodontitis in children. Clinic, diagnosis, treatment.	UC-1, PC-1, PC-2, PC-5, PC-6, PC-8, PC-9, PC-12
14. Methods of treatment of chronic periodontitis of temporary teeth in children.	UC-1, PC-1, PC-2, PC-5, PC-6, PC-8, PC-9, PC-12
15. Treatment features of chronic periodontitis of permanent teeth with unformed roots	UC-1, PC-1, PC-2, PC-5, PC-6, PC-8, PC-9, PC-12
16. Medical tactics in permanent tooth trauma in children with unformed and formed roots.	UC-1, PC-1, PC-2, PC-5, PC-6, PC-8, PC-9, PC-12

6. Criteria for evaluating learning outcomes

For the credit

Learning outcomes	Evaluation criteria	
	Not passed	Passed
Completeness of knowledge	The level of knowledge is below the minimum requirements. There were bad mistakes.	The level of knowledge in the volume corresponding to the training program. Minor mistakes may be made
Availability of skills	Basic skills are not demonstrated when solving standard tasks. There were bad mistakes.	Basic skills are demonstrated. Typical tasks have been solved, all tasks have been completed. Minor mistakes may be made.
Availability of skills (possession of experience)	Basic skills are not demonstrated when solving standard tasks. There were bad mistakes.	Basic skills in solving standard tasks are demonstrated. Minor mistakes may be made.
Motivation (personal attitude)	Educational activity and motivation are poorly expressed, there is no willingness to solve the tasks qualitatively	Educational activity and motivation are manifested, readiness to perform assigned tasks is demonstrated.
Characteristics of competence formation*	The competence is not fully formed. The available knowledge and skills are not enough to solve practical (professional) tasks. Repeated training is required	The competence developed meets the requirements. The available knowledge, skills and motivation are generally sufficient to solve practical (professional) tasks.
The level of competence formation*	Low	Medium/High

* - not provided for postgraduate programs

For testing:

Mark "5" (Excellent) - points (100-90%)

Mark "4" (Good) - points (89-80%)

Mark "3" (Satisfactory) - points (79-70%)

Less than 70% – Unsatisfactory – Mark "2"

Developer(s):

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