

*Federal State Autonomous Educational Institution of Higher Education
"Peoples' Friendship University of Russia"*

Medicine Institute

PROGRAM OF MANUFACTURING PRARCTICE

Name of practice

"Dental assistant (peadiatric)"

**Recommended for the direction of training / specialty
31.05.03 Dentistry**

The focus of the program (profile)

Dentistry

Graduate Qualifications

Doctor of Dentistry

PROGRAM OF MANUFACTURING PRARCTICE

1. The aim of internship practice

The aims of internship practice "Dental assistant (peadiatric)" are the skills consolidation and increased insight into of student's theoretical training in the fields of prevention, diagnosis and treatment of teeth hard tissue diseases and their complications, dental trauma, the oral mucous membrane diseases, and periodontium diseases in children and adolescents; the practical skills acquisition and competencies in the field of professional activity.

2. The tasks of internship practice

The tasks of internship practice "Dental assistant (peadiatric)" are:

- mastering the standards and requirements for the paediatric dental office organisation;
- mastering the basic principles of aseptic in paediatric dentistry;
- mastering by students of the work organisation principles of medical personnel in out-patient and preventive clinics of children's profile, the definition of functional duties and the optimal algorithm of their implementation;
- mastering by students the fundamentals of examination, diagnosis and conservative treatment of teeth hard tissues diseases using modern methods in paediatric dentistry;
- formation of students' medical thinking and behaviour, providing the solution of professional tasks related to paediatric dentistry;
- to master the proper management of medical records;
- to master the principles of professional ethics and deontology in the work of a paediatric dentist;
- to collect, process and systematise scientific and technical information on the task.

3. Internship place in the structure of the OOP HPE

The practice is the mandatory part of the basic educational program of dentists' training and is a form of educational process organisation, directly focused on the professional and practical training of the student.

To pass the internship practice "Dental assistant (peadiatric)" a student must have full knowledge in the field of anatomy, physiology, histology, pathological anatomy, pathological physiology,

pharmacology, Paediatrics, propaedeutics of dental diseases, prevention of dental diseases, therapeutic dentistry.

4. The internship practice realisation forms

Stationary.

Clinical with collaborative clinical reviews.

5. Time and place of the practice execution

Internship practice "Dental assistant (paediatric)" is executed at the end of the tenth semester (January) in the third-party paediatric medical structures with the necessary specialists, materials and technical potential during 12 working days (2 weeks).

6. The student competencies, formed as a result of practical training

As a result of this practical training, the student must acquire the following practical skills, abilities, general professional competences (GPC) and professional competence (PC):

GPC-6, GPC-9, GPC-11;

PC-1, PC-2, PC-5, PC-6, PC-8, PC-9; PC-10; PC-14; PC-15; PC-17; PC-18; PC-19.

The student needs to **KNOW**:

- theoretical foundations of the structure, condition and functioning of the dental system in childhood in normal and pathological conditions;
- aetiology, pathogenesis of teeth hard tissues diseases, the current classification (ICD-10);
- the role of social and biological factors in the development of the disease, to understand the dental diseases pathogenesis and its features in childhood;
- the tactics of a dental patient clinical examination on an outpatient basis, diagnostic algorithm;
- the principles and methods of outpatient conservative treatment of teeth hard tissues diseases;
- modern filling materials, their composition, properties and indications for use, especially their use in childhood;
- dental instruments;
- basic principles of asepsis in paediatric dentistry.

The student needs to have the **SKILLS**:

- to evaluate functional changes of the maxillofacial apparatus in children at different age periods;
- in a limited time to conduct a qualitative survey and examination of the child and to identify objective data confirming the diagnosis;
- determine the minimum additional methods of examination required for diagnosis;
- make a diagnosis;
- make a plan of examination, treatment and prevention of a particular patient;
- choose the best treatment method;
- provide treatment of caries using non-invasive and invasive methods to restore the shape and function of temporary and permanent teeth;
- to provide the treatment of the non-carious dental lesions in children using non-invasive and invasive methods;
- identify, eliminate and take measures to prevent the teeth hard tissues diseases through the control of hygiene and training in individual hygiene methods;
- to provide the first aid in a case of emergency.

The student needs to be **PROFICIENT** in:

- methods of general clinical examination of children and adolescents at the dental clinics;
- differential diagnosis of various dental diseases;
- the correct design of out-patient and medical records;
- methods of remineralising therapy;
- modern methods of caries treatment using glass ionomer and mineral cements, light and chemical curing composites;
- treatment methods of children and adolescents with non-carious diseases of teeth hard tissues;
- whitening methods of vital and devital teeth in the permanent dentition;
- methods of professional oral hygiene.

7. The internship practice structure and content

The total complexity of the practice is 3 credits, 108 hours.

Table 1

№	The practice sections (stages)	Types of educational work during practice, including individual student work and labour intensity (hours)		Total hours	Forms of current control
		PW*	ISW*		
1	Organisation and equipment of dental office	1	1,5	2,5	Assessment of practical skills
2	Safety instructions	0,5		0,5	Assessment of practical skills
3	The determination of the hygienic indices	4		4	Assessment of practical skills
4	Implementation of hygiene products individual selection	3	2	5	Assessment of practical skills
5	Professional oral hygiene	5		5	Assessment of practical skills
6	Oral hygiene control	3		3	Assessment of practical skills
7	Examination of the children and adolescents	10	5	15	Assessment of practical skills
8	Diagnosis and differential diagnosis of teeth hard tissues pathology	2,5	5	7,5	Assessment of practical skills
9	Evaluation of the PVT * and X-rays results	1	1,5	2,5	Assessment of practical skills
10	The dental caries treatment with the use of the composite	10	6	16	Assessment of practical skills
11	The non-carious lesions treatment arising after their eruption	3	6	9	Assessment of practical skills

№	The practice sections (stages)	Types of educational work during practice, including individual student work and labour intensity (hours)		Total hours	Forms of current control
12	Carrying out the remineralising therapy	5		5	Assessment of practical skills
13	The dental fissures sealing	2,5		2,5	Assessment of practical skills
14	Whitening of vital and devital teeth	2		2	Assessment of practical skills
15	Assisting the dentist in the tooth restoration by the light-curing composite	4,5		4,5	Assessment of practical skills
16	Assisting a dentist in endodontic treatment	5		5	Assessment of practical skills
17	Filling in medical records and reporting documentation	10	6	16	Assessment of practical skills
18	Preparation of visual illustration for dental education		3	3	Assessment of practical skills
	Total hours	72	36	108	Report, journal

*PW – Practical work;

*ISW – Individual student work.

*PVT - Pulp vitality test

8. Research and production technologies used in internships practice

The practice provides the acquisition and consolidation of the necessary skills, the formation of professional competencies, readiness for independent and individual work, decision-making within the framework of professional competence. The modern methods of caries' laser diagnosis. The modern methods of root canal topography diagnosis and visualisation. Work with patients forms not only the students' readiness for independent and individual work, responsible decision-making within the framework of professional competence, but also the ability to scientifically

analyse medical and socially significant problems, readiness for logical analysis of various kinds of reasoning, communication skills, argumentation, debate and discussion. Individual student work is about 1/3 of the practice credit value and includes: keeping a diary on practice, filling out the certificate sheet, work with literature, preparation of interviews, lectures, reports, presentations on General practice dentistry, production of materials on dental education (memos, reports, questionnaires, presentations, etc.). This form of work contributes to the development of the cognitive activity, student's creative thinking, instils the skills of independent information retrieval, as well as forms the ability and willingness to self-improvement, self-realisation and creative adaptation.

At the end of the practice, the check is conducted, including an assessment of practical skills and an interview.

During the practical internship, the student should pay special attention to improving the process of the patient examination, its optimisation, the use of modern techniques, to develop clinical thinking, the ability to the differential diagnosis of dental diseases. Also, during the practical internship, students are introduced to the modern methods of laser diagnosis of caries, the modern methods of diagnosis and visualisation of roots canal topography.

9. Institutional and methodological support of students individual work in the internship practice

Within a month before the start of the practical internship, the Department responsible for conducting the internship conducts a General meeting on the practical internship with the 4th year students, where it introduces students to the internship program and announces the order of division of different educational groups students on the internship's bases. The student can also get acquainted with the internship program on the University website on the educational and information portal.

The list of skills that a student must master during the practice period is placed in the student's practice diary in the form of a liner. The volume of reports can be 10-15 pages; the structure of the report is close to the structure of the course work. The purpose of each report on the practice is to understand and fix the professional and social and personal competence acquired by the student as a result of the development of academic courses and received them in practice.

9.1. Methodological guidelines for students in preparation for practical training

The following list of documents is intended to acquaint students with the methodological guidelines:

1. Safety instructions.
2. Acquaintance with the internal regulations of dental establishment
3. The sanitary-epidemiological regime of dental establishment

9.2. Responsibilities of the student during the internship

1. Perform all necessary oral care manipulations under the supervision of a dentist and the duties provided for GP dentists.
2. Come to the practice and to be in the clinic in the proper prescribed form of clothing.
3. To submit to the rules of internal labour regulations operating in the organisation.
4. Get acquainted with the work of the dental department.
5. Accurately and in due time to fill in necessary documentation and daily to provide it on the check to the doctor and the head curator.
6. To carry out sanitary and educational work.
7. Study and strictly observe the rules of labour protection and safety.
8. Actively participate in the public life of the medical establishment.

9.3. Preparing for the credit

9.3.1. The main sections in preparation for the credit

1. Classification of the dental instruments.
2. The general principles of carious cavities preparation by Black.
3. The carious cavity elements.
4. The carious cavity preparation stages.
5. What are the leading causes of dental caries (local, general)?
6. What is the cariogenic microflora?
7. The additional methods of examination for the teeth's hard tissues disease in children.

9.3.2. Control questions for the current certification and the students' self-work in the sections "Hygiene and prevention of dental diseases", "Cariesology", "Non-carious lesions", "Endodontics" in children and adolescents:

- main and additional methods of dental patient examination;
- caries aetiology and pathogenesis;
- the plaque role in the caries pathogenesis;

- diagnosis and differential diagnosis of caries, pulpitis, periodontitis in temporary and permanent teeth;
- aetiology and pathogenesis of non-carious lesions;
- diagnosis and differential diagnosis of teeth non-carious lesions;
- the methods of the hygienic indices determination, the role of hygiene in the prevention of dental diseases;
- types of anaesthesia, methods of their implementation, anaesthetics;
- modern methods of caries, pulpitis and periodontitis treatment of temporary and permanent teeth, acute tooth injury, non-carious lesions of teeth in childhood;
- errors and complications in the treatment of caries, pulpitis, periodontitis in children and adolescents.

9.3.3. Documents to prepare for the credit

To prepare for the credit on practical training, the student prepares the following documents:

1. Practice report.
2. Intern's diary.
3. The characteristics from the place of practice.
4. Individual task.

Documents on completion of practice, certified by the head of practice in the clinic, should be submitted to the head of practice from the Department no more than two weeks after its completion. Protection of reports on practice is carried out at the Department in the presence of a Department's Commission (at least three people). By results of the practices' report protection, the student receives an assessment. The student who has received an unsatisfactory assessment for practice is not allowed to the credit.

9.3.5. Instructions for completing the report

The report is an official document confirming the practice. In it, the student must daily reflect the number of manipulations performed.

The practice report should contain:

1. title page
2. content;
3. introduction;
4. main part;
5. conclusion;

6.list of sources used;

7.applications

9.3.6. The instructions for completing the Intern's diary

During the internship, students fill out a daily diary of practical training.

1. Diary, along with the report on the internship, is the main document on which the student reports on the implementation of the internship program.
2. During the practice, the student daily writes in a diary all that they have done to implement the program.
3. At least once a week, the student is obliged to submit a diary for viewing to the head of the establishment, who signs the diary after viewing, makes his comments and gives additional tasks.
4. At the end of the practice, the student must submit a diary to the head of the practice from the establishment to view and write a review.
5. Within the prescribed period, the student must submit to the Department report and practice diary. Without a diary, practice does not count.

9.3.7. The characteristics of the student-trainee

Characteristics of the student from the place of practice - a document attached to the report on the practice. It is made by the responsible person of the organisation or the head of the student.

The main requirements for the characteristic's design

1. The title is indicating the place of practice, information about the organisation and its details. This information should be legally reliable.
2. Information about the terms of the internship. Can be located in any place characteristics. Description of duties of the student. Example: *The duties of the trainee Petrov V. D. included the collection of the patient's history, oral examination, dental formula recording, determination of hygiene index, etc.*
3. Characteristics of theoretical knowledge of the student and acquired practical skills. Example: *Intern Ivanov A. B. successfully used the theoretical knowledge obtained at the University to perform tasks during the reception of the patient, mastered the work with medical documentation, the definition of the hygiene index, oral hygiene, preparation of the presentation and report on "the topic of the presentation is indicated".*
4. The assessment of the work performed by the student.

10. Forms of interim certification (based on the results of practical training)

Certification following the results of practice is carried out in the last day of practice based on the written report (diary) issued by the established requirements, the head of practice review from the enterprise and interview with the head of practice from the Department. The assessment is made according to the certification results.

11. Educational-methodical and information support of internship practice

a. main literature:

- 1) Welbury R., Duggal M.S., Hosey M.T. Paediatric Dentistry Fifth Edition/ Oxford University Press; 5 edition (June 5, 2018) - 408 p.
- 2) Muthu M. S., Kumar S. Paediatric Dentistry: Principles and Practice 2nd Edition / Elsevier India, 2011, 588 p.

b. additional literature:

- 1) American Pocket medical dictionary [Текст] : A dictionary of the Principal Terms Used in Medicine, Nursing, Pharmacy, Dentistry, Veterinary Science, and Allied Biological Subjects. - 19th ed. ; Книга на английском языке. - Philadelphia-London : W.B.Saunders, 1953. - 639 p. : il. - 2.50.
- 2) American Pocket medical dictionary [Текст] : A dictionary of the Principal Terms Used in Medicine, Nursing, Pharmacy, Dentistry, Veterinary Science, and Allied Biological Subjects. - 19th ed. ; Книга на английском языке. - Philadelphia-London : W.B.Saunders, 1953. - 639 p. : il. - 2.50.
- 3) American Pocket medical dictionary [Текст] : A dictionary of the Principal Terms Used in Medicine, Nursing, Pharmacy, Dentistry, Veterinary Science, and Allied Biological Subjects. - 19th ed. ; Книга на английском языке. - Philadelphia-London : W.B.Saunders, 1953. - 639 p. : il. - 2.50.
- 4) Merzlikin N.V. The Medical History of a Surgical Patient : tutorial [Электронный ресурс] : Tutorial / N.V. Merzlikin. - М. : ГЭОТАР-Медиа, 2018. - 120 p. - ISBN 978-5-9704-4465-8.
- 5) Cobourne M.T. Handbook of Orthodontics / M.T. Cobourne. - Книга на английском языке. - London : Elsevier, 2009. - 427 p. : il. - ISBN 9780723435952 : 3727.37.

- 6) Oral and Maxillofacial Surgery, Radiology, Pathology and Oral Medicine. Volume One. - Книга на английском языке. - London : Elsevier, 2008. - 272 p. : il. - (Master Dentistru). - ISBN 9780443068966 : 2285.88.

12. Material and technical support of the internship practice

Specially equipped dental offices.

13. The foundation of evaluation tools for the student's interim certification in internships practice

The student receives from 51 to 100 points for practice.

The fund of evaluation tools

Table 2

Points sum in the system	Mark	Mark ECTS
95-100	5+	A
86-94	5	B
69-85	4	C
61-68	3+	D
51-60	3	E
31-50	2+	FX
0-30	2	F
51-100	Credit	Passed

As a result of this training practice, the student must acquire the following practical skills, abilities, professional competencies: PC-1, PC-2, PC-5, PC-6, PC-8, PC-9, PC-10, PC-14, PC-15, PC-17, PC-18, PC-19.

Table 3

Competencies formed in the internship practice "Dental assistant (peadiatric)"

Competence index	The competence descriptions	The stage of the competence formation
GPC-6	readiness to maintain medical records	Final

Competencies formed in the internship practice "Dental assistant (paediatric)"

Competence index	The competence descriptions	The stage of the competence formation
		Independent execution
GPC-9	ability to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems	Final Independent execution
GPC-11	readiness to use medical devices provided by the procedures of medical care for patients with dental diseases	Final Independent execution
PC-1	Ability and readiness to implement a set of measures aimed at the preservation and promotion of health and includes the formation of a healthy lifestyle, prevention of the occurrence and spread of dental diseases, their early diagnosis, identification of the causes and conditions of their occurrence and development, as well as aimed at eliminating the harmful effects on human health factors of its habitat.	Final Independent execution
PC-2	Ability and readiness to conduct preventive medical examinations, screening annual examination and implementation of dispensary monitoring of patients with dental pathology.	Final Independent execution
PC-5	readiness to collect and analyse the patient's complaints, his/her history data, examination results, laboratory, instrumental, pathologic-anatomical and other studies in order to recognise the condition or establish the presence or absence of dental disease	Final Independent execution
PC-6	ability to determine in patients the main pathological conditions, symptoms, syndromes of dental diseases, nosological forms following the International statistical classification of diseases and health-related problems, X view	Final Independent execution

Competencies formed in the internship practice "Dental assistant (paediatric)"

Competence index	The competence descriptions	The stage of the competence formation
PC-8	ability to determine the tactics of patient's management with various dental diseases	Final Independent execution
PC-9	readiness for management and treatment of patients with dental diseases in outpatient and day hospital conditions	Final Independent execution
PC-10	readiness to participate in the provision of medical assistance in emergency situations, including participation in medical evacuation	Final Independent execution
PC-14	Ability to apply the basic principles of organisation and management in the field of public health, in medical organisations and their structural units.	Final Independent execution
PC-15	Readiness to participate in the assessment of the quality of dental care using fundamental medical and statistical indicators.	Final Independent execution
PC-17	Readiness for analysis and public presentation of medical information based on evidence-based medicine	Final Independent execution
PC-18	Ability to participate in research	Final Independent execution
PC-19	Readiness to participate in the introduction of new methods and techniques aimed at protecting public health	Final Independent execution

Table 4

Evaluation criteria

The evaluation tools name	Assessment	Evaluation criteria
Interview	Passed (17-30 points)	The student shows the knowledge of the basic material to the extent necessary for the upcoming professional

Evaluation criteria

The evaluation tools name	Assessment	Evaluation criteria
		activities; when answering questions does not allow blunders, demonstrates the ability to systematise knowledge and clinical thinking, confirms the development of competencies provided by the program at the minimum acceptable level.
	Failed (0-29 points)	The student has significant gaps in knowledge of the basic educational material in the discipline; is not able to argue and consistently present it, makes gross errors in the answers, incorrectly answers questions asked by the Commission or difficult to answer; does not confirm the development of competencies provided by the program
Practice report	Passed (17-40 points)	The work is written by the rules of medical documentation registration. No plagiarism. In the medical history, the sequence of registration is without missing any points. In the presentation of events, actions, interviews, etc. must be observed the time and logical sequence. The text should not contain grammatical errors and abbreviations. Writing drugs in Latin, the dosage of drugs correspond to the age of the child.
	Failed (0-29 points)	The work is plagiarism. The rules of the medical history registration are not observed. There is no logical and time sequence of the disease and the treatment.
Practical task	Passed (17-30 points)	The student follows the rules of individual protection, ergonomics, guided in the name of tools and medicines, observes the stages of the practical task, is able to evaluate the result of their work
	Failed (0-29 points)	The student does not follow the rules of individual protection, ergonomics, poorly versed in the name of tools and medicines, violates the phasing of the practical task, incorrectly assesses the result of their work.

The program of practice is made according to the list approved by the order of the Ministry of education and science of Russia of 12.09.2013 No. 1061.

The program was developed in 2020 in accordance with the requirements of the Federal state educational standard of higher professional education, approved by the order of the Ministry of education and science of 9 of February, 2016 № 96.

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