

Ministry of Health of Ukraine
National Pirogov Memorial Medical University, Vinnytsya

“Agreed”

by Methodical Council
of dentistry disciplines

Protocol № 9

From “24” 04 2024 y.

Head of the Methodical Council

Professor of HEI


Serhii SHUVALOV

“Approved”

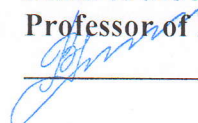
by Academic Council of National Pirogov
Memorial Medical University

Protocol № 9

From “25” 04 2024 y.

Head of the Academic Council

Professor of HEI


Viktoriia PETRUSHENKO

Instructions for station # 1

**“The main pathological conditions in the clinic of therapeutic dentistry:
diagnosis, treatment”**

**to an objective structured practical (clinical) exam
in therapeutic dentistry
Specialty – 221 “Dentistry”**

Instructions for station # 1
**“The main pathological conditions in the clinic of therapeutic dentistry:
diagnosis, treatment”**

The practical component of the single state qualification exam OCP(C)E on the Faculty of Dentistry will be carried out in a one-day format according to the order of acting rector of Vinnytsia National Pirogov Memorial Medical University №31 dated May 8, 2023. In accordance with the Decree of the President of Ukraine dated 24.02.2022 №64/2022 “On the imposition of martial law in Ukraine”, the letter of the Ministry of Education and Science №1/3417-22 dated 10.03.2022 “At the end of the academic year”, the Order of Vinnytsia National Pirogov Memorial Medical University №157 dated 11.03.2022 “About restoration of educational process during the period of martial law”, “Regulation about organization of the educational process at Vinnytsia National Pirogov Memorial Medical University”, approved by the decision of the Academic Council, protocol №1 dated September 12, 2022, “Regulation about introduction of elements of distance learning at Vinnytsia National Pirogov Memorial Medical University”, approved by the decision of the Academic Council, protocol №8 dated May 26, 2020. OSK(C)E will be carried out in a mixed form.

On the day of the exam, the secretary of the State Examination Commission joins the examiner to the meeting to record the exam video. At the station, the student should greet and introduce himself, **show a document** (passport) proving his identity to the teacher. The student acquires a practical skill or scenario where you need to specify the algorithm of manipulation, interpret the results of basic and additional methods of examination, analyze the results of laboratory and instrumental methods of research, diagnose, perform a certain stage of treatment, justifying the choice of tools and materials for this stage.

The duration of passing the station is up to 8 minutes. After the end of the stay at the station, the examiner does not accept the answer. Pay attention that the teacher is an observer of your actions and does not provide instructions, comments or questions.

Requirements for passing the station:

- Use a computer or laptop during the answer.
- the answer is accepted under the condition of the included camera, where the student who passes the exam is clearly visible, and the included microphone with a clear sound;
- video is recorded while working at the station.

It is forbidden to use a mobile phone and other electronic gadgets, to transmit, copy and take out any information related to the exam.

Part of OSP (C) E in therapeutic dentistry consists of two stations.

Station 1 “The main pathological conditions in the clinic of therapeutic dentistry: diagnosis of treatment”.

Competencies to be assessed:

Communicative: the ability to present yourself, to explain the purpose of communication.

Physical:

1. Skills to examine a dental patient;
2. Skills to justify and formulate a preliminary diagnosis;
3. Skills to analyze the results of the examination of a dental patient;
4. Skills to define a clinical diagnosis of major diseases of the teeth, periodontium, oral mucosa;
5. Skills of carrying out dental medical and diagnostic manipulations:

- Pulp amputation of permanent teeth
- Determination of acid resistance of tooth enamel
- Diagnostic use of dyes
- Pulp extirpation of permanent teeth
- Electroodontodiagnostics
- Instillation of drugs into periodontal pockets
- Medicamentous treatment of the affected areas of the oral mucosa and periodontium
- Applying and removal of temporary fillings and tight bandages in the treatment of caries, pulpitis, apical periodontitis
- Filling of carious cavities of permanent teeth with various filling materials
- Filling of root canals of permanent teeth with different materials
- Preparation and treatment of root canals of permanent teeth
- Preparation of carious cavities taking into account the type of filling material
- Preparation and application of periodontal bandages
- Carrying out professional oral hygiene
- Grinding and polishing of fillings from all types of filling materials

Cognitive:

- Clinical features of the anatomical and histological structure of the teeth, periodontium, oral mucosa and organs of the oral cavity
- Classification of diseases of the teeth, periodontium, oral mucosa
- The main methods of examination of dental patients
- Clinical signs of dental diseases
- The main clinical and laboratory indicators of biological fluids of the human body and tissues of the maxillofacial area
- Principles of differential diagnosis of dental diseases
- Principles and stages of treatment of dental patients
- Types, levels and measures for the prevention of diseases of the teeth, periodontium and oral mucosa

List of diseases:

1. Non-carious lesions of the hard teeth tissues (hyperesthesia, enamel hypoplasia, enamel hyperplasia, fluorosis, erosion of the hard tooth tissues, wedge-shaped defect, pathological abrasion of teeth, necrosis of hard tooth tissues, discoloration, traumatic damage of the teeth)
2. Caries and its complications (pulpitis, apical periodontitis)
3. Periodontal diseases (papillitis, gingivitis, generalized periodontitis, periodontosis, idiopathic periodontal diseases)
4. Diseases of the oral mucosa (traumatic lesions, autoinfectious diseases of oral mucosa, secondary bacterial diseases, oral mucosa disease in dermatoses with autoimmune component, changes in oral mucosa in allergic lesions, changes in oral mucosa in intoxications with heavy metal salts, symptomatic viral diseases, symptomatic changes of internal organs and systems, diseases of the tongue and lips)
5. Precancerous lesions of the oral mucosa and red lip border

Materials and technical support of the station: dental phantoms, dental units, instruments for examination of the oral cavity, instruments for preparation and filling of carious cavities, endodontic instruments, materials and medicines used in the clinic of therapeutic dentistry, results of additional and laboratory research methods, answer sheet, checklist.

STATION DURATION AND TIME DISTRIBUTION:

№	Action	Time distribution (approximately)
1.	Acquaintance with the task	1 min.
2.	Completion of the task	7 min.
	Total:	8 min.

Practical skills to the first station**Task 1.**

Assess the condition of periodontium based on the patient's clinical examination and panoramic radiography.

Instructions-scheme for the student when answering:

№	The answer includes	Estimated gradation	
1.	Communication	0,25	
2.	Carry out a questioning of a patient with generalized periodontitis (determine the main complaints)	1,0	
3.	Carry out clinical examination of a patient with generalized periodontitis (gum examination, mobility, bleeding, periodontal pocket)	1,0	
4.	Assess the dentition based on the X-ray data (integrity of the dentition, position of individual teeth, presence of orthopedic and orthodontic structures)	0,75	
5.	Assess the state of the periodontium bone tissues based on radiograph data (state of the cortical plate, state of the interalveolar membranes, state of the alveolar bone, state of the periodontal gap)	1,0	
6.	Make a diagnosis	1,0	

Task 2.

Carry out a clinical examination of a patient with apical periodontitis.

Instructions-scheme for the student when answering:

№	The answer includes criteria	Estimated gradation	
1.	Communication	0,25	
2.	Carry out a questioning of a patient with chronic granulating apical periodontitis (determine the main complaints)	0,75	
3.	Carry out the main methods of objective examination of a patient with chronic granulating apical periodontitis (determine the most important diagnostic signs)	1,0	
4.	Determine the Lukomsky's symptom (choice of the necessary instruments, manipulation technique, evaluation of the result)	1,0	
5.	Determine the Marmasse's symptom (manipulation technique, evaluation of results)	1,0	
6.	Determine the symptom of the reflected kick (Schmrecker) (manipulation technique, evaluation of results)	1,0	

Task 3.

Take material from the oral mucosa for cytological and microscopic examination. Analysis of results.

Instructions-scheme for the student when answering:

№	The answer includes criteria	Estimated gradation	
1.	Communication	0,25	
2.	Prepare the patient for the study (questioning of the patient and preparation of the study area)	0,75	
3.	Take material from the oral mucosa for cytological and microscopic examination by the inprint method (prepare the means, manipulation technique)	1,0	
4.	Take material from the oral mucosa for cytological and microscopic examination by scraping (prepare the means, manipulation technique)	1,0	
5.	Take material from the oral mucosa for cytological and microscopic examination by the smear method (prepare the means, manipulation technique)	1,0	
6.	Analyze the obtained results (describe the cells according to the photo, make a diagnosis)	1,0	

Task 4.

Evaluate the condition of periodontal tissues according to the indicators of gingival indices and Schiller-Pisarev test. Make a preliminary diagnosis.

Instructions-scheme for the student when answering:

№	The answer includes criteria	Estimated gradation	
1.	Communication	0,25	
2.	Carry out a clinical examination of a patient with catarrhal gingivitis (determine leading symptoms)	0,75	
3.	Determine the Loe-Silness gingivitis index (technique of carrying out, interpretation of the result in catarrhal gingivitis)	1,0	
4.	Determine the PMA index – qualitative and quantitative assessment (technique of carrying out, interpretation of the result in catarrhal gingivitis)	1,0	
5.	Carry out a Schiller-Pisarev test (technique of carrying out, interpretation of the result in catarrhal gingivitis)	1,0	
6.	Make a preliminary diagnosis (by photo)	1,0	

Task 5.

Carry out a clinical examination of the patient with oral mucosal diseases.

Instructions-scheme for the student when answering:

№	The answer includes criteria	Estimated gradation	
1.	Communication	0,25	
2.	Carry out a questioning of a patient with oral mucosal disease (determine the main subjective symptoms of this disease)	0,75	
3.	To carry out the main methods of objective examination of a patient with oral mucosal disease (determine the leading clinical symptoms that allow making a diagnosis)	1,0	

4.	Identify the primary elements of the lesion on the oral mucosa by photo	1,0	
5.	Identify the secondary elements of the lesion on the oral mucosa by photo	1,0	
6.	Make a preliminary diagnosis	1,0	

Task 6.

Carry out a clinical examination of a patient with acute middle caries.

Instructions-scheme for the student when answering:

№	The answer includes criteria	Estimated gradation	
1.	Communication	0,25	
2.	Carry out a questioning of a patient with acute middle caries (determine the characteristic complaints of the patient)	0,75	
3.	Carry out the main methods of objective examination of a patient with acute middle caries (determine the clinical symptoms of this pathology)	1,0	
4.	Carry out a cold test, evaluate the results (preparation of means, manipulation technique, assessment of results in acute middle caries)	1,0	
5.	Carry out electroodontodiagnostics (EOD), evaluate the results (prepare the device, manipulation technique, interpretation of results in acute middle caries)	1,0	
6.	Carry out a test with a caries marker, evaluate the results (preparation of means, manipulation technique, assessment of results in acute middle caries)	1,0	

Task 7.

Carry out a clinical examination of a patient with periodontal pathology.

Instructions-scheme for the student when answering:

№	The answer includes criteria	Estimated gradation	
1.	Communication	0,25	
2.	Carry out a questioning of a patient with generalized periodontitis of the II degree (determine the main complaints)	1,0	
3.	Carry out the main methods of objective examination of a patient with generalized periodontitis of the II degree (gum examination, mobility, bleeding, periodontal pocket)	1,0	
4.	Assess the change in the relief of the gums (determine the signs that are characteristic for generalized periodontitis of the II degree)	1,0	
5.	Assess the depth of the periodontal pocket (selection of tools, manipulation technique, interpretation of results in a patient with generalized periodontitis of the II degree)	1,0	
6.	Assess the presence of exudate in the periodontal pocket (manipulation technique, interpretation of results)	0,75	

Task 8.

Diagnose acute deep caries on the masticatory surface of the molar. Carry out the preparation of class I carious cavity by Black.

Instructions-scheme for the student when answering:

№	The answer includes criteria	Estimated gradation	
1.	Communication	0,25	
2.	Diagnose acute deep caries on the masticatory surface of the molar (determine the most important diagnostic criteria)	0,75	
3.	Prepare the necessary tools for carrying out each stage of carious cavity preparation (choose all necessary instruments)	1,0	
4.	Carry out the opening and expansion of the carious cavity (choose the necessary tools for these stages, the manipulation technique on the phantom, determine the criteria for self-control of these stages)	1,0	
5.	Carry out the necrectomy and the formation of a carious cavity (choose the necessary tools for these stages, the manipulation technique on the phantom, determine the criteria for self-control of these stages)	1,0	
6.	Carry out the smoothing of the edges of the prepared carious cavity (choose the necessary tools for these stages, the manipulation technique on the phantom, determine the criteria for self-control of these stages)	1,0	

Task 9.

Carry out irrigation of the root system using an endodontic syringe. Provide emergency aid in the hypochlorite accident.

Instructions-scheme for the student when answering:

№	The answer includes criteria	Estimated gradation	
1.	Communication	0,25	
2.	Diagnose acute purulent pulpitis in the causal tooth (determine the most important diagnostic criteria)	0,75	
3.	Choose the necessary instruments and accessories for irrigation of the root system. Choose irrigants for disinfection and expansion of root canals (selection of the necessary manipulation support)	1,0	
4.	Carry out irrigation with an endodontic syringe for non-infected root canals (choice of irrigation protocol, technique of manipulation on an endodontic phantom, criteria of high-quality manipulation)	1,0	
5.	Carry out irrigation with an endodontic syringe for infected root canals (choice of irrigation protocol, technique of manipulation on an endodontic phantom, criteria of high-quality manipulation)	1,0	
6.	Provide emergency in the development of a hypochlorite accident. Give recommendations to the patient (choosing of necessary support and emergency aid algorithm)	1,0	

Task 10.

Carry out temporary filling of the root canal in the treatment of apical periodontitis.

Instructions-scheme for the student when answering:

№	The answer includes criteria	Estimated gradation	
1.	Communication	0,25	
2.	Diagnose chronic granulomatous apical periodontitis in the causal tooth (determine the most important diagnostic signs)	0,75	
3.	Choose tools for temporary filling of the root canal (selection of the necessary manipulation support)	1,0	

4.	Choose filling materials for temporary filling of the root canal (identify four groups of materials for temporary filling and choose representatives)	1,0	
5.	Carry out temporary filling of the root canal with the help of manual endodontic tools (selection of tools, manipulation technique on an endodontic phantom, self-control criteria)	1,0	
6.	Carry out temporary filling of the root canal with the help of paste rotary filler (selection of tools, manipulation technique on an endodontic phantom, self-control criteria)	1,0	

Task 11.

To restore the anatomical shape of the first molar of the upper jaw with a light-cured composite material.

Instructions-scheme for the student when answering:

№	The answer includes criteria	Estimated gradation	
1.	Communication	0,25	
2.	Choose the color of the material according to the VITA scale (determination of conditions for carrying out, technique of performing on the patient)	0,75	
3.	Choose tools and accessories for manipulation (choose all the necessary arsenal of provision for filling carious cavity of II class by Black)	1,0	
4.	Carry out the filling of the carious cavity, following all stages of work with light-cured composite material (determine the stages of working with composite material, the technique of performing each stage on a phantom)	1,0	
5.	Restore the contact point (selection and fixation of the matrix on the phantom, manipulation technique, self-control criteria)	1,0	
6.	Carry out the final processing of the light-cured composite filling (choose material support, manipulation technique, self-control criteria)	1,0	

Task 12.

Carry out the root canals obturation by cold lateral compaction of gutta-percha.

Instructions-scheme for the student when answering:

№	The answer includes criteria	Estimated gradation	
1.	Communication	0,25	
2.	Diagnose chronic fibrous apical periodontitis of the causal tooth (determine the most important diagnostic criteria)	0,75	
3.	Choose instruments for filling root canals using the method of cold lateral compaction of gutta-percha (select the necessary material support)	1,0	
4.	Select gutta-percha pins for manipulation (select the master pin, fit in the root canal, prepare additional pins)	1,0	
5.	Select and prepare the sealer (choose the necessary sealer from among the ones offered, prepare it for work)	1,0	
6.	Carry out filling of the root canals using the method of cold lateral compaction of gutta-percha (phantom manipulation technique, self-control criteria)	1,0	

Task 13.

Carry out the removal of dental deposits by an instrumental method in a patient with generalized periodontitis under local anesthesia. Provide emergency aid in case of a possible complication of this manipulation – with anaphylactic shock.

Instructions-scheme for the student when answering:

№	The answer includes criteria	Estimated gradation	
1.	Communication	0,25	
2.	The choice of instruments and medicines for the manipulation (select all the necessary equipment for removing dental deposits by the instrumental method)	0,75	
3.	Perform removal of supragingival dental calculus using an instrumental method (choose tools for removing supragingival dental calculus, demonstrate the manipulation technique on the patient, self-control criteria)	1,0	
4.	Perform removal of subgingival dental calculus using an instrumental method (choose tools for removing subgingival dental calculus, demonstrate the manipulation technique on the patient, self-control criteria)	1,0	
5.	Assessment of the effectiveness of the performed manipulation (carry out a visual and tactile assessment)	1,0	
6.	Provide emergency aid in the development of a complication of this manipulation – with anaphylactic shock (measure the blood pressure, choose the necessary drugs in the first aid kit)	1,0	

Task 14.

To diagnose chronic deep caries on the proximal surface of the incisor. Carry out the preparation of class III carious cavity by Black.

Instructions-scheme for the student when answering:

№	The answer includes criteria	Estimated gradation	
1.	Communication	0,25	
2.	To diagnose chronic deep caries on the proximal surface of the incisor (determine the most important diagnostic symptoms)	0,75	
3.	Prepare the necessary instruments for carrying out each stage of carious cavity preparation (select all the necessary material support, give an explanation)	1,0	
4.	Carry out the opening and expansion of the carious cavity (choose the necessary tools for these stages, the manipulation technique on the phantom, determine the criteria for self-control of these stages)	1,0	
5.	Carry out the necrectomy and the formation of a carious cavity (choose the necessary tools for these stages, the manipulation technique on the phantom, determine the criteria for self-control of these stages)	1,0	
6.	Carry out the smoothing of the edges of the prepared carious cavity (choose the necessary tools for these stages, the manipulation technique on the phantom, determine the criteria for self-control of these stages)	1,0	

Task 15.

Carry out instrumental treatment of root canals with the “Step-back” technique.

Instructions-scheme for the student when answering:

№	The answer includes criteria	Estimated gradation	
1.	Communication	0,25	
2.	To diagnose chronic fibrous pulpitis in the causal tooth (determine the most important diagnostic symptoms)	0,75	
3.	Determine the working length of the root canal using the apex locator (prepare the device, perform the manipulation on the patient, record the result)	1,0	
4.	Choose instruments for manipulation (select all the necessary material support for manipulation, give an explanation)	1,0	
5.	Select the irrigants used in this manipulation (choose means for antiseptic treatment and expansion of the root canal from among the ones offered)	1,0	
6.	Perform root canal treatment using the “Step-back” technique (fixation of the working length, formation of the apical stop, treatment of the apical and middle part of the canal, smoothing of the walls - to be carried out on an endodontic phantom)	1,0	

List of educational and methodical literature

1. Lecture material of Therapeutic Dentistry Department.
2. Periodontal and Oral Mucosa Diseases: in 2 volumes. — Volume 2: textbook (IV a. 1.) / A.V. Borysenko, L.V. Lynovytska, O.F. Nesyn et al.; edited by A.V. Borysenko— 1st edition, 2018, 624 p.
3. Oral Mucosa Diseases: Textbook / M. Yu. Antonenko, O.F. Nesyn, S.A. Shnayder [et.al.] ed. by A.V. Borysenko – Odessa: Print house, 2015. – 328 p.
4. Operative Dentistry. Endodontics: in 2 volumes. Volume 1: textbook edited by Prof. A.V. Borysenko / M.Yu. Antonenko, L.F. Sidelnikova, O.F. Nesyn et al. – 2nd edition, 2020, 384 p. ISBN: 978-617-505-788-9.
5. Gadzhula N. Preclinical Operative Dentistry: textbook. – Vinnytsia: Nilan-LTD, 2015. – 240 p.
6. Sturdevant’s Art and Science of Operative Dentistry / 7th Edition, ed. by Ritter DDS MS, V. Andre, 2018.
7. Clinical Textbook of Dental Hygiene and Therapy [Text] / ed. S. L. Noble, Wiley-Blackwell, 2018. - XVI, 414 p.
8. Textbook of Endodontology, 3rd Edition / Lars Bjorndal, Lise-Lotte Kirkevang, John Whitworth, 2018, 504 p.
9. Dental caries. Pulpitis. Apical periodontitis. Oral sepsis: a textbook / M. Yu. Antonenko, Yu.G. Romanova, S. A. Shnayder [et.al.]; ed. by A.V. Borysenko. – Odessa: Astro, 2015. – 314 p.
10. Cohen’s Pathways of the Pulp /Louis H. Berman, Kenneth M. Hargreaves. –12th Edition, 2020.
11. Clinical Textbook of Dental Hygiene and Therapy [Text] / ed. S. L. Noble, Wiley-Blackwell, 2018. - XVI, 414 p.
12. Mosby’s Dental Drug Reference [Text] / ed. A. H. Jeske, Elsevier, Philadelphia, 2018. - XVI, 1494 p.
13. Dhruvakumar D., Arun Kumar K. V., Ayilavarapu S. Hand Book on Bone regeneration: Materials, Techniques and Procedures: From Research to Clinical Practice. – Notion Press, 2019.
14. Petrushanko TA Dental aspects of allergy: A textbook for foreign students / T.A. Petrushanko, E.V. Nikolishina. K.: LLC SPE "Interservice, 2016. - 104 p.
15. Newman M. G. et al. Newman and Carranza's Clinical Periodontology E-Book. – Elsevier Health Sciences, 2018.

