Ministry of Health of Ukraine Vinnytsya National Pirogov Memorial Medical University Field of knowledge – 22 "Health" Specialty – 221 "Dentistry"

"Agreed" by	
Methodical Council of Dentis	stry
Faculty	
Protocol № 9	
From "28" DY	2021
Head of the methodical cound	cil of the
dental faculty	
Mark prof. Shuve	alov S.M.
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"Approved" by Academic Council of VNMU by M.I. Pirogov Protocol № 10 From " 29 " 04 2021 Head of the Academic Council prof. Moroz V.M.

Instructions for the student to the station № 1

"The main pathological conditions in the clinic of therapeutic dentistry: diagnosis of treatment"

The practical component of the unified state qualification exam OCP (C) E on the Dentistry Faculty will be carried out in a one-day format according to the order of the rector of Vinnytsia National Pirogov Memorial Medical University N_{233} dated 16.04.2021 in connection with the epidemiological situation in Vinnytsia region and on the basis of the Resolution of the Cabinet of Ministers of Ukraine N_{22} 956 dated 13 October 2020 "On amendments to the Resolution of the Cabinet of the Cabinet of Ministers of Ukraine dated 22 July 2020 N_{2} 641 "and in order to prevent the spread of acute respiratory disease COVID-19 caused by coronavirus SARS-CoV-2, according to the order of the rector of Vinnytsia National Pirogov Memorial Medical University N_{26} dated April 28, 2021, distance learning has been continued, so OSP (C) E will take place on the **Google Meet platform**.

On the day of the exam, the secretary of the State Examination Commission joins the meeting of the examiner and the student. Exam recording is included. At the station, the student must 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 the station lasts 10 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, comment or question.

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
 - Electroodolntodiagnostics
 - 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	1-2 min.
2.	Completion of the task	6-8 min.
3.	Time warning	in 2 minutes before the end of time
4.	Transfer to another station	1-2 min.
	Total:	10 min.

Practical skills to the first station

Task 1.

Assess the condition of periodontium and periodontal ligament according to panoramic radiography.

N⁰	The answer includes	Estimated grad	ation
1.	Assessment of the quality of the radiograph	0,93-1 / 5	
		0,8-0,92 / 4	
		0,6-0,79/3	
		0,59 and less / 2	
2.	Evaluation of dentitions	0,93-1 / 5	
		0,8-0,92 / 4	
		0,6-0,79/3	
		0,59 and less / 2	
3.	Evaluation of the surrounding bone anatomical formations	0,93-1 / 5	
		0,8-0,92 / 4	
		0,6-0,79/3	
		0,59 and less / 2	
4	Evaluation of changes in the periapical area of each tooth and	0,93-1 / 5	
	periodontal bone tissue	0,8-0,92 / 4	
		0,6-0,79/3	
		0,59 and less / 2	
5	Defining a preliminary diagnosis	0,93-1/5	
		0,8-0,92 / 4	
		0,6-0,79/3	
		0,59 and less / 2	

Instructions-scheme for the student when answering:

No	The answer includes criteria	Estimated gradati	ion
1.	Carry out a questioning of a patient with apical periodontitis	0,93-1 / 5 0,8-0,92 / 4 0,6-0,79 / 3 0,59 and less / 2	
2.	Carry out the main methods of objective examination of a patient with apical periodontitis	0,93-1 / 5 0,8-0,92 / 4 0,6-0,79 / 3 0,59 and less / 2	
3.	To determine the symptom of Lukomsky	0,93-1 / 5 0,8-0,92 / 4 0,6-0,79 / 3 0,59 and less / 2	
4	Determine the symptom of Marmasse	0,93-1 / 5 0,8-0,92 / 4 0,6-0,79 / 3 0,59 and less / 2	
5	Determine the symptom of the reflected kick (Schmrecker)	0,93-1 / 5 0,8-0,92 / 4 0,6-0,79 / 3 0,59 and less / 2	

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

Task 3.

Carry out the taking material from the oral mucosa for cytological and microscopic examination. Analysis of results.

Nº	The answer includes criteria	Estimated gradat	ion
1.	Prepare the patient for the study	0,93-1 / 5	
		0,8-0,92 / 4	
		0,6-0,79/3	
		0,59 and less / 2	
2.	Take material from the oral mucosa for cytological and	0,93-1 / 5	
	microscopic examination by fingerprint or reprint	0,8-0,92 / 4	
		0,6-0,79/3	
		0,59 and less / 2	
3.	Take material from the oral mucosa for cytological and	0,93-1 / 5	
	microscopic examination by scraping	0,8-0,92 / 4	
		0,6-0,79/3	
		0,59 and less / 2	
4	Take material from the oral mucosa for cytological and	0,93-1 / 5	
	microscopic examination by rinsing	0,8-0,92 / 4	
		0,6-0,79/3	
		0,59 and less / 2	
5	Analyze the obtained results	0,93-1 / 5	
		0,8-0,92 / 4	
		0,6-0,79/3	
		0.59 and less / 2	

Instructions-scheme for the student when answering:

Task 4.

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

Nº	The answer includes criteria	Estimated gradation	
1.	Prepare the patient for the study	0,93-1 / 5	
		0,8-0,92 / 4	
		0,6-0,79/3	
		0,59 and less / 2	
2.	Determine the Loe-Silness gingivitis index	0,93-1 / 5	
	1 - 1 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 -	0,8-0,92 / 4	
		0,6-0,79/3	
		0,59 and less / 2	
3.	Determine the PMA index - qualitative and quantitative	0,93-1 / 5	
	assessment	0,8-0,92 / 4	
		0,6-0,79/3	
		0,59 and less / 2	
4	Carry out a Schiller-Pisarev test	0,93-1 / 5	
		0,8-0,92 / 4	
	*	0,6-0,79/3	
	en e	0,59 and less / 2	
5	Define a preliminary diagnosis	0,93-1 / 5	
		0,8-0,92 / 4	
		0,6-0,79/3	
		0,59 and less / 2	

Instructions-scheme for the student when answering:

Task 5.

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

	Instructions-scheme	for the s	student when	answering:
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No	The answer includes criteria	Estimated gradati	on
1.	Carry out a questioning of a patient with oral mucosa disease	0,93-1 / 5	
		0,8-0,92 / 4	
		0,6-0,79/3	
		0,59 and less / 2	
2.	To carry out the main methods of objective examination of a	0,93-1 / 5	
	patient with oral mucosa disease	0,8-0,92 / 4	
		0,6-0,79/3	
		0,59 and less / 2	
3.	Identify the primary elements of the lesion on the oral	0,93-1 / 5	
	mucosa	0,8-0,92 / 4	
		0,6-0,79/3	
		0,59 and less / 2	
4	Identify the secondary elements of the lesion on the oral	0,93-1 / 5	
	mucosa	0,8-0,92 / 4	
		0,6-0,79/3	
		0,59 and less / 2	
5	Define a preliminary diagnosis	0,93-1 / 5	
		0,8-0,92 / 4	
		0,6-0,79/3	
		0,59 and less / 2	

Task 6.

Carry out a clinical examination of a patient with odontopathology. Instructions-scheme for the student when answering:

No	The answer includes criteria	Estimated grada	tion
1.	Carry out a survey of a patient with odontopathology	0,93-1 / 5 0,8-0,92 / 4 0,6-0,79 / 3 0,59 and less / 2	
2.	To carry out the main methods of objective examination of a patient with odontopathology	0,93-1 / 5 0,8-0,92 / 4 0,6-0,79 / 3 0,59 and less / 2	
3.	Evaluate the results of additional clinical research methods: temperature test	0,93-1 / 5 0,8-0,92 / 4 0,6-0,79 / 3 0,59 and less / 2	
4	Evaluate the results of additional clinical research methods: EOD	0,93-1 / 5 0,8-0,92 / 4 0,6-0,79 / 3 0,59 and less / 2	
5	Evaluate the results of additional clinical research methods: dye test	0,93-1 / 5 0,8-0,92 / 4 0,6-0,79 / 3 0,59 and less / 2	

Task 7.

Carry out a clinical examination of a patient with periodontal pathology. Instructions-scheme for the student when answering:

No	The answer includes criteria	Estimated gradatior	n
1.	Carry out questioning of a patient with periodontal pathology	0,93-1 / 5 0.8-0,92 / 4	
		0,6-0,79 / 3 0,59 and less / 2	
2.	To carry out the main methods of objective examination of a patient with periodontal pathology	0,93-1 / 5 0,8-0,92 / 4 0,6-0,79 / 3 0,59 and less / 2	
3.	Assess the change in the relief of the gums	0,93-1 / 5 0,8-0,92 / 4 0,6-0,79 / 3 0,59 and less / 2	
4	Estimate the depth of periodontal pocket	0,93-1 / 5 0,8-0,92 / 4 0,6-0,79 / 3 0,59 and less / 2	
5	Evalute the presence of exudate in the periodontal pocket	0,93-1 / 5 0,8-0,92 / 4 0,6-0,79 / 3 0,59 and less / 2	

Task 8.

To carry out preparation of class I carious cavity by Black on a masticatory surface of a molar at an acute deep caries.

	The answer includes criteria	Estimated gradat	ion
No	The answer includes effective	0.93-1 / 5	
. Stage	Stages of carious cavity preparation	0.8-0,92 / 4	
		0,6-0,79/3	
		0,59 and less / 2	
	a sut each store	0,93-1/5	
2.	Instruments for carrying out each stage	0,8-0,92 / 4	
	승규야 한 것이 같은 것이 아니는 것이 같은 것 같아요. 같이 많이	0,6-0,79/3	
		0,59 and less / 2	
	a second stage of cavity	0.93-1/5	
3.	Criteria for self-control during each stage of cavity preparation	0,8-0,92 / 4	
		0.6-0,79/3	
		0,59 and less / 2	
_	- it represention for various filling materials	0,93-1 / 5	
4	Features of cavity preparation for various filling materials	0,8-0,92 / 4	
		0,6-0,79/3	
		0,59 and less / 2	
5 Jus	Justify the choice of therapeutic liner	0,93-1 / 5	
		0,8-0,92 / 4	23
		0,6-0,79/3	
		0,59 and less / 2	

Instructions-scheme for the student when answering:

Task 9.

Carry out irrigation the root canal system with an endodontic syringe. Instructions-scheme for the student when answering:

	The answer includes criteria	Estimated gradation	on
[<u>0</u>	The answer mendeds erner a	0.93-1 / 5	
	Instruments for irrigation of the root canal system	0.8-0,92 / 4	
		0.6-0,79/3	
		0,59 and less / 2	
	Comming out the irrigation with an	0,93-1/5	
2.	Methodology of carrying out the irrigation with an	0,8-0,92 / 4	
	endodontic syringe	0.6-0.79/3	
		0,59 and less / 2	
	real interview of modicines for root canal irrigation	0,93-1 / 5	
3.	Justify the choice of medicines for root canal irrigation	0,8-0,92 / 4	
		0,6-0,79/3	
		0,59 and less / 2	
	Justify the choice of medicines for root canal expansion	0.93-1 / 5	
4	Justify the choice of medicines for root canal enpair	0,8-0,92 / 4	
		0,6-0,79/3	
		0,59 and less / 2	
-	Irrigation protocol for uninfected and infected root canals	0,93-1/5	
5		0,8-0,92 / 4	
		0,6-0,79/3	
		0,59 and less / 2	

Task 10.

1 1 1	t of amigal partodontitie
a filling of the root canal in the treat	ment of apical periodonnus.
Carry out temporary filling of the root canal in the treat	
Carly out tompton y	a second constant of a
Instructions scheme for the student who	en answering:
Instructions-scheme for the student who	

NG	The answer includes criteria	Estimated gradatic	n
№ 1.	Indications for temporary root canal filling in the treatment	0,93-1 / 5 0,8-0,92 / 4	
	of apical periodontitis	0,6-0,79/3	
		0,59 and less / 2	
2.	Instruments for temporary root canal filling	0,93-1 / 5	
2.	Instruments for temporary root canal analy	0,8-0,92 / 4	
		0,6-0,79/3	
		0,59 and less / 2	
2	Method of temporary root canal filling with manual endodontic instruments	0,93-1 / 5	
3.		0,8-0,92 / 4	
	endodontic fisti unients	0.6-0,79/3	
		0,59 and less / 2	
4	The method of temporary filling of the root canal with a	0,93-1 / 5	
4	paste rotary filler	0,8-0,92 / 4	
	paste rotary inter	0.6-0,79/3	
		0,59 and less / 2	
E	Justify the choice of materials for temporary filling of the	0,93-1 / 5	
5		0.8-0,92 / 4	
	root canal	0,6-0,79/3	
		0,59 and less / 2	

Task 11.

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

0				and the second second second	
Instructions-scheme	for the	student	when	answering:	

Nº	The answer includes criteria	Estimated gradati	on
	Choose the instruments and accessories for manipulation	0,93-1 / 5	
1.	Choose the instruments and accessories for any	0,8-0,92 / 4	
		0,6-0,79/3	
		0,59 and less / 2	
2	Stages of work with composite material of light curing	0,93-1 / 5	
2.	Stages of work with composite material and g	0,8-0,92 / 4	
		0,6-0,79/3	
		0,59 and less / 2	
3.	Methods of using adhesive systems of different generations	0,93-1 / 5	
2.	Methods of using utilies to systems and a	0,8-0,92 / 4	
		0,6-0,79/3	
		0,59 and less / 2	
4	Carrying out the restoration of the contact point	0,93-1 / 5	
+	Carrying out the restoration of the restoration	0,8-0,92 / 4	
		0,6-0,79/3	
		0,59 and less / 2	
5	Method of grinding the fillings from light-cured composite	0,93-1 / 5	
5	material	0,8-0,92 / 4	
	material	0,6-0,79/3	

0.59 and less / 2	

Task 12.

Carry out the root canals obturation by cold lateral condensation of gutta-percha. Instructions-scheme for the student when answering:

No	The answer includes criteria	Estimated gradation
1.	Tools for root canal filling by cold lateral condensation of gutta-percha	0,93-1 / 5 0,8-0,92 / 4 0,6-0,79 / 3 0,59 and less / 2
2.	Selection of gutta-percha pins for manipulation	0,93-1 / 5 0,8-0,92 / 4 0,6-0,79 / 3 0,59 and less / 2
3.	Technique of root canal filling by cold lateral condensation of gutta-percha	0,93-1 / 5 0,8-0,92 / 4 0,6-0,79 / 3 0,59 and less / 2
4	Justify the choice of sealer	0,93-1 / 5 0,8-0,92 / 4 0,6-0,79 / 3 0,59 and less / 2
5	Possible complications during the manipulation	0,93-1 / 5 0,8-0,92 / 4 0,6-0,79 / 3 0,59 and less / 2

Task 13.

To carry out removing of dental calculus by instrumental method in a patient with generalized periodontitis.

Instructions-scheme for the student when answering:

No	The answer includes criteria	Estimated grada	tion
1.	Choice the instruments for manipulation	0,93-1 / 5	
		0,8-0,92 / 4 0,6-0,79 / 3	
		0,59 and less / 2	1
2.	Technique of manipulation	0,93-1 / 5	
	1	0,8-0,92 / 4	
		0,6-0,79/3	
		0,59 and less / 2	
3.	Features of removal of dental deposits in the patients with	0,93-1 / 5	1
2.	generalized periodontitis	0,8-0,92 / 4	
	Series a harrist a h	0,6-0,79/3	
		0,59 and less / 2	
4	Choice the medicines used during manipulation	0,93-1 / 5	
		0,8-0,92 / 4	
		0,6-0,79/3	
		0,59 and less / 2	
5	Evaluation of effectiveness of the manipulation	0,93-1 / 5	
5		0.8-0,92/4	

0,6-0,79 / 3
0,59 and less / 2

Task 14.

Carry out the preparation of a class II carious cavity by Black in the premolar with chronic deep caries.

Instructions-scheme for the student when answering:

NC	The answer includes criteria	Estimated gradatic	on
√o	Features of carious cavity preparation in this clinical case	0,93-1 / 5	
	Features of carlous cavity preparation in this enhanced carlo	0,8-0,92 / 4	
		0.6-0,79/3	
		0,59 and less / 2	
	Stages of carious cavity preparation	0,93-1 / 5	
2.	Stages of carlous cavity preparation	0,8-0,92 / 4	
		0,6-0,79/3	
		0,59 and less / 2	
2	T 1 for comming out each stage	0,93-1/5	
3.	Tools for carrying out each stage	0,8-0,92 / 4	
		0,6-0,79/3	
		0,59 and less / 2	
4	Criteria for self-control during each stage of preparation	0,93-1/5	
4	Criteria for sen-control during each stage of prophet	0,8-0,92 / 4	
		0,6-0,79/3	
		0,59 and less / 2	
-	Features of cavity preparation for various filling materials	0,93-1 / 5	
5	Features of cavity preparation for various mining	0,8-0,92 / 4	
		0,6-0,79/3	1
		0,59 and less / 2	

Task 15.

Carry out instrumental treatment of root canals with the "Step-back" technique. Instructions-scheme for the student when answering:

»C	The answer includes criteria	Estimated gradation
Nº		0.93-1/5
1.	Choose the instruments for manipulation	0.8-0,92 / 4
		0,6-0,79 / 3
		0,59 and less / 2
2	Stores of manipulation	0,93-1 / 5
2.	Stages of manipulation	0,8-0,92 / 4
		0.6-0,79/3
		0,59 and less / 2
2	The choice of medicines used in this manipulation	0,93-1 / 5
3.	The choice of medicines used in the many	0,8-0,92 / 4
		0,6-0,79/3
		0,59 and less / 2
4	Criteria for assessing the quality of the manipulation	0,93-1 / 5
4	Criteria for assessing the quanty of the maniputation	0.8-0.92 / 4
		0,6-0,79/3
		0,59 and less / 2
~	Possible complications during manipulation	0.93-1 / 5
5	Possible complications during manipulation	

0,8-0,92 / 4
0,6-0,79 / 3
0,59 and less / 2

List of educational and methodical literature

- 1. Lecture material of Therapeutic Dentistry Department.
- Periodontal and Oral Mucosa Diseases: in 2 volumes. Volume 2: textbook (IV a. l.) / A.V. Borysenko, L.V. Lynovytska, O.F. Nesyn et al.; edited by A.V. Borysenko– 1st edition, 2018, 624 p.
- 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.
- 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. Therapeutic dentistry: A textbook for students of the dental faculty of higher medical educational institutions of the IV level of accreditation / Ed. Anatoliy Nikolishin Ed. 2nd, corrected and supplemented. Vinnytsia: Nova Kniga, 2012. 680 p.
- 6. Gadzhula N. Preclinical Operative Dentistry: textbook. Vinnytsia: Nilan-LTD, 2015. 240 p.
- Fundamentals of Operative Dentistry: A Contemporary Approach / fourth edition; ed. by T.J. Hilton, J.L. Ferracane, J.C. Broome, 2013, illus. – 612 p.
- 8. Sturdevant's Art and Science of Operative Dentistry / 7th Edition, ed. by Ritter DDS MS, V. Andre, 2018.
- 9. Clinical Textbook of Dental Hygiene and Therapy [Text] / ed. S. L. Noble, Wiley-Blackwell, 2018. XVI, 414 p.
- 10. Textbook of Endodontology, 3rd Edition / Lars Bjorndal, Lise-Lotte Kirkevang, John Whitworth, 2018, 504 p.
- 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.
- 12. Cohen's Pathways of the Pulp /Louis H. Berman, Kenneth M. Hargreaves. -12th Edition, 2020.
- 13. Clinical Textbook of Dental Hygiene and Therapy [Text] / ed. S. L. Noble, Wiley-Blackwell, 2018. XVI, 414 p.
- 14. Mosby's Dental Drug Reference [Text] / ed. A. H. Jeske, Elsevier, Philadelphia, 2018. -XVI, 1494 p.
- 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.
- 16. Petrushanko TA Dental aspects of allergy: A textbook for foreign students / T.A. Petrushanko, E.V. Nikolishina. K .: LLC SPE "Interservice, 2016. 104 p.