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Federal State Budget Educational Institution
of Higher Education
Pacific State Medical University
of the Ministry of Health of the Russian Federation

APPROVED BY

Director of the Institute of Dentistry
_____/ Pervov Yu.Yu./
"8th" of June 2026

COLLECTION OF ASSESSMENT TOOLS
B1.V.EC.02.03 Physical therapy in dentistry
of the basic educational program
of Higher Education

Specialty	31.05.03 Dentistry for foreign students (English-language program) (code, name)
Degree	Specialist's degree
Profile	02 "Healthcare" (in the field of providing health care in patients with dental pathology)
Mode of study	Full-time
Period of mastering the BEP	5 years (nominal length of study)
Institute	of Dentistry

Vladivostok, 2026

1. INTRODUCTION

1.1. Collection of Assessment Tools is a document that regulates the format, content, and types of assessment tools for continuous assessment, interim examination and final (state final) examination, and graded criteria for each type of assessment tools.

1.2. Assessment tools allows to evaluate the development of universal, general professional, and professional competencies (UCs, GPCs and PCs respectively) outlined in Federal State Educational Standard of Higher Education and defined in the basic educational program of higher education for the specialty 31.05.03 Dentistry for foreign students (English-language program), profile 02 "Healthcare" (in the field of providing health care in patients with dental pathology).

([BEP HE for the 31.05.03 Dentistry for foreign students \(English-language program\)](#) specialty, section 3 Learning Outcomes Requirements of the Basic Educational Program of Higher Education)

2. DOCUMENT BODY

2.1. Types of Assessment, Formats of Assessment Tools

No.	Types of assessment	Assessment Tools Format
1	Continuous assessment	Interview Questions
		Tests
		Mini-Case Studies
		Checklists
2	Interim assessment	Tests

3. The contents of assessment tools for continuous and interim examination are prepared by the teacher of the course

Interview questions

	Code	Competence description / name of labor function / name of work activity / text
S	31.05.03	Dentistry for foreign students (English-language program)
C	PC-2	ability to administer and apply modern methods and/or digital technologies to treat dental patients as well as monitor the effectiveness and safety of the treatment
F	A/02.7	Prescribing and monitoring the effectiveness and safety of non-pharmacological and pharmacological therapies
I		ANSWER THE QUESTIONS
		1. Therapeutic effects that occur in the body during physiotherapy procedures. 2. Classification of physical factors (by type of physical factor; by nature of impact on the body). 3. Principles of prescribing physiotherapy. 4. General contraindications to physiotherapy. 5. Safety precautions during procedures. 6. Features of the appointment of physiotherapy treatment in children and elderly patients. 7. Physical and physiological effects of direct current. 8. Principles of introducing medicinal substances into the body

	under the influence of direct current. 9. Indications and contraindications for electrophoresis, depopohoresis technique. 10. Technique and methods of apex location, equipment used. 11. Forms of pulsed currents, their therapeutic and diagnostic applications. 12. Physiological principles of electroodontodiagnostics, Technique and methods of electroodontodiagnostics, indications for use. 13. Electrosleep, indications and contraindications for its implementation in dentistry, technique and methods of implementation, equipment. 14. Diadynamic therapy: types of diadynamic currents, indications and contraindications for use in dentistry, application technique; 15. Technique and methods of conducting SMT therapy, equipment; 16. Fluctuorization, rheography, photoplethysmography mechanism of action, indications and contraindications for use in dentistry, technique and methods of performing fluctuorization , equipment; 17. Alternating current and alternating electric field of high frequency, mechanism of action, its biophysical basis; 18. Darsonvalization, physiological action, indications and contraindications for its use in dentistry; equipment, methods and techniques of application in dentistry; 19. Physiological effects of diathermy, diathermocoagulation, application methods. Indications and contraindications for use in dentistry; 20. UHF electric field, physiological effects, UHF therapy technique, indications and contraindications 21. Microwave therapy: its physical and physiological effects. Indications and contraindications. 22. Magnetic therapy, physiological effects on tissues, mechanism of action. Indications and contraindications for use in dentistry. 23. Franklinization, mechanism of physiological action. Indications and contraindications for use; 24. 5. Infrared radiation, its physical properties and physiological effects on body tissues; 25. Indications and contraindications for the use of AI. 26. Ultraviolet irradiation – characteristics; 27. Effects caused by ultraviolet irradiation in tissues. Application of ultraviolet irradiation in dentistry. Contraindications to ultraviolet irradiation; 28. Technique and methods for determining the biodose of ultraviolet radiation; 29. Laser therapy – types of laser radiation (LR) used in dentistry; 30. Physiological action and therapeutic effects of LI. Indications and contraindications for the use of LI. 31. Ultrasound, its physical properties and physiological effects on body tissues. 32. Therapeutic effects caused by ultrasound in body tissues,
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		indications and contraindications for the use of ultrasound in dentistry. 33. The physiological effects of massage on body tissues. Types of massage and their application in dentistry. Indications and contraindications for the use of massage in dentistry. 34. The mechanism of action of ionized air on the human body, indications and contraindications for conducting aeroiono- and aerosol therapy in dentistry. 35. Heat and the mechanism of its action on body tissues, indications and contraindications for the use of paraffin, ozokerite, and mud therapy in dentistry. 36. Methods of physiotherapeutic treatment of non-carious lesions of teeth. 37. Methods of physiotherapeutic treatment of decubital ulcers, infectious and viral diseases, chronic inflammatory bowel disease, erosive-ulcerative form of lichen planus, glandular cheilitis, melanoma of the esophagus, Melkersson -Rosenthal syndrome. 38. Methods of physiotherapeutic treatment of enamel caries. 39. Methods of physiotherapeutic treatment of periodontal diseases 40. Methods of physiotherapeutic treatment of complications after endodontic treatment. 41. Treatment of hematoma and bruises in the first hours after injury. 42. Treatment of hematoma, bruises 24 hours after injury. 43. Treatment of hematomas and bruises on the 4th-5th day after injury. 44. The principle of action of methods of physiotherapeutic treatment of neuritis and neuralgia. 45. The principle of the therapeutic action of physiotherapeutic methods for the treatment of neuritis and neuralgia. 46. Physiotherapeutic treatment of acute stages of arthritis. 47. Physiotherapeutic treatment of subacute stages of arthritis.
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Assessment criteria

“Very good” - more than 91% correct answers of questions of every level

“Good” - 81-90% correct answers of questions of every level

“Satisfactory” - 71-80% correct answers of questions of every level

“Unsatisfactory” - less than 71% correct answers of questions of every level

Tests for continuous and interim assessment

	Code	Competence description / name of labor function / name of work activity / text
S	31.05.03	Dentistry for foreign students (English-language program)
C	PC-2	ability to administer and apply modern methods and/or digital technologies to treat dental patients as well as monitor the effectiveness and safety of the treatment
F	A/02.7	Prescribing and monitoring the effectiveness and safety of non-pharmacological and pharmacological therapies
I		ANSWER LEVEL 1 TEST QUESTIONS (ONE CORRECT ANSWER)
		1. Therapeutic effect, characteristic only for UHF

	a) anti-inflammatory b) painkiller c) *activation of fibroblast activity d) fibrinolytic 2. The active factor in the magnetic therapy method is a) alternating electric current b) *constant or alternating low-frequency magnetic field c) medium-frequency electromagnetic field d) ultra-high frequency electromagnetic radiation e) ultra-high frequency electric field 3. Microwave therapy as a treatment method is characterized by the use of a) *electromagnetic field of the microwave range (ultra-high frequency) b) electric field c) electromagnetic field of the HF (high frequency) range d) low-frequency alternating magnetic field e) electric current 4. The therapeutic effect of ultra-high frequency therapy in inflammatory and degenerative diseases is due to the action of a) anti-inflammatory b) vasodilator c) painkiller d) antispasmodic e) desensitizing f) *all of the above 5. What type of current is used in the electrosleep method a) D.C. b) sinusoidal current c) *pulse current with a rectangular pulse shape d) pulsed current with a half-sinusoidal pulse shape 6. In rehabilitation, for which diseases is electrosleep prescribed? a) Neuroses b) Hypertension stage 1-2 c) Threat of miscarriage during pregnancy d) *All of the above 7. The most accurate characteristic of alternating current should be considered a) *current that periodically changes in magnitude and direction b) current generated in tissues under the influence of a high-frequency field generated inside the coil c) directed movement of electric charges of an oscillatory nature d) ordered movement of electric charges current, changing in magnitude 8. What type of current is used in the amplipulse therapy method? a) D.C. b) low-frequency pulsed current
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		c) high frequency and low voltage pulsed current d) *pulse current with a frequency of 5000 Hz, modulated by low-frequency oscillations 9. The mechanism of galvanization is based on the process a) Formation of eddy currents b) Micro massage at the cellular level c) *Polarization d) All of the above 10. Galvanic current is distributed in the body a) *through blood vessels and intercellular spaces b) along nerve fibers thanks to specific acceptors c) along the intestine d) all of the above is correct 11. During galvanization, under the electrodes the patient feels a) severe burning sensation b) vibration c) *tingling d) heat generation 12. Of the diseases listed below, galvanization is contraindicated in all of the following, except a) individual intolerance to electric current b) pyoderma c) skin sensitivity disorders d) *stage I hypertension, hyperthermia
I		ANSWER LEVEL 2 TEST QUESTIONS (MULTIPLE CORRECT ANSWERS)
		1. The following are not considered therapeutic methods based on the use of an electric field: a) #lasertherapy b) Franklinization c) UHF therapy d) #ultrasonic therapy 2. Factors that have a thermal effect include: alternating and constant magnetic fields a) #UHF electric field b) galvanic current c) # supratonal frequency currents 3. The use of UHF electric field is most appropriate for a) pronounced adhesive process b) # infiltrative - inflammatory process c) # acute exudative process d) in chronic process 4. What methods are incompatible with magnetic therapy a) #UHF-therapy b) #microwavetherapy c) laser therapy d) medicinal ultraphonophoresis

		5. What diseases are contraindicated in the appointment of magnetic therapy? - hypertension #having a pacemaker #bleeding tendency #thyrotoxicosis varicose veins 6. When performing Franklinization, the patient is exposed not only to a constant electric field, but also to - alternating low-frequency magnetic field - direct electric current - mechanical vibrations of the air environment #ozone and nitrogen oxides #negative-polarity aeroions 7. A positive result for bleeding gums can be achieved by using - exposure to sinusoidal modulated currents #calcium chloride electrophoresis on the gum area - exposure to UHF electric fields #electrophoresis of epsilon-aminocaproic acid on the gum area using galvanization 8. Good electrical conductivity is possessed by #body fluids - epidermis of the skin #parenchymal organs connective tissue #muscles - ligaments, tendons #oral mucosa
I		ANSWER LEVEL 3 TEST QUESTIONS (MATCHING QUESTIONS)
		1. Match the technique and the indication for use - UV irradiation - Electrosleep to relieve emotional stress - UHF EP - Laser A) Decubital ulcers B) Melkersson - Rosenthal syndrome C) Diadynamic therapy D) Tooth dislocation E) KPL 2. Match the method of physiotherapy for maxillofacial trauma - Acute and subacute inflammatory processes, including purulent ones, if there are pathways for pus drainage - Pain after tooth extraction, gum disease - A fresh wound in the hydration stage A) UHF exposure B) Fluctuation C) Hypothermia

Assessment criteria

- “Very good” - more than 91% correct answers of questions of every level
 “Good” - 81-90% correct answers of questions of every level
 “Satisfactory” - 71-80% correct answers of questions of every level
 “Unsatisfactory” - less than 71% correct answers of questions of every level

Standardized case studies and checklists for **B1.V.EC.02.03 Physical therapy in dentistry**
 course

Case Study No. 1

	Code	Competence description / name of labor function / name of work activity / text
S	31.05.03	Dentistry for foreign students (English-language program)
C	PC-2	ability to administer and apply modern methods and/or digital technologies to treat dental patients as well as monitor the effectiveness and safety of the treatment
F	A/02.7	Prescribing and monitoring the effectiveness and safety of non-pharmacological and pharmacological therapies
I		READ THE PROVIDED CASE DESCRIPTION AND GIVE DETAILED ANSWERS TO THE QUESTIONS Patient K. consulted a dentist complaining of bleeding gums when brushing her teeth and bad breath. She had noticed the bleeding six months earlier. Objectively: the gums are swollen, dark red, and bleed upon probing. There is abundant plaque, carious teeth, and overhanging fillings that are damaging the gums. The periodontal junction is intact. The occlusionogram shows multiple supercontacts.  Make a diagnosis *chronic generalized catarrhal gingivitis - Exacerbation of chronic generalized periodontitis - Acute generalized periodontitis periodontosis The course of hydrotherapy for acute catarrhal gingivitis is *8-12 procedures 3-5 procedures 5-7 procedures What are the contraindications for paraffin applications? - Periodontosis *Tumor in the maxillofacial region

		c) TMJ arthrosis d) Hypertrophic gingivitis What doses of UHF therapy are used in the acute phase of inflammation? a) *Non-thermal b) Low-thermal c) Thermal
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Case Study No. 2

	Code	Competence description / name of labor function / name of work activity / text
S	31.05.03	Dentistry for foreign students (English-language program)
C	PC-2	ability to administer and apply modern methods and/or digital technologies to treat dental patients as well as monitor the effectiveness and safety of the treatment
F	A/02.7	Prescribing and monitoring the effectiveness and safety of non-pharmacological and pharmacological therapies
I		READ THE PROVIDED CASE DESCRIPTION AND GIVE DETAILED ANSWERS TO THE QUESTIONS Patient K., 20, complains of gum pain and bleeding while brushing her teeth and while eating. These complaints began two years ago. She used Rotokan and noted improvement, but the symptoms recurred. Oral examination revealed a deep bite. The gums are swollen, hyperemic, and bleeding. False periodontal pockets are present, and saliva is viscous. All teeth on the oral side have mineralized plaque.  Make a diagnosis. *catarrhal gingivitis - hypertrophic gingivitis - Vincent's ulcerative necrotic gingivitis - periodontitis Therapeutic effect, characteristic only for UHF - anti-inflammatory - painkiller *activation of fibroblast activity - fibrinolytic In the treatment of gingivitis, electrophoresis is used with - ascorbic acid - nicotinic acid - calcium chloride *all of the above

		What doses of UHF therapy are used in the acute phase of inflammation: a) *Non-thermal b) Low-thermal c) Thermal
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Case Study No. 3

	Code	Competence description / name of labor function / name of work activity / text
S	31.05.03	Dentistry for foreign students (English-language program)
C	PC-2	ability to administer and apply modern methods and/or digital technologies to treat dental patients as well as monitor the effectiveness and safety of the treatment
F	A/02.7	Prescribing and monitoring the effectiveness and safety of non-pharmacological and pharmacological therapies
I		READ THE PROVIDED CASE DESCRIPTION AND GIVE DETAILED ANSWERS TO THE QUESTIONS Patient M., 43, presented with complaints of a painful "ulcer." History: isolated lesions have been appearing periodically in the oral cavity for 7 years following stressful events. The last such change occurred 4 days ago after the removal of a crown. Patient suffers from chronic cholecystitis. Upon examination of the oral cavity, a superficial epithelial defect of a round shape, covered with a white fibrinous coating and painful, was found on the hyperemic mucous membrane of the right cheek.  Make a diagnosis *chronic recurrent aphthous stomatitis - chronic recurrent herpes - chronic mechanical trauma - undesirable allergic reaction. For chronic rhinorrhea, the following general physiotherapeutic treatment methods are prescribed - electrosleep #colonhydrotherapy #aeroionotherapy

		Underwater intestinal lavage for chronic intestinal reflux is prescribed for the following purposes - accelerating the healing of aphthae and ulcers *desensitizing effect For chronic recurrent aphthous stomatitis during the period of remission, the following can be prescribed *total UV irradiation - hydrotherapy - aerosol therapy - general Franklinization
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Case Study No. 4

	Code	Competence description / name of labor function / name of work activity / text
S	31.05.03	Dentistry for foreign students (English-language program)
C	PC-2	ability to administer and apply modern methods and/or digital technologies to treat dental patients as well as monitor the effectiveness and safety of the treatment
F	A/02.7	Prescribing and monitoring the effectiveness and safety of non-pharmacological and pharmacological therapies
I		READ THE PROVIDED CASE DESCRIPTION AND GIVE DETAILED ANSWERS TO THE QUESTIONS Patient H., 30, complained of general malaise, fever up to 38 °C, painful blisters in the mouth, and inability to eat. History of the disease: after exposure to cold, 4 days later, the body temperature rose to 38 °C, malaise developed, and the next day, painful blisters appeared in the oral cavity. Physical examination data: the submandibular lymph nodes are enlarged, painful upon palpation, on the mucous membrane in the area of the transitional folds, along the line of closure of the teeth, and on the tongue - multiple vesicles with turbid contents, tending to merge, erosions with a yellowish pseudomembranous coating are found at the site of opening of the vesicles, viscous saliva. 

		Make a diagnosis *Acute herpetic stomatitis - Erythema multiforme exudative - Candidiasis What physiotherapy procedures can be prescribed for acute herpetic stomatitis in the first 2-3 days of the disease *low-intensity laser - darsonvalization - enzyme electrophoresis For chronic RAS, the following prescriptions are most effective *UV irradiation of aphthae, local darsonvalization - Ultraphonophoresis with 10% analgin ointment, aeroionization, electrophoresis of antiseptics, UHF electric field on the affected area
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Assessment criteria

“Very good” - more than 91% correct answers of questions of every level

“Good” - 81-90% correct answers of questions of every level

“Satisfactory” - 71-80% correct answers of questions of every level

“Unsatisfactory” - less than 71% correct answers of questions of every level

4. Assessment criteria for learning outcomes

"Pass" is given to a student who has shown a sufficiently strong knowledge of the basic concepts of the subject; is able to complete specific practical tasks outlined in the program with no outside help, use recommended reference material, and correctly evaluate the results.

"Fail" is given to a student who has significant gaps in knowledge of the basic concepts of the subject, is not able reach the correct solution to a specific practical task outlined in the curriculum even with outside help.

Practical Skills Assessment Checklist

Practical Skill Name: Depophoresis treatment

C	PC-2	ability to administer and apply modern methods and/or digital technologies to treat dental patients as well as monitor the effectiveness and safety of the treatment	
F	A/02.7	Prescribing and monitoring the effectiveness and safety of non-pharmacological and pharmacological therapies	
	Action	Performed	Not Performed
1.	Determine the indication for the method	1 point	-1 point
2.	Name the main instruments and tools for carrying out the method	1 point	-1 point
3.	Determine contraindications	1 point	-1 point
4.	Conduct the procedure	1 point	-1 point
5.	Determine the criteria for the effectiveness of the method	1 point	-1 point
	Total	5 points	

Assessment criteria:

"Pass" - at least 75% of required actions performed

"Fail" - 74% of required actions or less performed