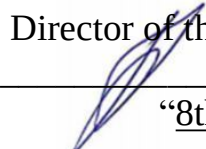


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Federal State Budget Educational Institution
of Higher Education
Pacific State Medical University
of the Ministry of Health of the Russian Federation

APPROVED BY

Director of the Institute of Dentistry
 / Pervov Yu.Yu./
“8th” of June 2026

COLLECTION OF ASSESSMENT TOOLS
B1.V.EC.01.03 Modern aspects of anesthesia 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. Innervation of tissues and organs of the maxillofacial region. Classification of methods anesthesia in dentistry. 2. Characteristics of local anesthetics 3. Potentiated local anesthesia. Premedication in dentistry. 4. Injection and non-injection methods of anesthesia in dentistry. 5. Local and general complications. Prevention and treatment methods. 6. General anesthesia in dentistry. Types of general anesthesia. Non-inhalation and inhalation anesthesia. 7. Indications and contraindications for general anesthesia.

		8. Neuroleptanalgesia, ataraxia, central analgesia. 9. Threatening and terminal state, basic concepts, stages dying, clinical manifestations, diagnostic criteria. Clinical, social and biological death. 10. Organization of resuscitation measures. Principles of provision emergency care and cardiopulmonary resuscitation in the conditions of a dental clinic, instruments, equipment, medicines. 11. Severe forms of acute cardiovascular failure. Mechanisms cardiac arrest. Artificial ventilation (ALV). Mastery skills in performing mechanical ventilation, direct and indirect methods. Drug therapy for terminal conditions. Criteria effectiveness. Training in indirect cardiac massage techniques using one or by two doctors. Defibrillation. Intracardiac injection of adrenaline.
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Assessment criteria

"Very good" grade is given to a student who possesses knowledge of the subject in full scope outlined in the curriculum, has a sufficiently deep insight into the subject; is able to answer all questions clearly, exhaustively, and with no outside help; structures their answers logically, with emphasis on the most important information; is able to analyze, compare, classify, summarize, refine, and structure the course content, giving particular attention to cause-and-effect relationships.

"Good" is given to a student whose knowledge of the subject is almost in full scope outlined in the curriculum (gaps are only present in the knowledge of some especially complex aspects); is able to answer questions exhaustively with little to no outside help; does not always put emphasis on the most important information, but does not make significant mistakes.

"Satisfactory" is given to a student who possesses the bulk of knowledge on the subject; has difficulties answering questions with no outside help, uses imprecise wording; makes mistakes in substantial number of their answers.

"Unsatisfactory" is given to a student who does not have the mandatory minimum of knowledge on the subject, is not able to give an answer even with additional guiding questions.

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. Psychological methods of pain reduction include A. non-narcotic analgesics B. acupuncture C. hypnosis 2. Physical methods of pain reduction include: A. non-narcotic analgesics B. cutting of nerve pathways C. hypnosis

3. Application anesthesia is a method
 - A. superficial local anesthesia
 - B. deep tissue impregnation
 - C. conduction anesthesia
4. The main type of anesthesia during a tooth extraction operation
 - A. local
 - B. General (anesthesia)
 - C. combined
 - D. neuroleptoanalgesia
 - E. mask anesthesia
5. Direction of the needle bevel when performing infiltration anesthesia
 - A. to the bone
 - B. from the bone
 - C. perpendicular to the bone
6. Infraorbital anesthesia achieves pain relief
 - A. upper incisors, canines, premolars and the mucous membrane of the alveolar process with the palatine sides
 - B. upper incisors, canines, premolars and the mucous membrane of the alveolar process with vestibular side
 - C. upper incisors, canines, premolars and the mucous membrane of the alveolar process with the palatine and vestibular sides
7. Diplopia is a complication typical for
 - A. tuberal anesthesia
 - B. infiltration anesthesia
 - C. infraorbital anesthesia
8. The exit site of the nasopalatine nerve
 - A. mental foramen
 - B. greater palatine foramen
 - C. incisive foramen
 - D. infraorbital foramen
9. Exit site of the greater palatine nerve
 - A. mental foramen
 - B. greater palatine foramen
 - C. incisive foramen
 - D. infraorbital foramen
10. With palatal anesthesia, a block occurs
 - A. greater palatine nerve
 - B. nasopalatine nerve
 - C. Middle superior dental plexus
11. The lower jaw is innervated by a branch of the trigeminal nerve
 - A. I-st
 - B. II-nd

		C. III-th 12. By function, the mandibular nerve A. motor B. sensitive C. mixed 13. When using Bershe anesthesia, the needle is injected A. under the lower edge of the zygomatic arch, 2 cm in front of the tragus of the ear B. above the upper edge of the zygomatic arch, 2 cm in front of the tragus of the ear C. under the lower edge of the zygomatic arch along the tragoorbital line D. under the lower edge of the zygomatic arch, 4 cm in front of the tragus of the ear 14. Anatomical landmark for mandibular anesthesia using palpation A. molars B. temporal crest C. pterygomandibular fold 15. Anatomical landmark for performing mandibular anesthesia with apodactyl method A. molars B. temporal crest C. pterygomandibular fold 16. The most common comorbidities in patients on dental appointment A. blood diseases B. diseases of the respiratory system C. cardiovascular diseases D. endocrine diseases E. liver disease 17. Concomitant diseases - relative contraindications for local anesthesia A. chronic gastritis B. acute septic endocarditis C. chronic pancreatitis D. schizophrenia in the period of exacerbation 18. Type of general anesthesia A. ataralgia B. endotracheal anesthesia C. conduction anesthesia D. vagosympathetic blockade E. infiltration anesthesia 19. Contraindication to general anesthesia A. full stomach B. allergy to local anesthetics C. mental instability of the patient D. sepsis E. chronic inflammatory process
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| | <p>20. Condition with insulin overdose</p> <ul style="list-style-type: none">A. hypoglycemiaB. hyperglycemiaC. toxic-septic shockD. uremic coma <p>21. Drug of choice for treatment of anaphylactic shock</p> <ul style="list-style-type: none">A. NovocaineB. promedolC. adrenalineD. no-spa <p>22. Late local complications that occur with local anesthesia include:</p> <ul style="list-style-type: none">A. bleedingB. needle fractureC. fracture of the lower jawD. neuropathy of the inferior alveolar nerve <p>23. Early local complications that occur with local anesthesia include:</p> <ul style="list-style-type: none">A. tissue ischemiaB. neuropathy of the inferior alveolar nerveC. phlegmonD. alveolitis <p>24. Prevention of local complications during local anesthesia</p> <ul style="list-style-type: none">A. compliance with the technique and methods of anesthesiaB. a thorough collection of life historyC. premedicationD. study of allergic anamnesis <p>25. The most common cause of myocardial infarction in young people</p> <ul style="list-style-type: none">A. coronary artery thrombosisB. embolismC. vasculitisD. atherosclerosisE. prolonged spasm of the coronary arteries <p>26. Hypoglycemia is characterized by</p> <ul style="list-style-type: none">A. decrease in blood glucoseB. the smell of acetone from the mouthC. deep, noisy breathingD. decreased muscle toneE. acetonuria <p>27. The position of the palms on the chest of an adult when performing chest compressions</p> <ul style="list-style-type: none">A. on the middle part of the sternumB. at the border of the lower and middle parts of the sternumC. on the xiphoid process of the sternumD. on the upper part of the sternum <p>28. Duration of closed cardiac massage in case of its ineffectiveness</p> <ul style="list-style-type: none">A. 4 minutes |
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		B. 30 – 60 minutes C. 1 hour D. 2 hours 29. Optimal rhythm during closed cardiac massage A. 30 – 40 per minute B. 60 – 70 per minute C. 80 – 100 per minute D. 110 – 120 per minute 30. Name the drug for total intravenous anesthesia A. diphenhydramine B. calypsol C. ditilin D. caffeine 31. Local anesthetics are A. to antihistamine pharmacological compounds B. to acetylcholine antagonists C. to antiarrhythmic drugs D. to analeptics E. to neuroplegics 32. Pathway of inactivation of local anesthetics A. hydrolysis of plasma pseudocholinesterase, reduction in the liver B. compounds with liver glyculironic acid C. oxidation D. renal excretion 33. Novocaine is A. antihistamine drug B. local analgesic drug C. antipruritic drug D. monoamine oxidase inhibitor E. anti-shock drug 34. For novocaine, the most important is A. infiltration anesthesia B. conduction anesthesia C. intraligamentary injection 35. The following effects are characteristic of sympathomimetic amines A. adrenaline causes an increase in cardiac output, as well as an increase in blood flow in all organs B. Norepinephrine causes bradycardia. C. mesaton causes vasoconstriction D. adrenaline and norepinephrine cause an increase in renal blood flow 36. Immediate general complications arising from anesthetic overdose A. trismus B. motor agitation, convulsions C. hyperemia in the area of anesthetic administration
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| | <p>37. A pronounced vasodilating effect is exerted by</p> <ul style="list-style-type: none">A. dicaine, lidocaineB. SovkainC. morphineD. Novocaine <p>38. A toxic reaction to the administration of lidocaine is manifested</p> <ul style="list-style-type: none">A. myanosis, drowsinessB. convulsions <p>39. For trimecaine, the most important is</p> <ul style="list-style-type: none">A. infiltrative injectionB. conduction injectionC. subperiosteal injectionD. intraligamentary injectionE. spongy injection <p>40. When using norepinephrine, the following effects are observed</p> <ul style="list-style-type: none">A. positive inotropic effect on the heartB. hyperglycemia and increased metabolism in the bodyC. increased coronary blood flowD. vasoconstriction of renal vesselsE. increased myocardial function <p>41. In case of adrenaline overdose, the patient should be given</p> <ul style="list-style-type: none">A. intravenously 1 ml of atropineB. intravenously 1 ml of mesatonC. intramuscularly 1 ml of norepinephrine <p>42. Local anesthetic - para-aminobenzoic acid ester</p> <ul style="list-style-type: none">A. azacaineB. SovkainC. novocainamideD. NovocaineE. mesocaine <p>43. Lidocaine has an antiarrhythmic effect</p> <ul style="list-style-type: none">A. when administered intravenously at a dose of 1-2 mg/kgB. without causing a significant decrease in cardiac outputC. due to decreased myocardial excitabilityD. is significantly faster in patients under anesthesia than in awake patientsE. in weakened patients <p>44. The longest duration of action is</p> <ul style="list-style-type: none">A. trimecaineB. NovocaineC. lidocaineD. marcain, anakain <p>45. For lidocaine, the most important is</p> <ul style="list-style-type: none">A. infiltration injection, conduction injectionB. spongy injectionC. intraligamentary injection |
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		D. intrapulpal injection 46. General anesthesia includes A. brainstem anesthesia B. anesthesia at the foramen ovale C. central analgesia D. spinal anesthesia 47. Toxicity of local anesthetics is manifested A. in hyperthyroidism B. with increasing concentration of anesthetic C. when the anesthetic enters the bloodstream 48. When using Bershe anesthesia, the needle is injected A. under the lower edge of the zygomatic arch, 2 cm in front of the tragus of the ear B. above the upper edge of the zygomatic arch, 2 cm in front of the tragus of the ear C. under the lower edge of the zygomatic arch along the tragoorbital line D. under the lower edge of the zygomatic arch, 4 cm in front of the tragus of the ear 49. Preoperative drug preparation for elderly people A. morphine-like drugs B. sleeping pills C. sedatives D. antibacterial drugs 50. For neuroleptanalgesia, drugs are administered A. enterally B. intravenously C. by inhalation D. intramuscularly
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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: Conducting infiltration anesthesia of 1.1 tooth

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.	Prepare a tray with instruments (medical spatula, dental tweezers, dental mirror, carpule syringe), carpule with anesthetic, injection needles	1 point	-1 point
2.	Treat the diaphragm of the cartridge with an antiseptic	1 point	-1 point
3.	Place the cartridge into the injector	1 point	-1 point
4.	Align the cartridge plunger with the injector plunger	1 point	-1 point
5.	Install and secure the injection needle onto the carpule injector. Check the needle for patency.	1 point	-1 point
6.	Position the carpule system relative to the injection site (45° to the alveolar process of the maxilla/alveolar part of the mandible) from the palatine/lingual surface	1 point	-1 point
7.	Insert a needle into the mucosa at the level of the transition of the alveolar process to the palatine process on the upper jaw/along the transitional fold from the lingual surface on the lower jaw	1 point	-1 point
8.	Insert the injection needle into the tissue to the required depth (to the periapical area)	1 point	-1 point
9.	Perform an aspiration test. If the aspiration test is negative, slowly infuse the anesthetic solution into the tissue.	1 point	-1 point
10.	Withdraw the injection needle from the tissue. Monitor the patient's condition. Wait for the anesthetic's latency period to take effect.	1 point	-1 point
11.	Ensure the effectiveness of the anesthesia (absence of pain sensitivity when exposed to an irritant).	1 point	-1 point
12.	Inform the patient about the completion of the procedure	1 point	-1 point
	Total	12 points	

Assessment criteria:

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

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