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
of Simulation and Training Technology
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COLLECTION OF ASSESSMENT TOOLS
Б1.О.46 Topographic anatomy of human head and neck
of the basic educational program
of Higher Education

Specialty	**31.05.03 Dentistry** **for international students (in English)** (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 Simulation and Training Technology

Vladivostok, 2025

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 international students (in English), profile 02 "Healthcare" (in the field of providing health care in patients with dental pathology).

(BEP HE for the 31.05.03 Dentistry for international students (in English) 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**	**Tests**
		Interview Questions
2	**Interim assessment**	**Tests**
		Interview Questions

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

Tests for continuous and interim assessment

	Code	Competence description / name of labor function / name of work activity / text
S	31.05.03	Dentistry for international students (in English)
C	GPC-9	Is able to assess morphofunctional status, physiological states, and pathological processes in the human body when working to achieve objectives of professional activity
I		**ANSWER LEVEL 1 TEST QUESTIONS (ONE CORRECT ANSWER)**
		1. In what direction should the soft tissues be dissected during primary surgical treatment of a wound in the frontal-parietal-occipital region? 1. longitudinally; 2. transversely; +3. radially relative to the top of the head; 4. the wound is dissected crosswise. **2. What shape should be given to the wound during primary surgical treatment of soft tissues in the frontal-parietal-occipital region?** 1. rounded; +2. fusiform; 3. Z-shaped; 4. horseshoe-shaped.

3. What tissues are included in the scalp?
1. skin and subcutaneous tissue;
+2. skin, subcutaneous tissue and tendon helmet;
3. all soft tissues, including the periosteum;
4. soft tissues of the frontal-parietal-occipital region and fragments of the bones of the cranial vault.

4. What characterizes a hematoma of the subcutaneous tissue of the frontal-parietal-occipital region?
+1. has the shape of a bump;
2. spreads within one bone;
3. has a diffuse character and moves freely within the frontal-parietal-occipital region;
4. freely spreads to the subcutaneous tissue of the temporal region and face.

5. What characterizes a subperiosteal hematoma of the frontal-parietal-occipital region?
1. has the shape of a bump;
+2. spreads within one bone;
3. has a diffuse character and moves freely within the frontal-parietal-occipital region;
4. freely spreads to the tissue of the face.

6. What head wounds are called penetrating?
1. associated with damage to the bones of the cranial vault;
2. associated with damage to the brain substance;
+3. associated with damage to the dura mater;
4. associated with damage to the pia mater.

7. Which layers of the bones of the cranial vault are more prone to damage during a skull injury?
1. all layers;
2. outer plate;
+3. inner plate;
4. spongy substance.

8. What is the name of trepanation in which a bone fragment is removed?
1. osteoplastic;
+2. decompression;
3. laminectomy;
4. one-stage.

9. Of which artery is the middle meningeal artery a branch?
1. internal carotid artery;
+2. maxillary artery;
3. facial artery;
4. occipital artery.

10. At what point is the main trunk of the middle meningeal artery projected when using the Kronlein - Bryusova scheme?

1. at the intersection of the anterior vertical and the upper horizontal;
+2. at the intersection of the anterior vertical and the lower horizontal;
3. at the intersection of the posterior vertical and the upper horizontal;
4. at the intersection of the middle vertical and the upper horizontal.

11. How is the projection line of the excretory duct of the parotid salivary gland drawn?
1. along the middle of the body of the lower jaw;
2. from the base of the tragus of the ear to the corner of the mouth;
+3. from the external auditory canal to the middle of the distance from the wing of the nose to the corner of the mouth;
4. from the base of the tragus of the ear to the wing of the nose.

12. Where is the point of digital pressure of the facial artery?
1. 1 cm below the tragus of the ear;
2. 0.5-1 cm below the middle of the lower edge of the orbit;
3. behind the angle of the lower jaw;
+4. in the middle of the body of the lower jaw at the anterior edge of the masseter muscle.

13. How many fasciae are there on the neck according to the classification proposed by V. N. Shevkunenko?
1. one;
2. two;
3. three;
+4. five.

14. Which fascia divides the neck anatomically into anterior and posterior sections?
1. first;
+2. second;
3. third;
4. fourth.

15. Where is the exit site of the superficial nerves of the neck projected?
1. at the level of the upper edge of the thyroid cartilage;
2. at the level of the hyoid bone;
+3. in the middle of the posterior edge of the sternocleidomastoid muscle;
4. there is no concentrated exit point for the superficial nerves of the neck.

16. To expose which artery is the Pirogov triangle used as a landmark?
1. external carotid artery;
2. internal carotid artery;

		3. common carotid artery; +4. lingual artery. **17. What complications are possible with a violation of the integrity of the venous wall in the neck?** +1. air embolism; 2. thromboembolism; 3. sepsis; 4. phlebitis. **18. Which arteries are involved in the blood supply to the cervical esophagus?** 1. branches of the superior thyroid artery; +2. branches of the inferior thyroid artery; 3. inferior thyroid artery; 4. ascending pharyngeal artery. **19. In relation to which anatomical formation are there upper, middle and lower tracheostomies?** 1. in relation to the cricoid cartilage; 2. in relation to the thyroid cartilage; 3. in relation to the hyoid bone; +4. in relation to the isthmus of the thyroid gland. **20. At what level is the bifurcation of the common carotid artery most often located?** 1. at the level of the angle of the mandible; +2. at the level of the upper edge of the thyroid cartilage; 3. at the level of the hyoid bone; 4. at the level of the middle of the thyroid cartilage.
I		**ANSWER LEVEL 2 TEST QUESTIONS (MULTIPLE CORRECT ANSWERS)**
		1. What instruments should be used to isolate a bone flap during osteoplastic trepanation? 1. arc saw; 2. sheet saw; +3. wire saw (Gigli); +4. Dahlgren nippers. **2. Name the branches of the internal carotid artery that supply the frontal region?** +1. supratrochlear artery; +2. ophthalmic artery; 3. maxillary artery; +4. supraorbital artery. **3. Name the arteries that supply the occipital region?** 1. ascending pharyngeal artery; +2. posterior auricular artery; +3. occipital artery; 4. posterior temporal artery. **4. What muscles are woven into the periosteum of the**

mastoid process?
+1. sternocleidomastoid muscle;
2. posterior belly of the digastric muscle;
+3. longissimus capitis;
+4. splenius muscles of the head and neck.

5. What structures are adjacent to the anterior and posterior sides of the Shipo triangle?
+1. facial nerve canal;
+2. sigmoid sinus;
3. internal carotid artery;
4. internal jugular vein.

6. What passes through the oval opening?
1. maxillary nerve (n. maxillaris);
+2. meningeal accessory branch of the middle meningeal artery
(a. meningea accessorius);
+3. mandibular nerve (n. mandibularis);
4. accessory nerve (n. accessorius).

7. Where does the venous outflow from the cavernous sinus (sinus cavernosus) go?
+1. into the superior and inferior petrosal sinuses;
2. into the transverse sinus;
+3. into the venous plexus of the foramen ovale;
+4. into the venous plexus of the carotid canal.

8. Where can infection penetrate retrograde from the infraorbital region during thrombosis of the facial vein?
1. into the sigmoid sinus (sinus sigmoideus);
+2. into the external jugular vein (v. jugularis extema);
+3. into the cavernous sinus (sinus cavemosus);
4. into the superficial temporal vein.

9. Name the terminal branches of the parotid plexus (plexus parotideus) of the facial nerve?
+1. temporal branches (rr. temporales);
+2. zygomatic branches (rr. zygomatici);
+3. cervical branch (r. colli);
+4. marginal branch of the mandible (r. marginalis mandibulae).

10. Where is the lingual nerve (n. lingualis) located?
+1. in the interpterygoid space;
2. in the temporopterygoid space;
+3. under the mucous membrane of the floor of the mouth;
4. under the mucous membrane of the root of the tongue.

11. Specify the anatomical parts of the thyroid gland?
+1. right lobe;
2. anterior lobe;
+3. isthmus;
+4. left lobe.

12. Specify the nerves involved in the innervation of the thyroid gland?

+1. sympathetic trunk;
+2. vagus nerve;
+3. superior laryngeal nerve;
4. hypoglossal nerve.

13. What is the topography of the parathyroid glands?

+1. outside the proper capsule of the thyroid gland;
+2. between the fibrous capsule and the fascial sheath of the thyroid gland;
3. on the anterior surface of the thyroid gland;
+4. on the posterior surface of the lateral lobes of the thyroid glands.

14. Specify the anatomical parts of the pharynx?

+1. nasal part of the pharynx;
+2. oral part of the pharynx;
3. pharynx;
+4. laryngopharynx.

15. Skeletotopy of the pharynx?

+1. from the base of the skull to the lower edge of C VI;
+2. from the base of the skull to the transition to the esophagus;
+3. from the base of the skull to the upper edge of C VII;
4. from the base of the skull to the level of the hard palate.

16. What anatomical structures limit the scapuloclavicular triangle?

1. upper belly of the omohyoid muscle;
+2. sternocleidomastoid muscle;
+3. clavicle;
+4. the lower belly of the omohyoid muscle.

17. Name the anatomical sections of the esophagus?

+1. cervical;
+2. thoracic;
3. diaphragmatic;
+4. abdominal.

18. What is the skeletotopy of the levels of esophageal stenosis?

+1. at the level of C VI;
+2. at the level of the tracheal bifurcation;
+3. at the transition through the diaphragm;
4. at the level of Th XII.

19. Specify the nodes of only the cervical part of the sympathetic trunk?

+1. superior;
+2. middle;

		+3. inferior; 4. stellate. **20. Where are the cervical nodes of the sympathetic nerve trunk located?** 1. on the scalene muscles of the neck; +2. on the long muscles of the head and neck; 3. in front of the fifth fascia of the neck; +4. behind or in the thickness of the fifth fascia of the neck.

Assessment criteria
"Very good" – 91-100% 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 70% correct answers of questions of every level

Interview questions

	Code	**Competence description / name of labor function / name of work activity / text**
S	31.05.03	Dentistry for international students (in English)
C	GPC-13	Is able to achieve objectives of professional activity using information and bibliographic resources, biomedical terminology, as well as information and communication technologies, while observing basic information security procedures
I		**ANSWER THE QUESTIONS**
		General issues of topographic anatomy and operative surgery. 1. N. I. Pirogov - as the founder of operative surgery and topographic anatomy and the anatomical and physiological direction in surgery. 2. Surgical operation: types, stages. 3. Surgical access and surgical technique: requirements for surgical access, criteria for their evaluation; types of surgical techniques; individualization of surgical access and technique. 4. Microsurgical, endovascular, endoscopic operations. 5. Types of surgical instruments, rules for using surgical instruments. 6. Separation and connection of tissues: rules and methods, instruments, suture material. Primary, secondary and delayed suture. 7. Stopping bleeding: types and methods. Indications and rules for ligation of vessels along the length. 8. Fundamentals of the theory of collateral circulation: types of anastomoses, physiological significance in surgery, cava-caval and porto-caval anastomoses. 9. N. I. Pirogov's theory of vascular sheaths and case structure of the extremities. Fascial beds, partitions, cellular spaces, their clinical significance. 10. General principles of primary surgical treatment of wounds. 11. General principles of operations for purulent diseases of soft tissues. 12. Serous membranes: anatomical and physiological features and properties, significance in surgery. 13. Skin grafting: indications, types. 14. Organ and tissue transplantation: methods of organ and tissue preservation, types of transplantation. The concept of heart, kidney, and lung transplantation.

		Topographic anatomy and operative surgery of the head 1. Topographic anatomy of the frontal-parietal-occipital region. 2. Topographic anatomy of the temporal region. 3. Topographic anatomy of the mammillary region, Shipo's triangle. 4. Surgical anatomy of the meninges and venous sinuses. 5. Topographic anatomy of the base of the skull. 6. Features of the blood supply to the soft tissues of the skull. 7. Blood supply to the brain. 8. Topographic anatomy of the lateral region of the face (buccal and parotid-masticatory regions). 9. Topographic anatomy of the deep region of the face. 10. Topography of the facial and trigeminal nerves. 11. Primary surgical treatment of head wounds. Stopping bleeding from the cerebral, meningeal arteries, sinuses. 12. Bone-plastic craniotomy: indications, stages, technique, instruments. 13. Decompression craniotomy: indications, stages, technique, instruments. 14. Facial surgeries for purulent processes: types of incisions, topographic and anatomical rationale. 15. Concept of endovascular surgery. Indications, instruments, technique. **Topographic anatomy and operative surgery of the neck** 1. Fasciae and cellular spaces of the neck, their clinical significance. 2. Topographic anatomy of the suprahyoid region 3. Topographic anatomy of the carotid triangle of the neck. 4. Topographic anatomy of the sternocleidomastoid region. 5. Topographic anatomy of the lateral triangle of the neck. 6. Surgical anatomy of the larynx and trachea. 7. Surgical anatomy of the thyroid gland. 8. Surgical anatomy of the pharynx and esophagus. 9. Features of operations in the neck area, surgical approaches to the neck organs. Incisions for superficial and deep phlegmons of the neck. 10. Exposure and ligation of the carotid arteries. Indications, technique, collateral circulation. 11. Tracheostomy: Indications, types, stages and technique. Possible complications and their prevention. Instrumentation. 12. Thyroid resection: indications, stages, technique. Possible complications and their prevention.

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 shown 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.