

Examination questions for certification in the discipline “Topographic Anatomy and Operative Surgery” for students in the educational program of the specialty in specialty 31.05.01. General Medicine, focus (profile) General Medicine, full-time form of study for the 2024-2025 academic year

No.	Questions for intermediate assessment	Verifiable indicators of competency achievement
1.	Basic operations to restore blood flow in case of vascular damage. Closed thrombectomy , open thrombectomy , autovenous grafting, bypass with synthetic prostheses.	OPK-5.1.1
2.	Topography of the gallbladder and extrahepatic bile ducts (skeletalotopy , syntopy , relationship to the peritoneum, blood supply, innervation, lymphatic drainage).	OPK-5.1.1, PC-1.1.4
3.	Free skin grafting (indications, stages, technique).	OPK-5.1.1
4.	Topography of the hip joint (structural features, capsule, ligaments, blood supply). Roser-Nelaton Line .	OPK-5.1.1, PC-1.1.4
5.	Topographic anatomy of the stomach (holotopy , syntopy , skeletalotopy , ligaments, blood supply, innervation, lymph outflow).	OPK-5.1.1, PC-1.1.4
6.	Suture and plastic surgery of tendons. Primary and secondary tendon suture.	OPK-5.1.1
7.	Topography of the lower leg (borders, muscle-fascial beds, neurovascular bundles, fiber). Position of the foot in case of damage to the common peroneal and tibial nerves.	OPK-5.1.1, PC-1.1.4
8.	Lymphatic system of the neck. Pathways for the outflow of lymph from the organs of the neck.	OPK-5.1.1, PC-1.1.4
9.	Topographic-anatomical rationale for incisions of the anterior abdominal wall.	OPK-5.1.1, PC-1.1.4
10.	Topography of the femoral canal.	OPK-5.1.1, PC-1.1.4
11.	Topography of the cervical trachea and esophagus (syntopy , skeletalotopy , ligaments, blood supply, innervation, lymph outflow).	OPK-5.1.1, PC-1.1.4
12.	Indications and technique of operations for applying an unnatural anus (single-barrel and double-barrel).	OPK-5.1.1, PC-1.1.4
13.	Topography of the lower leg (borders, muscle-fascial beds, neurovascular bundles, fiber). Position of the foot in case of damage to the common peroneal and tibial nerves.	OPK-5.1.1, PC-1.1.4
14.	Topography of the gluteal region (borders, layers, fascial beds, fiber, vessels and nerves, their projection onto the skin).	OPK-5.1.1, PC-1.1.4
15.	Topography of the diaphragm (blood supply, innervation, lymphatic drainage).	OPK-5.1.1, PC-1.1.4
16.	Topography of the armpit. Borders, layers, topography of the neurovascular bundle, ways of spreading pus through the tissue	OPK-5.1.1, PC-1.1.4
17.	Topography of scalene fissures and scalene-vertebral triangle (boundaries, contents).	OPK-5.1.1, PC-1.1.4
18.	Topography of the pancreas (holotopy , skeletalotopy , syntopy , blood supply, innervation, lymph outflow, surgical approaches to the gland).	OPK-5.1.1, PC-1.1.4
19.	Surgical approaches to the heart. Seam of the heart.	OPK-5.1.1, PC-1.1.4, PC-1.1.5
20.	Topography of the shoulder (borders, muscular-fascial beds, topography of neurovascular bundles, paths of spread of pus).	OPK-5.1.1, PC-1.1.4
21.	Parotid-masticatory region. Topography of the parotid gland and its excretory duct.	OPK-5.1.1, PC-1.1.4
22.	Indirect inguinal hernia. Technique of operations.	OPK-5.1.1, PC-1.1.4
23.	Topography of the foot (muscular-fascial beds of the rear and sole, neurovascular bundles, paths of spread of purulent processes).	OPK-5.1.1, PC-1.1.4
24.	Cellular spaces of the neck and their clinical significance.	OPK-5.1.1, PC-1.1.4
25.	Features of gastric resection according to Billroth - I and Billroth - II . Date of the first operation in Russia.	OPK-5.1.1, PC-1.1.4
26.	Topography of the popliteal fossa (borders, layers, neurovascular bundles). Jaubert's fossa . Ways of spread of pus from the fossa.	OPK-5.1.1, PC-1.1.4
27.	Topography of the omental bursa and omental foramen, their clinical significance.	OPK-5.1.1, PC-1.1.4
28.	The concept of coronary artery bypass grafting.	OPK-5.1.1, PC-1.1.4, PC-1.1.5
29.	Topography of the femoral canal.	OPK-5.1.1, PC-1.1.4
30.	Topography of the intercostal space (layers, neurovascular bundle).	OPK-5.1.1, PC-1.1.4
31.	Technique of small intestine resection, types of interintestinal anastomoses.	OPK-5.1.1, PC-1.1.4
32.	Topography of the femoral triangle. Obturator canal, its clinical significance.	OPK-5.1.1, PC-1.1.4
33.	33.Technique of ligation of the external carotid artery, restoration of collateral blood flow after ligation.	OPK-5.1.1, PC-1.1.4
34.	Topography of the inguinal canal (walls, deep and superficial inguinal rings, canal contents).	OPK-5.1.1, PC-1.1.4
35.	Topography of the parietal pleura. Borders, departments, pleural sinuses, blood supply, innervation, lymphatic drainage .	OPK-5.1.1, PC-1.1.4
36.	Technique for fascioplasty amputation of the lower leg in the middle third.	OPK-5.1.1, PC-1.1.4
37.	Topography of the femoral triangle. Femoral adductor canal (Gunterov). Spread of pus throughout the tissue.	OPK-5.1.1, PC-1.1.4

38.	Topography of the heart and pericardium (skeletotopy , syntopy , holotopy , pericardial sinuses, blood supply, innervation, lymph outflow).	OPK-5.1.1, PC-1.1.4
39.	Primary surgical treatment of facial wounds.	OPK-5.1.1, PC-1.1.4
40.	Topography of the cross-section of the shoulder in the middle third.	OPK-5.1.1, PC-1.1.4
41.	Topography of the fronto-parieto-occipital region. Boundaries, features of arterial and venous blood supply. Cellular layers of soft tissues of the cranial vault (clinical significance).	OPK-5.1.1, PC-1.1.4
42.	Vagotomy (indications, types, surgical technique).	OPK-5.1.1, PC-1.1.4
43.	Topography of the submandibular triangle. Pirogov's triangle (boundaries, layers, contents, practical significance).	OPK-5.1.1, PC-1.1.4
44.	Rectum (syntopy , skeletotopy , structural features, blood supply, innervation, lymphatic drainage).	OPK-5.1.1, PC-1.1.4
45.	Topographic-anatomical rationale for rectal examination (sigmoidoscopy).	OPK-5.1.1, PC-1.1.4
46.	Localization of hand phlegmons and surgical techniques for them.	OPK-5.1.1, PC-1.1.4
47.	Topography of the temporal region. Cranial topography: Kronlein diagram .	OPK-5.1.1, PC-1.1.4
48.	Layer-by-layer topography of the anterior -lateral abdominal wall (division into areas, layers, blood supply, innervation, lymphatic drainage).	OPK-5.1.1, PC-1.1.4
49.	Concepts about surgery. Classification, main stages.	OPK-5.1.1
50.	Topography of the transverse cut of the tibia in the middle third.	OPK-5.1.1
51.	Topography of the lungs (division into lobes, zones, segments). Innervation, blood supply, lymph outflow. Topography of the lung root.	OPK-5.1.1, PC-1.1.4
52.	Vascular suture - requirements, methodology, principles of applying a vascular suture, seamless connection of blood vessels.	OPK-5.1.1
53.	Topographic anatomy of the buccal region. Borders, blood supply, innervation, lymphatic drainage .	OPK-5.1.1
54.	Topography of the pelvis. Skeleton, muscles, fascia, tissue spaces, arteries and veins of the pelvis.	OPK-5.1.1,
55.	Operations for penetrating chest wounds. Pneumothorax (open, closed, valve). Drainage of the pleural cavity.	OPK-5.1.1
56.	Collateral blood supply of the upper limb. Scapular arterial circle. Arterial network of the elbow joint.	OPK-5.1.1, PC-1.1.4
57.	Dividing the face into areas. Features of arterial and venous blood supply and their practical significance. Innervation of the face, lymphatic drainage .	OPK-5.1.1, PC-1.1.4
58.	Technique and indications for gastrostomy surgery (according to Witzel , Topver).	OPK-5.1.1,
59.	Topography and function of the facial nerve.	OPK-5.1.1,
60.	The course of the peritoneum. Relation of organs to the peritoneum. Small and large oil seal. Peritoneal bursae: hepatic, pregastric , omental.	OPK-5.1.1
61.	Skin grafting on the feeding pedicle. Indications, technique.	OPK-5.1.1,
62.	Topography of the forearm. Borders, muscular-fascial beds, topography of neurovascular bundles. Pirogov- Paron space .	OPK-5.1.1, PC-1.1.4
63.	Topography and functions of the trigeminal nerve.	OPK-5.1.1
64.	Cholecystectomy (indications, surgical technique).	OPK-5.1.1, PC-1.1.4
65.	Topography of the ulnar fossa (borders, contents).	OPK-5.1.1,
66.	Topography of the larynx (external landmarks, syntopy , skeletotopy , structure, blood supply, innervation).	OPK-5.1.1
67.	Appendectomy using the Volkovich-Dyakonov approach, pararectal incision according to Lenander . Advantages and disadvantages of these cuts. Methods for processing the stump of the process.	OPK-5.1.1, PC-1.1.4
68.	Topography of the white line of the abdomen, umbilical ring, sheath of the rectus abdominis muscles.	OPK-5.1.1, PC-1.1.4
69.	Topography of the spleen (holotopy , syntopy , skeletotopy , ligaments, blood supply, innervation, lymphatic drainage). Surgical approaches to the spleen.	OPK-5.1.1, PC-1.1.4
70.	Felon. Types and localization. Surgical incisions for felons.	OPK-5.1.1, PC-1.1.4
71.	Topography of the deep area of the face (cellular spaces, vessels, nerves).	OPK-5.1.1
72.	Topography of the jejunum and ileum (holotopy , skeletotopy , syntopy , blood supply, innervation, lymphatic drainage). Differences between the small intestine and the large intestine.	OPK-5.1.1, PC-1.1.4
73.	Surgical treatment of mastitis. Topographic justification for the sections used.	OPK-5.1.1, PC-1.1.4
74.	Cross section of the forearm in the middle third.	OPK-5.1.1,
75.	Topography of the mastoid region. Forms of the structure of the mastoid process. Trephination triangle Shipo . Complications when performing trepanation of the appendix.	OPK-5.1.1, PC-1.1.4
76.	Skin grafting with local tissues (indications, technique).	OPK-5.1.1
77.	Topography of the mediastinum (borders, organs). Topography of the thoracic esophagus. Blood supply, localization of portoqual anastomoses .	OPK-5.1.1
78.	Topography of the cecum and appendix (blood supply, innervation, lymphatic drainage).	OPK-5.1.1, PC-1.1.4
79.	Technique of osteoplastic amputation of the femur according to Gritti -Albrecht.	OPK-5.1.1,

80.	Topography of the shoulder joint. Structural features, ligaments, capsule course, blood supply, innervation, lymphatic drainage . Puncture technique.	OPK-5.1.1, PC-1.1.4
81.	Weak spots in the anterior and lateral abdominal wall. Classification of hernias. External abdominal hernia.	OPK-5.1.1, PC-1.1.4
82.	Surgical instruments. Classification. Terms of use.	OPK-5.1.1
83.	Topography of the gluteal region (borders, vessels, nerves, their projection onto the skin). Ways of spread of pus.	OPK-5.1.1, PC-1.1.4
84.	Topographic anatomy of the thyroid and parathyroid glands. Blood supply, topography of recurrent nerves.	OPK-5.1.1, PC-1.1.4
85.	Technique for femoral hernia surgery according to Bassini .	OPK-5.1.1
86.	Topography and structure of the synovial sheaths of the tendons of the palmar surface of the hand and fingers.	OPK-5.1.1, PC-1.1.4
87.	Topography of the kidneys (holotomy , skeletotomy , syntopy , blood supply, innervation, lymphatic drainage).	OPK-5.1.1, PC-1.1.4
88.	Topographic-anatomical substantiation of methods for drainage of the omental bursa.	OPK-5.1.1
89.	Topography of the transverse cut of the thigh at the level of the middle third.	OPK-5.1.1
90.	Topography of the colon (holotomy , skeletotomy , syntopy , blood supply, innervation, lymphatic drainage).	OPK-5.1.1, PC-1.1.4
91.	Algorithm for access to the retroperitoneal space according to Bergman-Israel.	OPK-5.1.1, PC-1.1.4
92.	Topography of the internal base of the skull.	OPK-5.1.1
93.	Topography of the diaphragm (structure, functions, blood supply, innervation). Diaphragm triangles and their clinical significance.	OPK-5.1.1, PC-1.1.4
94.	Tracheostomy . Classification, indications, technique, tools. Possible complications.	OPK-5.1.1, PC-1.1.4, PC-1.1.6, PC-1.1.5
95.	Fascia and cellular spaces of the neck. Clinical significance. Ways of spread of pus.	OPK-5.1.1
96.	Three-stage hip amputation cone -circular method according to Pirogov.	OPK-5.1.1
97.	Topography of the gallbladder and extrahepatic bile ducts.	OPK-5.1.1, PC-1.1.4
98.	Topography of the hand (borders, layers, cellular spaces, vessels). Position of the hand in case of damage to the radial, ulnar and median nerves.	OPK-5.1.1, PC-1.1.4
99.	Topography of the duodenum (holotomy , skeletotomy , syntopy , blood supply, innervation, lymphatic drainage).	OPK-5.1.1, PC-1.1.4
100.	Decompressive craniotomy. Indications. Technique.	OPK-5.1.1
101.	Topography of the knee joint. Structural features, capsule course, ligamentous apparatus, torsions, their clinical significance, joint puncture technique.	OPK-5.1.1, PC-1.1.4
102.	Topography of vessels and nerves of the retroperitoneal space: aorta, inferior vena cava, retroperitoneal lymph nodes, lumbar sympathetic trunk, celiac plexus.	OPK-5.1.1
103.	Methods for examining the biliary system. Topographic-anatomical justification.	OPK-5.1.1
104.	The structure of the elbow joint, blood supply, puncture technique.	OPK-5.1.1, PC-1.1.4
105.	Topography of vessels and nerves of the posterior mediastinum: thoracic aorta, azygos and semi-gypsy veins, sympathetic trunk and thoracic lymphatic duct.	OPK-5.1.1
106.	Intestinal suture technique. Seam of Albert, Lambert , Schmieden .	OPK-5.1.1
107.	Topography of the mammary gland (holotomy , skeletotomy , structure, blood supply, innervation, lymphatic drainage).	OPK-5.1.1, PC-1.1.4
108.	Topography of the bladder, ureters, urethra (syntopy , skeletotomy , structure, blood supply, innervation, lymphatic drainage).	OPK-5.1.1, PC-1.1.4
109.	Rib resection (indications, technique).	OPK-5.1.1
110.	Topography of the carotid triangle of the neck (borders, layers, topography of the neurovascular bundle).	OPK-5.1.1, PC-1.1.4
111.	Floors of the pelvis (boundaries, contents). Clinical significance of formations of the pelvic peritoneum.	OPK-5.1.1
112.	Operative kidney surgery. Nephrectomy , pyelotomy .	OPK-5.1.1, PC-1.1.4
113.	Topography of the shoulder (borders, muscle-fascial beds, neurovascular bundles, fiber course).	OPK-5.1.1
114.	Fascia of the neck and its clinical significance.	OPK-5.1.1, PC-1.1.4
115.	Topography of the popliteal fossa (borders, layers, topography of the neurovascular bundle). Ways of spread of pus.	OPK-5.1.1, PC-1.1.4
116.	Meninges of the brain. Sinuses of the dura mater. Intershell spaces.	OPK-5.1.1
117.	Stopping bleeding from parenchymal organs.	OPK-5.1.1
118.	Topographic anatomy of the thyroid and parathyroid glands (syntopy , blood supply, innervation, lymphatic drainage).	OPK-5.1.1, PC-1.1.4
119.	Projection of the abdominal organs onto the anterior -lateral wall of the abdomen.	OPK-5.1.1, PC-1.1.4
120.	Perinephric novocaine blockade according to A.V. Vishnevsky.	OPK-5.1.1, PC-1.1.4
121.	Dividing the face into areas, features of arterial and venous blood supply, practical significance.	OPK-5.1.1, PC-1.1.4
122.	Topography of the lumbar region (fascial-muscular bed, topography and clinical significance of the Lesgaft and Petit triangles).	OPK-5.1.1, PC-1.1.4

123.	Access algorithm according to Volkovich-Dyakonov.	OPK-5.1.1
124.	Topography of the deltoid and scapular regions (borders, muscular-fascial beds, neurovascular bundles, paths of spread of pus).	OPK-5.1.1
125.	Topography of the canals and sinuses of the lower floor of the abdominal cavity, paths of distribution of exudate and blood.	OPK-5.1.1
126.	Primary surgical treatment of head wounds, features of treatment of facial wounds.	OPK-5.1.1
127.	Topography of the liver (holotomy , skeletotomy , syntopy , ligaments, segments, features of blood supply, innervation, lymphatic drainage).	OPK-5.1.1, PC-1.1.4
128.	Topography of the uterus and its appendages (skeletotomy , syntopy , structure, blood supply, innervation, lymphatic drainage).	OPK-5.1.1, PC-1.1.4
129.	Osteoplastic amputation of the leg according to Pirogov.	OPK-5.1.1, PC-1.1.4
130.	Features of the structure of the bones of the vault and base of the skull. Localization and diagnosis of fractures. Possible complications.	OPK-5.1.1, PC-1.1.4
131.	Topographic and anatomical basis for portal hypertension. Kinds. Localization of portocaval anastomoses . Principles of surgical treatment.	OPK-5.1.1, PC-1.1.4
132.	Definition of endoscopic surgery. Stages of development. Hardware and tools. Advantages of endoscopic surgery.	OPK-5.1.1, PC-1.1.4
133.	Topography of the hand (borders, layers, cellular spaces, vessels).	OPK-5.1.1, PC-1.1.4
134.	Topography of the medial neurovascular bundle of the neck (projection line, syntopy , holotomy , level of bifurcation of the common carotid artery, reflexogenic zones, distinctive features of the external and internal carotid arteries in the surgical wound).	OPK-5.1.1, PC-1.1.4
135.	Osteoplastic craniotomy. Indications, technique.	OPK-5.1.1
136.	Cross section of the shoulder in the middle third.	OPK-5.1.1
137.	Topography of the fronto-parieto-occipital region. Features of arterial and venous blood supply. Cellular layers of soft tissues of the cranial vault.	OPK-5.1.1
138.	Technique of vagosympathetic blockade according to A.V. Vishnevsky.	OPK-5.1.1, PC-1.1.4
139.	Topography of the transverse cut of the tibia in the middle third.	OPK-5.1.1
140.	Lymphatic system of the mammary gland. Pathways for lymph outflow.	OPK-5.1.1, PC-1.1.4
141.	Kocher access to the organs of the upper abdominal cavity.	OPK-5.1.1
142.	Topographic anatomy of the buccal region (borders, blood supply, innervation, lymphatic drainage).	OPK-5.1.1
143.	Topography of the peritoneum, properties of the peritoneum. Relationship of the abdominal organs to the peritoneum.	OPK-5.1.1
144.	Algorithm for oblique transverse access S.P. Fedorov to the organs of the upper floor of the abdominal cavity.	OPK-5.1.1
145.	Topography and function of the trigeminal nerve.	OPK-5.1.1
146.	Topography of the thoracic esophagus. Division into sections, their syntopy , blood supply, locations of portocaval anastomoses .	OPK-5.1.1
147.	PSO of neck wounds. Typical surgical incisions for abscesses and cellulitis of the neck.	OPK-5.1.1, PC-1.1.4
148.	Collateral circulation of the lower limb (collaterals in the thigh, arterial network of the knee joint).	OPK-5.1.1
149.	Topography of the retroperitoneal space (borders, layers, fascia, cellular spaces).	OPK-5.1.1, PC-1.1.4
150.	Technique for performing strumectomy according to Kocher and Nikolaev.	OPK-5.1.1, PC-1.1.4

Discussed at a meeting of the Department of Operative Surgery and Topographic Anatomy on June 03, 2024, record No. 10.

Head of the department

A.A. Vorobyev

**Tasks to assess the acquisition of practical skills for certification
in the discipline "Topographic anatomy and operative surgery"
for students in the specialty educational program in specialty 31.05.01 General Medicine,
full-time form of study
for the 2023-2024 academic year**

1. Knitting the main types of surgical knots: simple, naval, double surgical.
2. Application of an interrupted suture.
3. Making a separate mattress seam.
4. Making a continuous twist seam.
5. Making a continuous mattress seam.
6. Applying a Multanovsky suture .
7. Removal of individual stitches. Ligation of a vessel in the wound. Vessel ligation with suturing.
8. Performing Albert's intestinal suture.
9. Performing an intestinal Schmieden suture .
10. Lambert intestinal suture .
11. Performing resuscitation measures in case of cardiac and respiratory arrest.
12. Puncture of large joints: shoulder, elbow, hip, knee.
13. Performing subcutaneous and intramuscular injections.
14. Performing a pleural puncture.
15. Performing pericardial puncture.
16. Application of a vascular suture according to Carrel .
17. Tendon suture.
18. Nerve suturing.
19. Application of interintestinal anastomoses (end-to-end, side-to-side, end-to-side).
20. Gastrostomy placement .
21. Probing of the stomach and duodenum.
22. Intubation of the larynx and trachea.
23. Performing a cervical vagosympathetic blockade.
24. Skin grafting with local tissues.
25. Bladder catheterization in women and men.
26. Possession of general clinical examination skills (palpation, percussion) based on knowledge of topographic anatomy.
27. Interpretation of the results of radiological methods for studying common surgical diseases.

Considered at a meeting of the Department of Operative Surgery and Topographic Anatomy on June 26, 2023, protocol No. 13.

Head of the department



A.A. Vorobiev