

Practical skills for lessons

Section 1. Introduction. Topographic anatomy and operative surgery of the limbs.

Topic 1. Introduction. Subject and tasks of topographic anatomy and operative surgery.

General surgical technique.

1. Abdominal scalpel.
2. In what position is the scalpel when making an incision in the skin, subcutaneous tissue and superficial fascia?
3. What determines the choice of suture material for connecting different layers of a surgical wound?
4. Describe the technique for finally stopping bleeding from the vessels of the subcutaneous base using a curved Billroth forceps and ligature.
5. Describe the technique for finally stopping bleeding from blood vessels.
6. Apply and remove a separate interrupted suture of the skin and subcutaneous base.
7. Perform a separate interrupted suture of the native fascia.
8. Perform a U-shaped suture on the skeletal muscle.
9. Describe the technique for performing dissection of the skin, subcutaneous tissue and superficial fascia.
10. Describe the technique for performing dissection of the native fascia using a grooved probe.
11. Where should the knot be placed in relation to the skin connection line?
12. Tie a sea knot (by hand).
13. Tie a surgical knot (apodactyl method).
14. Tie a surgical knot (by hand).
15. Billroth hemostatic clamp (straight/curved).
16. Kocher hemostatic clamp (straight/curved).
17. Mosquito clamp (straight/curved).
18. Button probe.
19. Atraumatic curved needle (cutting/piercing).
20. Curved surgical stabbing needle.
21. Hegar needle holder.
22. How is a hemostatic clamp applied to a bleeding vessel?
23. How should the needle puncture site be positioned when applying an interrupted skin suture?
24. What instruments are needed to remove an interrupted skin suture?
25. What instruments are needed to remove an interrupted skin suture?
26. Which layers of the surgical wound are opened with plate hooks?
27. What scalpel is used to cut the skin, subcutaneous tissue and superficial fascia?
28. Forceps (straight/curved).
29. Ligature needle right/left (Deschana/Deschamps).
30. Scissors, pointed, sharp-blunt, straight.
31. Blunt scissors, curved along the plane (Cooper).
32. Anatomical tweezers.
33. Anatomical tweezers.
34. Plate hook (Farabefa).
35. Demonstrate the position of the Billroth forceps in the hand in relation to the bleeding vessel of the subcutaneous base.

36. Demonstrate the position of anatomical tweezers in the hand.
37. Demonstrate the rules for fixing a ligature in a surgical, curved, cutting needle.
38. Demonstrate the rules for fixing a surgical, curved needle (cutting/piercing) in a Hegar needle holder.
39. Demonstrate the technique of inserting a grooved probe under the fascia.
40. For what purpose, when making an incision, is the skin fixed with the thumb and forefinger of the left hand?
41. Scalpel with removable blade.
42. Describe methods of tying knots.
43. Indicate the correct location of the needle when applying an interrupted skin suture.
44. Four-prong blunt hook (Volkmann).

Topic 2. Topographic anatomy of the upper limb. Part 1

1. Anterior border of the axillary region
2. Posterior border of the axillary region
3. Internal (conditional) border of the axillary region
4. fossa axillaris
5. cavum, s. spatium axillare
6. m. pectoralis major
7. m. pectoralis minor
8. m. subscapularis
9. m. teres major
10. foramen quadrilaterum
11. foramen trilaterum
12. n. axillaris
13. a. axillaris
14. v. axillaris
15. trigonum clavipectoriale
16. trigonum pectorale
17. trigonum subpectoriale
18. m. subclavius
19. plexus brachialis
20. a. thoracica suprema
21. a. thoracoacromialis
22. m. deltoideus
23. a. circumflexa scapulae
24. a. circumflexa humeri anterior
25. a. circumflexa humeri posterior
26. sulcus deltoideopectoralis
27. trigonum deltoideopectoriale
28. fossa infraclavicularis
29. spatium subdeltoideum
30. fossa infrapinnata
31. fossa infrapinnata
32. fascia deltoidea
33. supraspinous osteofibrous bed
34. infrapinnatus osteofibrous bed

35. bursa subdeltoidea
36. bursa subacromialis
37. bursa m. subscapularis
38. bursa subcoracoidea
39. labrum glenoidale scapulae
40. humerus
41. caput humeri
42. collum anatomicum humeri
43. collum chirurgicum humeri
44. tuberculum majus humeri
45. sulcus intertubercularis
46. sulcus nervi radialis
47. tuberositas deltoidea
48. condylus humeri
49. capitulum humeri
50. trochlea humeri
51. fossa olecrani
52. fossa coronoidea
53. fossa radialis
54. epicondylus medialis
55. sulcus nervi ulnaris
56. epicondylus lateralis
57. lig. coracohumerale
58. v. cephalica
59. v. basilica
60. septum intermusculare laterale
61. septum intermusculare mediale
62. m. coracobrachialis
63. m. biceps brachii
64. m. brachialis
65. m. brachioradialis
66. m. triceps
67. sulcus bicipitalis lateralis
68. sulcus bicipitalis medialis
69. n. cutaneus antebrachii medialis
70. n. cutaneus brachii lateralis
71. a. brachialis
72. n. medianus
73. projection line of the main SNP of the anterior region of the shoulder (a. et v. brachiales, n. medianus)
74. n. musculocutaneus
75. projection line n. musculocutaneus
76. n. ulnaris in the upper third of the shoulder
77. projection line n. ulnaris in the lower third of the shoulder
78. n. radialis
79. a. profunda brachii

80. canalis spiralis
81. projection line n. radialis and a. profunda brachii in the posterior region of the shoulder
82. projection line n. radialis in the lower third of the shoulder

Topic 3. Topographic anatomy of the upper limb. Part 2

1. aponeurosis bicipitalis
2. a. radialis
3. n. medianus in the ulnar region
4. n. radialis in the ulnar area
5. exit point n. cutaneus antebrachii medialis
6. exit point n. cutaneus antebrachii lateralis
7. bursa subcutanea olecrani
8. m. brachioradialis
9. m. supinator
10. m. pronator teres
11. m. flexor carpi radialis
12. m. palmaris longus
13. m. flexor carpi ulnaris
14. m. flexor digitorum superficialis
15. sulcus cubitalis posterior medialis
16. v. basilica
17. v. cephalica
18. v. intermedia antebrachii
19. fascia antebrachii
20. m. flexor digitorum profundus
21. m. flexor pollicis longus
22. m. pronator quadratus
23. cellular space Pirogov – Parony
24. a. radialis in the middle third of the forearm
25. r. superficialis n. radialis
26. projection line r. superficialis n. radialis in the upper third of the forearm
27. projection line r. superficialis n. radialis in the lower third of the forearm
28. projection line a. radialis
29. a. ulnaris
30. n. ulnaris
31. projection line n. ulnaris
32. projection line a. ulnaris
33. projection line n. medianus in the forearm area
34. a. interossea anterior
35. projection line a. interossea anterior
36. n. cutaneus antebrachii posterior
37. m. extensor carpi radialis longus
38. m. extensor carpi radialis brevis
39. m. extensor digitorum
40. m. extensor digiti minimi
41. m. extensor carpi ulnaris
42. m. supinator

43. m. abductor pollicis longus
45. m. extensor pollicis brevis
46. m. extensor pollicis longus
47. m. extensor indicis
48. cellular space of the posterior forearm (deep)
49. ossa carpi
50. ossa metacarpi
44. thenar
51. hypothenar
52. anatomical snuff box
53. aponeurosis palmaris
54. commissural openings
55. lateral fascial bed
56. middle fascial bed
57. subtendinous fissure of the palm
58. subgaleal cellular fissure of the palm
59. m. lumbricalis
60. retinaculum flexorum
61. arcus palmaris superficialis
62. arcus palmaris profundus
63. dorsal subgaleal cellular space of the palm
64. finger extensor tendons
65. digital flexor tendons
66. subcutaneous tissue space of the dorsum of the hand
67. subgaleal cellular space of the dorsal surface of the hand
68. a. metacarpeae dorsales
69. a. digitales dorsales
70. projection of the “forbidden zone” of the hand according to Kanavel
71. n. medianus
72. projection of the superficial palmar arterial arch
73. projection of the deep palmar arterial arch

Topic 4. Topographic anatomy of the lower limb. Part 1

1. fascia glutea
2. m. gluteus maximus
3. m. gluteus medius
4. m. piriformis
5. m. gemellus superior
6. m. gemellus inferior
7. m. obturatorius internus
8. m. gluteus minimus
9. foramen suprapiriforme
10. foramen infrapiriforme
11. lig. sacrospinale
12. lig. sacrotuberale
13. foramen ischiadica majus
14. foramen ischiadica minus

15. a. glutea superior
16. n. gluteus superior
17. projection of the superior gluteal neurovascular bundle
18. n. ischiadicus
19. a. glutea inferior
20. n. gluteus inferior
21. a. pudendae internae
22. n. pudendus
23. n. cutaneus femoris posterior
24. projection of the infrapiriform foramen
25. acetabulum
26. caput ossis femoris
27. labrum acetabulare
28. lig capitis femoris
29. zona orbicularis
30. lig. iliofemorale
31. lig. pubofemorale
32. lig. ischiofemorale
33. Roser-Nelaton line
34. bursa iliopectinea
35. r. femoralis n. genitofemoralis
36. a. epigastrica superficialis
37. a. circumflexa ilium superficialis
38. v. saphena magna
39. fascia lata
40. hiatus saphenus
41. fascia cribrosa
42. m. quadriceps femoris
43. m. rectus femoris
44. m. vastus lateralis
45. m. vastus medialis
46. m. vastus intermedius
47. m. sartorius
48. m. adductor longus
49. m. adductor brevis
50. m. adductor magnus
51. m. gracilis
52. trigonum femorale
53. sulcus femoralis anterior
54. lacuna musculorum
55. lacuna vasorum
56. arcus iliopectineus
57. m. iliopsoas in the muscle lacuna
58. n. femoralis
59. v. femoralis
60. a. femoralis

61. a. profunda femoris
62. lig. pectineale Cooperi
63. lig. lacunare Gimbernati
64. Pirogov-Rosenmüller lymph node
65. annulus femoralis
66. a. circumflexa femoris medialis
67. a. circumflexa femoris lateralis
68. n. saphenus
69. sulcus obturatorius
70. internal and external openings of the obturator canal
71. n. obturatorius
72. a. obturatoria
73. canalis femoropopliteus, s. adductorius
74. superior opening of canalis femoropopliteus, s. adductorius
75. anterior opening of canalis femoropopliteus, s. adductorius
76. inferior opening of canalis femoropopliteus, s. adductorius
77. lamina vastoadductoria
78. septum intermusculare mediale
79. a. genus descendens within canalis femoropopliteus, s. adductorius
80. septum intermusculare femoris laterale
81. septum intermusculare femoris posterior
82. m. semimembranosus
83. m. semitendinosus
84. m. biceps femoris
85. n. peroneus communis on the thigh
86. n. tibialis on the thigh
87. projection of the femoral artery
88. projection of the femoral nerve
89. projection of the sciatic nerve in the upper third of the thigh
90. projection of the sciatic nerve in the middle third of the thigh
91. projection of the sciatic nerve in the lower third of the thigh
92. lig. popliteum obliquum
93. m. popliteus
94. v. poplitea
95. a. poplitea
96. projection of the neurovascular bundle of the popliteal fossa
97. Jaubert's fossa
98. plexus lumbalis
99. n. iliohypogastricus
100. n. ilioinguinalis
101. n. genitofemoralis
102. plexus sacralis
103. n. cutaneus femoris posterior
104. n. ischiadicus

Topic 5. Topographic anatomy of the lower limb. Part 2

1. v. saphena magna on the lower leg

2. v. saphena parva
3. n. saphenus superficialis
4. fascia cruris
5. m. tibialis anterior
6. m. extensor digitorum longus
7. m. extensor hallucis longus
8. a. tibiales anterior
9. v. tibiales anterior
10. n. peroneus profundus
11. n. peroneus superficialis
12. projection n. peroneus superficialis
13. projection a. tibiales anterior
14. projection n. peroneus profundus
15. m. peroneus longus
16. m. peroneus brevis
17. canalis musculoperoneus superior
18. canalis musculoperoneus inferior
19. Pirogov canal on the lower leg
20. m. gastrocnemius
21. m. plantaris
22. m. soleus
23. Achille's tendon
24. m. tibialis posterior
25. m. flexor digitorum longus
26. m. flexor hallucis longus
27. a. peronea within the Gruber Canal
28. lig. transversum genus
29. lig. cruciatum anterius
30. lig. cruciatum posterius
31. lig. patellae
32. lig. collaterale tibiale
33. lig. collaterale fibulare
34. lig. popliteum obliquum
35. lig. popliteum arcuatum
36. recessus genus superior (articulatio genus)
37. recessus genus anteriores superiores medialis (articulatio genus)
38. recessus genus anteriores superiores lateralis (articulatio genus)
39. recessus genus anteriores inferiores medialis (articulatio genus)
40. recessus genus anteriores inferiores lateralis (articulatio genus)
41. recessus genus posteriores superiores medialis (articulatio genus)
42. recessus genus posteriores superiores lateralis (articulatio genus)
43. a. genus descendens
44. a. reccurrentes tibiales anterior
45. a. reccurrentes tibiales posterior
46. a. circumflexae fibulae
47. n. peroneus communis

48. bursa suprapatellaris
49. bursa prepatellaris subcutanea
50. bursa prepatellaris subfascialis
51. bursa prepatellaris subtendinea
52. retinaculum mm. extensorum superiorum
53. retinaculum mm. extensorum inferiorum
54. retinaculum mm. flexorum
55. canalis malleolaris
56. canalis calcaneus
57. retinaculi mm. peroneorum superiorum
58. retinaculi mm. peroneorum inferiorum
59. lig. deltoideum
60. lig. talofibulare anterius
61. lig. talofibulare posterius
62. lig calcaneofibulare
63. projection of the joint space of the ankle joint
64. rete venosum dorsalis pedis
65. m. extensor hallucis brevis on the foot
66. m. extensor digitorum brevis on the foot
67. a. dorsalis pedis
68. a. arcuata
69. aa. metatarsae dorsales
70. aa. digitales dorsales
71. a. metatarsae dorsalis prima
72. r. plantaris profundus
73. projection a. dorsalis pedis
74. aponeurosis plantaris
75. m. abductor hallucis
76. m. flexor hallucis brevis
77. m. flexor hallucis longus
78. m. abductor digiti minimi
79. m. flexor digiti minimi
80. m. opponens digiti minimi
81. m. flexor digitorum brevis
82. m. quadratus plantae
83. m. flexor digitorum longus
84. mm. lumbricales
85. sulcus plantaris medialis
86. sulcus plantaris lateralis
87. a. plantaris medialis
88. n. plantaris medialis
89. a. plantaris lateralis
90. n. plantaris lateralis
91. arcus plantaris
92. projection of the medial plantar neurovascular bundle
93. projection of the lateral plantar neurovascular bundle

94. subgaleal cellular fissure of the foot
95. superficial cellular fissure of the foot
96. deep cellular fissure of the foot

Topic 6. Operations on blood vessels, nerves and tendons.

1. Development of the Carrel continuous vascular suture technique.
2. Practicing the technique of tendon sutures according to Lange, Cuneo, Bennel.
3. Practicing the nerve suture technique.

Topic 7. Operations for purulent diseases of soft tissues and joints of the extremities.

1. Performing (simulation) of conduction anesthesia according to A.I. Lukashevich - M. Oberst, according to G. Brown - E.V. Usoltseva.
2. Making (simulation) of incisions for various types of panaritium and phlegmon of the hand.

Topic 8. Bone operations. Amputations.

- No practical skills for the lesson

Section 2. Topographic anatomy and operative surgery of the head

Topic 9. Topographic anatomy and operative surgery of the brain.

1. a. ophthalmica
2. a. supratrochlearis
3. n. frontalis
4. a. supraorbitalis
5. n. supraorbitalis
6. projection of the neurovascular bundle of the frontal region
7. a. temporalis superficialis
8. n. auriculotemporalis
9. projection of the neurovascular bundle of the parietal region
10. a. auricularis posterior
11. n. auricularis posterior
12. projection of the neurovascular bundle of the occipital region (a. et n. auricularis posterior)
13. a. occipitalis
14. n. occipitalis major
15. projection of the neurovascular bundle of the occipital region (a. occipitalis, n. occipitalis major)
16. fossa temporalis
17. fossa infratemporalis
18. Shipo triangle
19. linea temporalis
20. cellulae mastoideae
21. foramen mastoideum
22. antrum mastoideum
23. projection of the facial nerve
24. sinus sigmoideus projection
25. projection of a. meningea media
26. projection of the anterior branch of the middle meningeal artery
27. projection of the central sulcus (Rolandova)
28. projection of the lateral fissure (Sylvian)
29. m. masseter
30. basis cranii interna

31. fossae cranii anterior
32. ala minor ossis sphenoidalis
33. crista galli
34. foramen caecum
35. sinus sagittalis superior
36. sulcus sinus sagittalis superioris
37. fossae cranii media
38. canalis opticus
39. fissura orbitalis superior
40. foramen rotundum
41. foramen ovale
42. foramen spinosum
43. foramen lacerum
44. foramen caroticum internum
45. hiatus canalis nervi petrosi majoris
46. hiatus canalis nervi petrosi minoris
47. fossae cranii posterior
48. clivus
49. eminentia cruciformis
50. foramen magnum
51. foramen jugulare
52. canalis hypoglossalis
53. porus acusticus internus
54. meatus acusticus internus
55. foramen mastoideum
56. dura mater encephali
57. spatium subdurale
58. falx cerebri
59. falx cerebelli
60. tentorium cerebelli
61. pericranium
62. processus mastoideus

Topic 10. Topographic anatomy and operative surgery of the facial part of the head.

1. a. et v. facialis
2. n. facialis
3. projection of the exit site of n. facialis on the soft tissues of the face
4. fascia parotideomasseterica
5. ductus parotideus
6. glandula parotis
7. fossa retromandibularis
8. a. carotis externa
9. a. maxillaris
10. a. transversa faciei
11. n. auriculotemporalis
12. articulatio temporomandibularis
13. fossa infratemporalis

14. corpus adiposum buccae Bichat
15. fascia buccopharyngea
16. m.pterygoideus lateralis
17. m.pterygoideus medialis
18. spatium temporoptyergoideum
19. spatium interptyergoideum
20. projection of rr. temporales (facial nerve)
21. projection of rr. zygomatici (facial nerve)
22. projection of rr. buccales (facial nerve)
23. projection of r. marginalis mandibularis (facial nerve)
24. projection of r. colli (facial nerve)
25. fossa infratemporalis
26. n. lingualis
27. n. alveolaris inferior
28. fossa pterygopalatina
29. foramen infraorbitale maxillae
30. processus zygomaticus ossis frontalis
31. fossa glandulae lacrimalis ossis frontalis
32. os nasale
33. fissura orbitalis inferior
34. facies orbitalis maxillae
35. tuber maxillae
36. sulcus lacrimalis maxillae
37. hiatus maxillae
38. processus frontalis maxillae
39. processus zygomaticus maxillae
40. processus palatinus maxillae
41. lamina perpendicularis ossis palatini
42. lamina horizontalis ossis palatini
43. corpus mandibulae
44. protuberantia mentalis mandibulae
45. fossa digastrica mandibulae
46. linea mylohyoidea mandibulae
47. arcus alveolaris mandibulae
48. angulus mandibulae
49. foramen mentale
50. ramus mandibulae
51. tuberositas masseterica mandibulae
52. tuberositas pterygoidea mandibulae
53. incisura mandibulae
54. processus condylaris mandibulae
55. processus coronoideus mandibulae
56. corpus ossis hyoidei
57. choanae
58. palatum (durum) osseum
59. canalis incisivus

Section 3. Topographic anatomy and operative neck surgery

Topic 11. Topographic anatomy and operative neck surgery.

1. trigonum cervicis mediale
2. regio suprahyoidea
3. trigonum submandibulare
4. trigonum submentale
5. regio infrahyoidea
6. m. omohyoideus
7. trigonum caroticum
8. trigonum omotracheale
9. trigonum cervicis laterale
10. trigonum omotrapezoideum
11. regio sternocleidomastoidea
12. m. platysma
13. a. carotis communis
14. spatium interaponeuroticum suprasternale
15. spatium glandulae thyroideae
16. glandula thyroidea
17. spatium submandibulare
18. saccus glandula submandibularis
19. spatium pretracheale
20. a. carotis communis on the neck
21. v. jugularis interna
22. v. jugularis externa
23. n. occipitalis minor
24. n. transversus colli
25. nn. supraclaviculares
26. n. vagus on the neck
27. a. subclavia
28. a. vertebralis
29. truncus thyrocervicalis
30. n. hypoglossus
31. Pirogov triangle
32. projection of the neurovascular bundle of the medial triangle of the neck
33. truncus sympaticus in the neck area
34. a. thyroidea superior
35. trigonum scalenovertbrale
36. ductus thoracicus
37. m. scalenus anterior
38. n. phrenicus in the neck area
39. n. laryngeus recurrens dexter
40. a. suprascapularis in the neck area
41. plexus cervicalis
42. plexus brachialis
43. fossa supraclavicularis major
44. spatium interscalenum

45. cartilago cricoidea
46. epiglottis
47. aditus laryngis
48. fornix pharyngis
49. ostium pharyngeum tubae auditivae
50. tonsilla palatina
51. tonsilla tubaria
52. tonsilla pharyngealis
53. tonsilla lingualis
54. pars cervicalis esophagei
55. spatium retroviscerale

Section 4. Topographic anatomy and operative surgery of the thoracic wall and thoracic cavity

Topic 12. Topographic anatomy and operative surgery of the thoracic wall

1. clavicle
2. costae
3. arcus costalis
4. sternum
5. processus xiphoideus
6. processus coracoideus
7. incisura jugularis
8. linea mediana anterior
9. linea sternalis
10. linea parasternalis dextra et sinistra
11. linea medioclavicularis
12. linea axillaris anterior
13. linea axillaris media
14. linea axillaris posterior
15. linea paravertebralis dextra et sinistra
16. linea vertebralis dextra et sinistra
17. linea mediana posterior
18. a. thoracica interna
19. a. thoracica lateralis
20. a. thoracoacromialis
21. fascia pectoralis
22. fascia diaphragmatica
23. m. pectoralis major
24. m. pectoralis minor
25. spatium subpectorale superficialis
26. spatium subpectorale profundum
27. musculi intercostales externi
28. musculi intercostales interni
29. m. serratus anterior
30. fascia endothoracica
31. pleura parietalis
32. mamma

33. papilla mammae
34. areola mammae
35. Zorgius signal node
36. Bartels knot
37. place of puncture needle insertion for pneumothorax
38. place of insertion of a puncture needle for pleuritis
39. spatium intercostale
40. sulcus costalis

Topic 13. Topographic anatomy and operative surgery of the thoracic cavity. Part 1

- No practical skills for the lesson

Topic 14. Topographic anatomy and operative surgery of the thoracic cavity. Part 2

1. pars diaphragmatica pericardii
2. pars sternocostalis pericardii
3. partes mediastinales pericardii
4. n. phrenicus
5. aorta thoracica
6. sinus obliquus pericardii
7. facies posterior atrii sinistri
8. vena cava inferior
9. sinus transversus pericardii
10. truncus pulmonalis
11. vena cava superior
12. ventriculus sinister
13. ventriculus dexter
14. recessus inferior pericardii (sinus obliquus)
15. recessus aorticus pericardii
16. facies anterior (sternocostalis) cordis
17. facies inferior (diaphragmatis) cordis
18. facies posterior (vertebralis) cordis
19. a. pulmonalis
20. auricula sinistra cordis
21. auricula dextra cordis
22. a. coronaria dextra
23. a. coronaria sinistra
24. bronchus principalis dexter
25. bronchus principalis sinister
26. bronchus lobaris
27. pulmones
28. lobus inferior sinister
29. lobus superior dexter
30. lobus medialis dexter
31. lobus inferior dexter
32. apex pulmonis
33. recessus costodiaphragmaticus anterior
34. recessus costomediastinalis posterior
35. recessus phrenicomediastinalis

36. recessus costodiaphragmaticus posterior
37. fissura obliqua pulmonis
38. fissure horizontalis pulmonis
39. hilus pulmonis
40. pars descendens aortae
41. lig. pulmonale
42. arcus aortae
43. vena azygos
44. v. hemiazygos
45. ductus thoracicus
46. oesophagus
47. trachea
48. bifurcatio tracheae
49. radix pulmonis dexter
50. radix pulmonis sinister
51. Pericardial puncture point according to Marfan
52. Pericardial puncture point according to Larrey

Section 5. Topographic anatomy and operative surgery of the abdominal wall and abdominal cavity.

Topic 1. Topographic anatomy of the anterolateral abdominal wall

1. linea bicostalis
2. linea bispinalis
3. epigastrium
4. regio hypochondriaca dextra
5. regio hypochondriaca sinistra
6. mesogastrium
7. regio lateralis dextra
8. regio lateralis sinistra
9. regio umbilicalis
10. hypogastrium
11. regio inguinalis dextra
12. regio inguinalis sinistra
13. m. rectus abdominis
14. m. pyramidalis
15. m. obliquus externus
16. m. obliquus internus
17. m. transversus abdominis
18. m. psoas major
19. m. quadratus lumborum
20. a. epigastrica superficialis
21. a. circumflexa ilium superficialis
22. a. circumflexa ilium profunda
23. a. intercostalis
24. a. lumbales
25. aa. pudendae externae
26. nn. intercostalis

27. n. iliohypogastricus
28. n. ilioinguinalis
29. ramus genitalis n. genitofemoralis
30. lamina anterior vaginae m. recti abdominis
31. lamina posterior vaginae m. recti abdominis
32. linea alba abdominis
33. ligamentum inguinale
34. fascia transversalis
35. canalis inguinalis
36. anulus inguinalis superficialis
37. anulus inguinalis profundus
38. anulus umbilicalis
39. fibrae intercrurales
40. lig. reflexum
41. anulus femoralis
42. anulus umbilicalis
43. linea semilunaris, s. Spigelii
44. fossa inguinalis lateralis
45. fossa inguinalis medialis
46. plica umbilicalis lateralis
47. plica umbilicalis medialis
48. plica umbilicalis mediana
49. fossa supravesicalis
50. inguinal space
51. lacuna vasorum
52. lacuna musculorum
53. lig. pectineale s. Cooperi
54. ligamentum lacunare
55. hiatus saphenus
56. urachus

Topic 2. Operations for external abdominal hernias.

- No practical skills for the lesson

Topic 3. Topographic anatomy of the upper abdominal cavity

1. omentum majus
2. mesocolon transversum
3. canalis lateralis dexter
4. canalis lateralis sinister
5. lig. phrenicocolicum
6. sinus mesentericus dexter
7. sinus mesentericus sinister
8. bursa omentalis
9. foramen epiploicum
10. bursa hepatica dextra
11. bursa hepatica sinistra
12. bursa pregastrica
13. lig. hepatoduodenale

14. lig. hepatogastricum
15. lig. hepatorenale
16. lig. gastrophrenicum
17. lig. phrenicooesophageum
18. spatium retroperitoneale
19. lig. gastrolienale
20. lig. gastrocolicum
21. lig. gastropancreaticum
22. lig. phrenicolenale
23. lig. phrenicocolicum
24. lig. duodenorenale
25. lig. suspensorium duodeni s. lig. Treitz
26. lig. pancreaticolienale
27. plica duodenalis superior
28. plica paraduodenalis
29. plica duodenalis inferior
30. recessus duodenalis superior
31. recessus paraduodenalis
32. recessus duodenalis inferior
33. recessus retroduodenalis
34. recessus ileocecalis superior
35. recessus ileocecalis inferior
36. recessus retrocecalis
37. recessus intersigmoideus
38. omentum minus
39. omentum majus
40. gaster, ventriculus
41. ostium cardiacum gastrici
42. curvatura minor gastrici
43. curvatura major gastrici
44. paries anterior gastrici
45. paries posterior gastrici
46. incisura cardiaca gastrici
47. pars cardiaca gastrici
48. fundus ventriculi
49. corpus ventriculi
50. 73.pylorus ventriculi
51. sphincter pylori
52. truncus celiacus
53. a. gastrica sinistra
54. a. gastrica dextra
55. a. gastroepiploica dextra
56. a. gastroepiploica sinistra
57. aa. gastricae breves
58. plexus celiacus
59. pars horizontalis

60. pars superior duodeni
61. pars descendens duodeni
62. flexura duodenojejunalis
63. fossa vesicae felleae
64. capsula fibrosa, Glissoni
65. lig. coronarium hepatis
66. lig. falciforme hepatis
67. lig. triangulare sinistrum
68. lig. triangular dextrum
69. a. hepatica communis
70. v. portae
71. v. mesenterica superior
72. v. splenica
73. vesica fellea
74. a. cystica
75. Triangle of Calot
76. ductus hepaticus dexter
77. ductus hepaticus sinister
78. ductus hepaticus communis
79. ductus cysticus
80. ductus choledochus
81. pancreas
82. facies diaphragmatica lienis
83. facies visceralis lienis
84. hilus lienis
85. extremitas anterior lienis
86. extremitas posterior lienis

Topic 4. Topographic anatomy of the lower abdominal cavity

1. duodenum
2. jejunum
3. ileum
4. flexura duodenojejunalis
5. a. mesenterica superior
6. a. ileocolica
7. a. appendicularis
8. a. Colica dextra
9. a. colica sinistra
10. a. colica media
11. Riolanis arc
12. a. mesenterica inferior
13. aa. sigmoideae
14. a. rectalis superior
15. v. ileocolica
16. v. colica dextra
17. v. colica media
18. v. mesenterica superior

19. aa. jejunaes
20. aa. iliacae
21. tenia libera
22. tenia omentalis
23. tenia mesocolica
24. haustrae
25. appendices epiploicae
26. caecum
27. recessus retrocaecalis
28. colon ascendens
29. colon descendens
30. colon transversum
31. colon sigmoideum
32. recessus intersigmoideus
33. mesocolon
34. flexura coli dextra
35. flexura coli sinistra
36. saccus lienalis
37. valva ileocaecalis
38. ostium ileocaecale
39. appendix vermiformis
40. Lanza point
41. McBurney point
42. pars abdominalis aortae
43. a. phrenica inferior
44. a. suprarenalis media
45. truncus celiacus
46. a. renalis
47. aa. lumbales
48. a. testicularis/ovarica
49. a. mesenterica inferior
50. a. sacralis mediana
51. a. iliaca externa
52. a. iliaca interna
53. a. epigastrica inferior
54. a. circumflexa ilium profunda
55. v. cava inferior
56. v. testicularis/ovarica dextra
57. v. testicularis/ovarian sinister
58. v. renales

Topic 5. Intestinal operations

- No practical skills for the lesson

Topic 6. Stomach operations

- No practical skills for the lesson

Topic 7. Operations on organs of the hepatobiliopancreatoduodenal zone

- No practical skills for the lesson

Section 6. Topographic anatomy and operative surgery of the lumbar region and retroperitoneum

Topic 8. Topographic anatomy and operative surgery of the lumbar region and retroperitoneum

1. Lesgaft's line
2. fascia thoracolumbalis
3. m. erector spinae
4. m. psoas major
5. fascia psoatis
6. fascia quadrata
7. m. latissimus dorsi
8. Petit's triangle
9. m. serratus posterior inferior
10. Lesgaft-Grunfeld rhombus
11. ren dexter
12. ren sinister
13. sinus renalis
14. capsula fibrosa renis
15. pars abdominalis ureteris
16. pars pelvina ureteris
17. ureter dexter
18. ureter sinister
19. v. renalis dextra
20. v. renalis sinistra
21. Tsondeka's zone (natural divisibility of the kidney)
22. glandula suprarenalis dextra
23. pars abdominalis aortae
24. truncus coeliacus
25. a. suprarenalis media
26. a. mesenterica superior
27. aa. lumbales
28. a. testicularis\ovarica
29. a. mesenterica inferior
30. a. sacralis mediana
31. a. iliaca externa
32. a. iliaca interna
33. a. epigastrica inferior
34. a. circumflexa ilium profunda
35. v. cava inferior
36. v. testicularis\ovarica dextra
37. v. testicularis\ovarica sinistra
38. plexus coeliacus
39. plexus mesentericus superior
40. plexus renalis
41. plexus uretericus
42. corpus vertebrae

43. arcus vertebrae
44. incisura vertebralis superior
45. incisura vertebralis inferior
46. foramen vertebrale
47. processus spinosus
48. processus transversus
49. arcus anterior atlantis
50. processus articularis superior
51. processus articularis inferior
52. fovea dentis atlantis
53. arcus posterior atlantis
54. tuberculum caroticum
55. basis ossis sacri
56. facies auricularis ossis sacri
57. apex ossis sacri
58. foramina sacralia pelvina
59. foramina sacralia dorsalia
60. canalis sacralis

Section 7. Topographic anatomy and operative surgery of the small pelvis.

Topic 9. Topographic anatomy of the pelvis and perineal area

1. articulatio sacroiliaca
2. lig. sacrospinale
3. lig. sacrotuberale
4. linea terminalis
5. pelvis major
6. pelvis minor
7. excavatio rectovesicalis
8. excavatio vesicouterina
9. excavatio rectouterina
10. fossa ischiorectalis
11. Denonvillier-Salischewitsch aponeurosis
12. spatium retropubicum
13. spatium laterale dextrum
14. spatium laterale sinistrum
15. spatium rectorectale
16. spatium paravesicale
17. periprostatic tissue
18. parametrium
19. perirectal tissue
20. m. iliopsoas
21. m. psoas minor
22. m. tensor fasciae latae
23. foramen suprapiriforme
24. foramen infrapiriforme
25. m. obturatorius internus
26. foramen obturatorium

27. membrane obturatoria
28. m. obturatorius externus
29. cavum pelvis peritoneale
30. cavum pelvis subperitoneale
31. cavum pelvis subcutaneum
32. fascia endopelvina
33. plica vesicalis transversa
34. arcus tendineus fasciae pelvis
35. a. iliaca interna
36. a. iliolumbalis
37. a. obturatoria
38. a. umbilicalis
39. aa. vesicales superiores
40. a. vesicalis inferior
41. a. uterine
42. a. ovarica
43. a. pudenda interna
44. n. gluteus superior
45. n. gluteus inferior
46. n. cutaneus femoris posterior
47. n. ischiadicus
48. n. pudendus
49. plexus hypogastricus inferior
50. ductus deferentis
51. plexus rectalis
52. plexus prostaticus
53. plexus uterovaginalis
54. plexus vesicalis
55. prostate
56. uterus
57. lig. latum uteri
58. lig. teres uteri
59. ligg. vesicouterina
60. ligg. pubovesicalia
61. ligg. sacrouterina
62. ligg. cardinalia uteri
63. tuba uterina, salpinx
64. ovarium
65. mesovarium
66. vesica urinaria
67. m. levator ani
68. perineum
69. regio urogenitalis
70. regio analis

Topic 10. Surgeries on the pelvic organs

- No practical skills for the lesson

Topic 11. Topographic anatomy and operative surgery of the rectum

1. pars supraampullaris recti
2. ampulla recti
3. canalis analis
4. a. rectalis superior
5. a. rectalis media