|  |  |
| --- | --- |
|  | MINISTRY OF HEALTHCARE OF THE RUSSIAN FEDERATION  State Government-Funded Educational Institution of Higher Professional Education  «NORTHERN STATE MEDICAL UNIVERSITY»  of Ministry of Healthcare of the Russian Federation |

«APPROVED»

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| «APPROVED»  Dean of the International Faculty of General Practitioner  A. K.Sherstennikova  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  «\_\_\_\_»\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_2023г. |

**SYLLABUS OF DISCIPLINE (MODULE)**

Discipline **(operative surgery and topographic anatomy)**

According to the **discipline of operative surgery and topographic anatomy**

Field of training 31.05.01 «General medicine» .

Year of training \_\_2,3

Form of the interim attestation (pass/fail test, exam) exam

Department anatomy and operative surgery

Course workload 180 (hours)/ 5 (credits)

Reviewed at the department meeting

Minutes № 9

« 17 » 06 2023

Head of the department

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Suhanov S.G..MD

**Authorand compiler: \_**prof, Dr.Sc.N.A .Martynova,.

Kalinin RG, MD, PhD

Arkhangelsk, 2023

1. The purpose and objectives of the development of the discipline

Goal - assimilation of knowledge and practical skills in the implementation of general medical surgical procedures, providing first medical aid to victims, as well as the essence of the basic techniques for the correct diagnosis and choice of a method of surgical treatment in case of emergency and trauma

Tasks:

Skills for backsight anatomy major neurovascular bundles , fascial sheaths and cellular spaces ;

⦁ mastery of knowledge is important topographic anatomical relationship of normal and pathological conditions in the event .

⦁ acquisition of knowledge with a view to the adoption of active independent decisions to provide surgical care to the extent necessary to save the lives of victims and prevention of severe complications ;

⦁ Mastering the rules of using surgical instruments.

2. Position of the discipline (module) within the structure of the educational program

The program is in accordance with the GEF towards podgotovki\_060101 "Medicine"

Discipline"Operative surgery and topographic anatomy"refers to the cycle of mathematical and natural sciences .

Basic knowledge necessary for study in the discipline form :

* Cycleofhumanitarianandsocio- economicdisciplines , includingphilosophy, bioethics , psychologyandpedagogy , historyofmedicine , theLatinlanguage
* Cycle natural- scientific disciplines , including: physics, mathematics ; chemistry ; biology ; histology , embryology , cytology ; normal physiology .
* It is prior to study disciplines : Faculty surgery , hospital surgery and others . Clinical disciplines .

3. The list of intended learning outcomes of disciplines (modules ) , correlated with the results of the planned development of the educational program.

|  |  |  |  |
| --- | --- | --- | --- |
| **Codes generated competencies** | **Competencies** | | |
| **To Know** | **To Able** | **To Own** |
| PC -№16 | **Professional competence** | | |
|  | the ability and willingness to analyze the patterns of functioning of individual organs and systems ,  basic techniques of clinical and immunological examination and evaluation of the functional state of the body of an adult and a teenager for the timely diagnosis of diseases and pathological processes. | use knowledge of the anatomical and physiological bases. |  |

**4. The amount of discipline and types of training activities** :

Total labor discipline is 5 credits

Discipline: **Topographic anatomy and Operative Surgery (Block 1.Disciplines (modules), Mandatory part)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Type of academic work** | **Total hours** | **Semester** | |
| **4** | **5** |
| **Contact work of students with the teacher (total)** | **72** | **30** | **42** |
| Including: |  |  |  |
| Lectures (L) | 24 | 10 | 14 |
| Seminars (Sem) |  |  |  |
| Practical training (PT) | 40 | 16 | 24 |
| Clinical practical classes (KPC) |  |  |  |
| Laboratory classes (LC) |  |  |  |
| Simulation practical exercises (SPE) | 8 | 4 | 4 |
| Contact work during the exam (CWE) | 0,3 |  | 0,3 |
| Contact work during the test (CWT) |  |  |  |
| Consultations for the exam (CE) | 2 |  | 2 |
| Course work (Cont KW) |  |  |  |
| **Independent work (total)** | **72** | **42** | **30** |
| **Control** | 33,7 |  | 33,7 |
| **Total labor intensity (hour)** | **180/5** | **72** | **108** |

**The planned results of the development of the educational program provided by the discipline (module).**

|  |  |
| --- | --- |
| **Codes of formed competencies/formulations of competencies** | **Competence achievement indicator** |
| GPC-5. Able to assess morphofunctional, physiological conditions and pathological processes in the human body to solve professional problems | ID-5.1. Knows anatomy, histology, topographic anatomy, physiology, pathological anatomy and physiology of human organs and systems.  ID-5.2. Is able to identify and evaluate morphofunctional, physiological states and pathological processes in the human body  ID-5.3. Knows the methods of clinical, laboratory and functional diagnostics for solving professional tasks.  ID-5.4. Is able to analyze the results of clinical, laboratory and functional diagnostics to assess morphofunctional, physiological conditions and pathological processes in the human body. |

**5. Contents :**

5.1. The content of sections discipline.

|  |  |  |
| --- | --- | --- |
| **№**  **п/п** | **Title Name of discipline** | **Inside this Section** |
| 1 | 2 | 3 |
|  | Topographic anatomy and operative surgery of the upper and lower extremeties. | Topography of the upper limb ( subclavian , axillary , and deltoid regions, shoulder ) . The topography of the area of ​​the elbow , forearm , wrist and fingers Topography of the lower limb ( gluteal region , thigh ) . The topography of the popliteal fossa , the tibia , the medial ankle and foot . Surgical instruments . Surgical Technique . Terms separation and connection tissues. Operations on vessels of the limbs. Operations on the tendons and nerves. Operations on the joints and bones of the limbs. Amputation and disarticulation |
|  | Topographic anatomy and operative surgery of the head and neck . | The topography of the cerebral department head. Operations on the brain of the head . The topography of the facial part of the head . Operations in the personal department head. Topography of the neck. Topography of the internal organs of the neck. Operations on the neck . |
|  | Topographic anatomy and operative surgery of the chest, abdomen and pelvis . | Topography chest. Operations on chest wall mediastinal topography . Operations on the thoracic cavity topography of the anterior abdominal wall and hernia surgery topography of the abdominal cavity and its organs topography retroperitoneal space and pelvis . |

**5.2 . Sections of disciplines and occupations.**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **№**  **п/п** | **Title Name of discipline** | **L** | **PC** | **W** | **LW** | **CPS** | **СРС** | **Total hours** |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 1. | Topographic anatomy and operative surgery of upper and lower extremities | 12 | 24 |  |  |  | 18 | 54 |
| 2. | Topographic anatomy and operative surgery of the head and neck . | 8 | 16 |  |  |  | 12 | 36 |
| 3. | Topographic anatomy and operative surgery of the chest, abdomen and pelvis . | 12 | 24 |  |  |  | 18 | 54 |

**6. Interactive forms of employment.**

|  |  |  |  |
| --- | --- | --- | --- |
| **№**  **п/п** | **Title Name of discipline** | **Interactive forms of employment** | **Длительность**  **(час.)** |
| 1. | Topographic anatomy and operative surgery of upper and lower extremities | The use of trained teachers of multimedia presentations | 4 |
| 2. | Topographic anatomy and operative surgery of the head and neck . | The use of trained teachers of multimedia presentations  Using multimedia presentations prepared by students | 2 |
| 3. | Topographic anatomy and operative surgery of the chest, abdomen and pelvis . | Using multimedia presentations prepared by students | 4 |
| Total (h ). | | | 10 |
| Total ( % of the classroom ) | | | 9,6 % |

**7. The students' independent work.**

|  |  |  |  |
| --- | --- | --- | --- |
| **№**  **п/п** | **Title Name of discipline** | **Types of independent work** | **forms of control** |
| 1. | 1. Topographic anatomy and operative surgery of upper and lower extremities | The study drugs ( cuts shoulder , thigh at different levels ) .  Biological material .  Training programs in electronic form | Oral questioning , testing |
| 2. | Topographic anatomy and operative surgery of the head and neck . | The study drugs  Preparation of presentations on the topics in this section ;  Working with textbooks ;  Educational program in electronic form. educational films | Oral questioning , testing |
| 3. | Topographic anatomy and operative surgery of the chest, abdomen and pelvis . | The study drugs cuts ;  Independent decision of situational problems ;  Work with training programs ;  View animations , presentations and videos. | Oral questioning , testing |

**8. Forms of control**

8.1. Forms monitoring

- Oral (interview , report presentation on lessons)

- Written (verification tests, lecture notes , problem solving ) .

8.2 . Forms interim assessment - Exam

The stages of the examination

1etap - interview on the ticket

⦁ stage - interview on biological materials or sawed .

Stage 3 - interview on surgical instruments.

Questions for tests and exams are given in Appendix №4 to the working curriculum "Fund assessment tools ."

**9. The educational-methodical maintenance of discipline**

**9.1 Main Reading**

⦁ AV Nikolaev Topographic anatomy and operative surgery: in 2 v.: Proc. for honey. Universities / AV Nikolayev. - M.: GEOTAR Media 2009.

⦁ Sergienko VI Topographical Anatomy and Operative Surgery: Proc. for medical students. high schools: in 2 vol. / VI Sergienko, EA Petrosyan IV Frauchi; ed. YM Lopuchin. - 3rd ed., Rev. - M.: GEOTAR Media 2007.

⦁ Topographic anatomy and operative surgery of the maxillofacial region: Proc. aid for honey. Universities / RN Kalashnikov [et al.]. - Ivanovo: [b. and.], 2008. - 227 p

**9.2. Additionalliterature**

⦁MeshcheryakovMAOperativesurgeryandtopographicanatomy: Proc. allowanceforstudents / MAMeshcheryakov. - M.: AcademiA, 2005. - 511, [1] s.

⦁Basicsemergencysurgery: hands. forPhysiciansSociety. practice [2m.] / RNKalashnikov [etal.]; ed. : RNKalashnikov, EVNedashkovsky; M-HealthinRos. FederationNorth. state. honey. Univ. - ArkhangelskUnivSSMU2014.

⦁OstroverkhovGEOperativesurgeryandtopographicanatomy: Proc. formedicalstudents. Universities / GEOstroverkhov, YMBomash, DNLubotsky. - 5thed., Rev. - M: Honey. Inf. Agency, 2005. - 734p.

⦁ Topographic Anatomy and Operative Surgery : Proc . for medical students . high schools: in 2m. / [ VF Baytinger et al . ] ; ed. : II Kagan , ID Kirpatovsky . - M. ​​:

GEOTAR Media 2012 .

⦁ Topographic anatomy and operative surgery of the head and neck : Proc . for Universities / VI Sergienko [et al . ] . - M. ​​: GEOTAR Media , 2010. - 526 p.

**9.3 . The list of resource information and telecommunications media "Internet" , necessary for the development of disciplines (modules )**

⦁ EBS ' student Consultant »<http://www.studmedlib.ru/>

⦁ FBS Iprbooks <http://www.iprbookshop.ru/>

⦁ www. Medlinks.ru

⦁ Atlas operations VN Voylenko <http://www.uroweb.ru/catalog/med_lib/oper_atl/begin.htm>

⦁ Kovanov operative surgery and topographic anatomy <http://www.booksgid.com/people/10863-kovanov-operativnaja-khirurgija-i.html>

MedExplorer, ⦁ MedHunt, PubMed.

**9.4 . List of information technologies used for the implementation of the educational process in the discipline ( module ) , including a list of software and information referral systems**.

Specialized programs ( training program on the subject of topographical anatomy and operative surgery , a computer program for receiving the castings on the topics of both semesters , a computer program for receiving the exam , video ( shot by employees of the department ) , electronic textbook presentations on the topics of workshops, presentations of lectures . Software : certified , licensed programs , and general educational purposes.

**10. Logistics discipline**

The lecture rooms are located in the morphological body SSMU (Aud. Im. SI Elizarovskiy etc.). To give lectures and practical classes used multimedia projectors.

    The workshops are located in the premises of the Department of morphological building. The workshops are equipped with projectors, dissecting table, surgical tools, models, simulators and morphological drugs.

**List of office equipment, located in the classrooms of the Department.**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| №  пп | Name of the property | inventory number | The unit of measure (pieces set) | amount | Weight exported property , tons |
| 1 | 2 | 3 | 4 | 5 | 6 |
| 1 | Multimedia  projector | №  М 008067440 | PC. | 1 |  |
| 2 | Notebook HP Compaq | № М008067626 | PC. | 1 |  |
| 3 | Моnitor JК | №  М008068461 | PC. | 1 |  |
| 4 | Моnitor JК | №  М008068460 | PC. | 1 |  |
| 5 | System Unit  Universal | №  М008068597 | PC. | 1 |  |
| 6 | Video Player  DVD | №  0001380508 | PC. | 1 |  |
| 7 | Multifunctional . HP Laser Center | №  М008067606 | PC. | 1 |  |
| 8 | Printer | №  0000138556 | PC. | 1 |  |
| 9 | Printer «UMAX» | №  1360072 | PC. | 1 |  |
| 10 | Progr. - appar. complex | №  0001360683 | PC. | 1 |  |
| 11 | System unit | №  М008067549 | PC. | 1 |  |
| 12 | Моnitor «ACER» | №М008068526 | PC. | 1 |  |
| 13 | System unit  Oldi Offce | №  М008068637 | PC. | 1 |  |
| 14 | Notebook  ASUS | №  М008070917 | PC. | 1 |  |
| 15 | Multimedia Projector Mitsubishi | №  М008070845 | PC. | 1 |  |
| 16 | Notebook  ASUS | №  М008070926 | PC. | 1 |  |
| 17 | Printer HP Laser Jet  Pro | №  М008070870 | PC. | 1 |  |

**11. Evaluation of the students the content and quality of the educational process on discipline**

Sample-profile review on the discipline of "operative surgery and topographic anatomy" (anonymous)

We ask you to fill in the review Read the subject "operative surgery and topographic anatomy." Summary data profiles will be used to improve it. For each question put appropriate assessment on a scale of 1 to 10 points (circle the selected point). If necessary, enter your comments.

1. How satisfied are you with the content of the discipline as a whole?

1 2 3 4 5 6 7 8 9 10

A comment\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

2. How satisfied are you with the overall style of teaching?

1 2 3 4 5 6 7 8 9 10

A comment\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. How do you assess the quality of training offered teaching materials?

1 2 3 4 5 6 7 8 9 10

A comment\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4.How you are satisfied with the teacher using active learning methods (process modeling, case studies, interactive lectures, etc.)?

1 2 3 4 5 6 7 8 9 10

A comment\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

5. As of the sections of discipline you find most useful, valuable in terms of further training and / or subsequent use in practice?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6. What would you propose to change in terms of content and methodical to improve the teaching of this discipline?

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

THANK YOU!

**Author (s) :**

|  |  |  |
| --- | --- | --- |
| Position Held | Surname, Initials | Signature |
| Professor, Ph.D. | Martynova N.A. |  |
| Associate Professor Department, Ph.D. | Kalinin R.G. |  |

**Reviewer (s) :**

|  |  |  |  |
| --- | --- | --- | --- |
| Work Place | position held | surname, initial | signature |
| NSMU | Associate Professor, Department, Ph.D. | Basova L.A. |  |
|  |  |  |  |
|  |  |  |  |

Application №1 to the work program of discipline

**Thematic plan of lectures**

Academic discipline : Operative surgery and topographic anatomy

Direction of preparation : 310501 Medicine

Semester : 3-4

course : 2-3

|  |  |  |
| --- | --- | --- |
| № lectures | Тopic of lectures. | Amount of hours. |
|  | Background . Goals and objectives of the study of the subject , its practical significance . | 2 |
|  | Surgical Technique | 2 |
|  | Endo-video-surgery. | 2 |
|  | Topographic- anatomic substantiation of operations for chronic inflammatory diseases of the hand and fingers . | 2 |
|  | Operations in the blood vessels. | 2 |
|  | Amputation and disarticulation . | 2 |
|  | PHO wounds. | 2 |
|  | *Operations on the bones .* | 2 |
|  | Anatomical and physiological features of the brain surgery department head. Trepanation. | 2 |
|  | Operations on the nerves and tendons | 2 |
|  | Surgical anatomy of the anterior neck . Major surgery . | 2 |
|  | Surgical anatomy of the breast. Operations at the chest wounds ,. | 2 |
|  | Surgical anatomy of the anterior abdominal wall . Surgeries at external abdominal hernias . | 2 |
|  | Intestinal seams . | 2 |
|  | Surgery on the stomach. | 2 |
|  | Operations in penetrating abdominal wounds . | 2 |
| TOTAL | | 32 |

Considered at the meeting of the department "\_\_\_" \_\_\_\_\_\_\_\_\_\_\_\_\_ 2021 Protocol № \_\_\_\_\_\_\_\_\_\_\_\_

Head of the department , MD, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Suhanov S.G.

**Application 3**

**Thematic plan of practical classes**

Academic discipline - Operative surgery and topographic anatomy

Direction of preparation - 310501 Medicine

Semester - 3-4

The number of hours devoted to practical lessons - 64 hours .

course -2-3

|  |  |  |
| --- | --- | --- |
| № Classes | Topic of Classes. | Amount of hours |
|  | Topography of the upper limb ( subclavian , axillary , and deltoid regions, shoulder ) . | 4 |
|  | The topography of the area of ​​the elbow , forearm , wrist and fingers . | 4 |
|  | The topography of the lower limbs ( buttocks , thighs ) | 4 |
|  | The topography of the popliteal fossa , the tibia , the medial ankle and foot . | 4 |
|  | Surgical instruments . Surgical Technique . Terms separation and connection tissues. | 4 |
|  | Skin grafting ( trading day on animals ) | 4 |
|  | Operations on vessels of extremities | 4 |
|  | Operations on the tendons and nerves | 4 |
|  | Operations on the joints and bones of the limbs amputations and disarticulation | 4 |
|  | The topography of the cerebral department head. The topography of the facial part of the head | 4 |
|  | Topography Topography of the neck of the internal organs of the neck on the neck operations . | 4 |
|  | Topography chest. Operations on chest wall topography of the mediastinum | 4 |
|  | The topography of the anterior abdominal wall and hernia surgery | 4 |
|  | Topography of the abdominal cavity and its organs topography retroperitoneal space and pelvis | 4 |
|  | Operations in the abdominal cavity, pelvis. | 4 |
|  | Operating day animals | 4 |
| TOTAL | | 64 |

Considered at the meeting of the department "\_\_\_" \_\_\_\_\_\_\_\_ 2021. Protocol number \_\_\_\_\_\_\_

Head of the department , MD, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Suhanov S.G.

Appendix №2 to the work program of discipline

MINISTRY OF HEALTH OF THE RUSSIAN FEDERATION

State Educational Institution of Higher Professional Education

"Northern State Medical University"

Ministry of Health of the Russian Federation

GUIDELINES FOR TEACHERS

ON DISCIPLINE operative surgery and topographic anatomy

2021y.

The structure and content of the guidelines for the teacher

Modern approaches to the issue of discipline

The European North has specific features of the doctor: the harsh climate, a large remote settlements, poor infrastructure and lack of roads. For these reasons, the use of highly skilled and specialized medical care to patients and victims is difficult. In such extreme conditions, actions of the doctor in rendering first medical aid is extended within reason. So now you must orient the students to adopt active independent decisions in urgent situations, to provide surgical care in saving the life of the victims and prevention of severe complications.

2. Educational Technology

           Lectures are presented in the form of multimedia presentations, workshops are held in the traditional forms include oral questioning, analysis of the material, the development of practical skills, the decision of situational problems, concluded the teacher.

2.1. Active and interactive forms of employment

 Some classes are held in the form of a trading day. From the student group is formed by the surgical team, including anesthesiologists, operating nurses, surgeons. Next, the students perform their own pre-planned operation in experimental animals.

2.2. Organization and control of independent work of students

  Lecture: Decision situational clinical tasks, decision of test tasks development of practical skills on mannequins, simulators, simulators

  Extracurricular: Preparation of presentations, slide shows, some sections of the report of the study of the topics of the curriculum

3. Performance criteria, means of evaluating competencies, the scale of assessment

Evaluation of the training is conducted in the form of input, intermediate, final control of knowledge of students and final exam. Worked through the rating system of assessment.

Calculation of points on the learning outcomes of students in the department of operative surgery and topographic anatomy.

|  |  |  |
| --- | --- | --- |
| № п/п | Student Activities | Number of points |
|  | **3 Semester** |  |
|  | Residual knowledge of anatomy ( input control ) 6 semester | 0-5 |
|  | Attendance at lectures compulsory | 1х1л =6 |
|  | Presence on the practical classes | 1х1з=17 |
|  | Intermediate control  1. The final session on top.anatomii v.konechnosti  2. The final session on top.anatomii n.konechnosti  3. The final session on manual skills | 3-5  3-5  3-5 |
|  | Participation in the operation | 2х1оп (2-10) |
|  | Final test control at the end of the semester | 3-5 |
|  | **4 Semester** |  |
|  | Attendance at lectures compulsory | 1х1л =7 |
|  | Presence on the practical classes | 1х1з=10 |
|  | Intermediate control :  The final session on the topography of the neck, chest , abdomen , pelvis. | 3-5 |
|  | Participation in the operation | 2х1оп (2-10) |
|  |  |  |
|  | **Reward points:** |  |
|  | * Work in the CPC: * ⦁ Seen Mug * ⦁ performance at circle * ⦁ report at the conference * ⦁ publication of abstracts | 1х1  3х1  5х1  8х1 |
|  | * Learning electives: * ⦁ class attendance * ⦁ course work * ⦁ course work and report | 1х6  3х  5х |

The maximum number of points - 134 points

      points - 70% or more - satisfactory (93.8)

      points - 80% or more - well (107.2)

      points - 90% and more - excellent (120.6)

Appendix 3 to the number of the working program of discipline

MINISTRY OF HEALTH OF THE RUSSIAN FEDERATION

State Educational Institution of Higher Professional Education

"Northern State Medical University"

Ministry of Health of the Russian Federation

GUIDELINES FOR STUDENTS

ON DISCIPLINE operative surgery and topographic anatomy

2021y.

**The structure and content of the guidelines for students**

Exercise number 1

1. Subject class, its goals and objectives

Topographic anatomy of the upper limb.

2. The basic concepts that need to be learned by students in the course of the study subjects (the list of concepts).

The division of the upper limb in the topographical area.

Topography subclavian region

The topography of the axilla

The topography of the shoulder

The topography of the area of ​​the elbow

3. Questions to the occupation

Layered structure of the subclavian region

Layered structure of the axilla

Layered structure of the shoulder

Layered structure of the elbow region

4. Questions for self-control

 What external landmarks and topographical border regions of the upper limb?

Topographic anatomy of the axillary region.

Possible pathways of pus from the armpit.

The topography of the neurovascular bundle armpit its triangles, respectively.

Topographic anatomy of the shoulder.

Surgical anatomy of the neurovascular structures of the shoulder.

5. The basic literature:

1.Topograficheskaya Anatomy and Operative Surgery edited I.I.Kagana, ID Kirpatovsky, Volume 1, 2, -2012g.

2.A.V.Nikolaev Topographic anatomy and operative surgery, 2013. Volume 1.2

3. V.D.Ivanova Selected lectures on operative surgery and clinical anatomy ,, Samara, 2009.

4. R.M.Zolinger (ml.) R.M.Zolinger (v) Atlas of Surgical Operations, 2009, Moscow

Additional literature:

1.V.I.Sergienko, E.A.Petrosyan, I.V.Frauchi Topographic anatomy and operative surgery, 2001g.- Volume 1, 2

2.Kalashnikov RN et al. A practical guide to operative surgery and topographic anatomy for anesthesiologists and emergency. Arkhangelsk 2000.

3.Zhuravlev AG Case studies of operative surgery and topographic anatomy. Moscow, 2003

Exercise number 2

1. Subject class, its goals and objectives

Topographic anatomy of the forearm, hand and fingers

2. The basic concepts that need to be learned by students in the course of the study subjects (the list of concepts).

Topography of forearm

Topography brush

Topography fingers

Operations on the hand and fingers when Whitlow

3. Questions to the occupation

Layered structure of the forearm

Layered structure of the brush

Layered structure of the fingers

Anesthesia Oberst-Lukashevich.

Cuts in the treatment of abscesses and brush panaritiums

4. Questions for self-control

The topography of the anterior region of the forearm, furrows, the neurovascular bundle.

Topography cellular spaces Pirogov. Its value.

The topography of the palmar surface of the brush.

The topography of the tendon sheath of the flexor muscles, their practical significance.

The topography of the surface and deep arterial arches.

What is "forbidden zone Kanavelya"

Technique anesthesia Oberst-Lukashevich, complications.

5. The basic and additional literature to the topic

Main literature:

1.Topograficheskaya Anatomy and Operative Surgery edited I.I.Kagana, ID Kirpatovsky, Volume 1, 2, -2012g.

2.A.V.Nikolaev Topographic anatomy and operative surgery, 2013. Volume 1.2

3. V.D.Ivanova Selected lectures on operative surgery and clinical anatomy ,, Samara, 2009.

4. R.M.Zolinger (ml.) R.M.Zolinger (v) Atlas of Surgical Operations, 2009, Moscow

Additional literature:

1.V.I.Sergienko, E.A.Petrosyan, I.V.Frauchi Topographic anatomy and operative surgery, 2001g.- Volume 1, 2

2.Kalashnikov RN et al. A practical guide to operative surgery and topographic anatomy for anesthesiologists and emergency. Arkhangelsk 2000.

3.Zhuravlev AG Case studies of operative surgery and topographic anatomy. Moscow, 2003

Exercise number 3

1. Subject class, its goals and objectives

Topographic anatomy of the lower limb

Traumatic injuries of blood vessels, hemarthrosis, septic arthritis, synovitis, cellulitis, closed and open fractures of the hip require surgery. For right choice of ways to stop the bleeding, the treatment of inflammatory diseases, fractures and restoration of tissue integrity requires knowledge of the topography of these regions.

Goals and objectives:

To study and be able to navigate the topographic anatomy of the gluteal region, thigh.

Examine layered topography of the area, the surgical anatomy of the neurovascular bundles.

To be able to use the knowledge of topographic anatomy for the formation of clinical thinking in the justification:

      a) diagnosis of injuries and diseases of the neurovascular structures of the studied areas

      b) the possibility of compensation for circulatory disorders thrombosis of major vessels;

      c) rapid access to blood vessels and nerves.

2. The basic concepts that need to be learned by students in the course of the study subjects (the list of concepts).

External orientation of the lower limb,

Dividing feet on the topographical area

Layered structure, fascial wallets and cellular spaces.

The topography of the gluteal region.

The femoral triangle.

Femoropopliteal channel.

3. Questions to the occupation

The topography of the gluteal region.

Topography of the anterior region of the thigh

The femoral triangle.

Femoropopliteal channel.

The topography of the posterior region of the thigh.

4. Questions for self-control

The boundaries of the areas studied, musculoskeletal landmarks

The structure and contents of the muscular and vascular lacunae. The femoral canal.

The topography of the anterior region of the thigh, the neurovascular bundle.

The topography of the posterior region of the thigh, the sciatic nerve.

Topography leading channel, its wall holes content.

The medial thigh muscle group, the obturator canal.

5. The basic literature:

1.Topograficheskaya Anatomy and Operative Surgery edited I.I.Kagana, ID Kirpatovsky, Volume 1, 2, -2012g.

2.A.V.Nikolaev Topographic anatomy and operative surgery, 2013. Volume 1.2

3. V.D.Ivanova Selected lectures on operative surgery and clinical anatomy ,, Samara, 2009.

4. R.M.Zolinger (ml.) R.M.Zolinger (v) Atlas of Surgical Operations, 2009, Moscow

Additional literature:

1.V.I.Sergienko, E.A.Petrosyan, I.V.Frauchi Topographic anatomy and operative surgery, 2001g.- Volume 1, 2

2.Kalashnikov RN et al. A practical guide to operative surgery and topographic anatomy for anesthesiologists and emergency. Arkhangelsk 2000.

3.Zhuravlev AG Case studies of operative surgery and topographic anatomy. Moscow, 2003.

Exercise number 4

1.Tema class, its goals and objectives

Topographic anatomy of the knee, leg and foot.

Traumatic injuries of blood vessels, hemarthrosis, septic arthritis, synovitis, cellulitis, closed and open fractures, shin, foot and toes require surgical treatment. For right choice of ways to stop the bleeding, the treatment of inflammatory diseases, fractures and restoration of tissue integrity requires knowledge of the topography of these regions.

The goals and objectives of the study

To study and be able to navigate the topographic anatomy of the knee joint.

Examine layered topography of the front and rear area of ​​the rear leg and foot, ankle topographical features, surgical anatomy of the neurovascular bundles.

To be able to use the knowledge of topographic anatomy for the formation of clinical thinking in the justification:

      a) diagnosis of injuries and diseases of the neurovascular structures of the studied areas

      b) the possibility of compensation for circulatory disorders thrombosis of major vessels;

      c) rapid access to blood vessels and nerves.

2. The basic concepts that need to be learned by students in the course of the study subjects (the list of concepts).

Poples

Golenopodkolenny channel

Knee-joint

3. Questions to the occupation

The topography of the popliteal fossa.

The topography of the anterior region of the tibia.

The topography of the posterior region of the leg.

The topography of the medial malleolus.

Topography foot

4. Questions for self-control

The boundaries of the areas studied, musculoskeletal landmarks

The topography of the popliteal fossa.

The topography of the anterior region of the tibia.

The topography of the posterior region of the leg.

The topography of the medial malleolus.

The topography of the foot.

5. The basic literature:

1.Topograficheskaya Anatomy and Operative Surgery edited I.I.Kagana, ID Kirpatovsky, Volume 1, 2, -2012g.

2.A.V.Nikolaev Topographic anatomy and operative surgery, 2013. Volume 1.2

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4. R.M.Zolinger (ml.) R.M.Zolinger (v) Atlas of Surgical Operations, 2009, Moscow

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1.V.I.Sergienko, E.A.Petrosyan, I.V.Frauchi Topographic anatomy and operative surgery, 2001g.- Volume 1, 2

2.Kalashnikov RN et al. A practical guide to operative surgery and topographic anatomy for anesthesiologists and emergency. Arkhangelsk 2000.

3.Zhuravlev AG Case studies of operative surgery and topographic anatomy. Moscow, 2003

Exercise number 5

1. Subject class, its goals and objectives

Surgical instruments. Terms separation and connection tissue

     Surgery can be performed without surgical tools, knowledge of which is necessary in any specialty physicians as well as knowledge of the rules and techniques of surgical technique.

Goals and objectives:

To teach students the preparation of the surgical field.

To acquaint students with the general surgical instruments and learn to use it.

To teach the students the technique of layering infiltration anesthesia.

To teach students dissection of tissue layer by layer.

To teach students the connection layer by layer fabrics.

To teach the technique to stop bleeding by using hemostatic clips, followed by ligation of vessels.

To acquaint students with the kinds of joints and units.

2. The basic concepts that need to be learned by students in the course of the study subjects (the list of concepts).

Surgical Instruments

Terms of tissue separation

Terms compound fabrics

Surgical units

3. Questions to the occupation

Classification of surgical instruments

Terms of tissue separation

Terms compound fabrics

Surgical units, types, methods of knitting

Suture. Classification.

4. Questions for self-control

What is the order of the tools on the operating table?

What is the preparation of the surgical field?

What is the method of anesthesia for AV Vishnevsky?

What are scalpels? Positions hold a scalpel.

How to hold the scissors in his hand?

The Kocher hemostat different from others?

The different needle holders?

How to properly hold the forceps in his hand?

What are the surgical needles?

What are the requirements to suture?

Comparative characteristics of silk, catgut, of synthetic fibers.

What are the known types of sites?

What are the principles of separation of tissues?

How to divide the skin, fascia, muscle?

What are the known types of skin sutures?

What is the basic principle of combining fabrics?

5. The basic literature:

1.Topograficheskaya Anatomy and Operative Surgery edited I.I.Kagana, ID Kirpatovsky, Volume 1, 2, -2012g.

2.A.V.Nikolaev Topographic anatomy and operative surgery, 2013. Volume 1.2

3. V.D.Ivanova Selected lectures on operative surgery and clinical anatomy ,, Samara, 2009.

4. R.M.Zolinger (ml.) R.M.Zolinger (v) Atlas of Surgical Operations, 2009, Moscow

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1.V.I.Sergienko, E.A.Petrosyan, I.V.Frauchi Topographic anatomy and operative surgery, 2001g.- Volume 1, 2

2.Kalashnikov RN et al. A practical guide to operative surgery and topographic anatomy for anesthesiologists and emergency. Arkhangelsk 2000.

3.Zhuravlev AG Case studies of operative surgery and topographic anatomy. Moscow, 2003

Exercise number 6

1. Subject class, its goals and objectives

Transaction Day Animal Skin grafting. Plastic stalk skin graft Filatov. Free transplantation of skin flap.

Practical skills learned in this lesson, are the basis of all surgical operations. Mastering the techniques of operational techniques on living tissues is particularly important for mastering the technique of the operation, as the student watches the reaction of tissue to injury.

Goals and objectives:

To capture the method of separation and connection tissues. Stop bleeding in the wound. Suturing and nodes.

Get acquainted with the peculiarities of operations of skin plasty.

2. The basic concepts that need to be learned by students in the course of the study subjects (the list of concepts).

The dissection of tissue

Compound tissues

Stopping the bleeding

Skin grafting Filatov

Skin grafting for Dzhanelidze

3. Questions to the occupation

Rules for the preparation of hands of the surgical field.

Terms separation of tissues.

Terms compound fabrics.

Stop the bleeding during surgery.

The surgical skin plasty Filatov.

Technique transplant skin flap on Dzhanelidze

4. Questions for self-control

Stages of anesthesia.

Rules for the preparation of hands of the surgical field.

Terms separation and connection tissues.

Terms bleeding stops.

The surgical skin plasty Filatov.

Technique transplant skin flap.

5. The basic and additional literature to the topic

Main literature:

1.Topograficheskaya Anatomy and Operative Surgery edited I.I.Kagana, ID Kirpatovsky, Volume 1, 2, -2012g.

2.A.V.Nikolaev Topographic anatomy and operative surgery, 2013. Volume 1.2

3. V.D.Ivanova Selected lectures on operative surgery and clinical anatomy ,, Samara, 2009.

4. R.M.Zolinger (ml.) R.M.Zolinger (v) Atlas of Surgical Operations, 2009, Moscow

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1.V.I.Sergienko, E.A.Petrosyan, I.V.Frauchi Topographic anatomy and operative surgery, 2001g.- Volume 1, 2

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3.Zhuravlev AG Case studies of operative surgery and topographic anatomy. Moscow, 2003

Exercise number 7

1. Subject class, its goals and objectives

Vascular surgery. Outcrop and ligation of vessels of upper and lower limbs.

For injuries, limb injuries, as well as in connection with the expansion of indications for surgery for various pathologies of vessels, nerves, there is a need for detection of large vessels and nerves throughout.

Goals and objectives:

To teach students the basic techniques of exposure, ligation of vessels through, venipuncture and venesection.

Anatomically reasonable access to the arterial trunks and possible collateral circulation.

2. The basic concepts that need to be learned by students in the course of the study subjects (the list of concepts).

     Outcrop and ligation of vessels through the upper extremity. Accesses to the axillary, brachial, radial, ulnar artery, superficial palmar arch.

Venipuncture, venesection.

Vascular seam.

3. Questions to the occupation

Projection line the arteries of the upper limb

Indications and equipment in the wound dressings of the vessel and for

Venipuncture, venesection. Technique of, complications

Vascular seam. Kinds. Technique.

4. Questions for self-control

Surgical anatomy of the neurovascular structures armpit, the shoulder, cubital fossa, forearm, hand.

Projection lines for vascular ligation of the upper and lower extremities.

Methods of ligation of vessels for possible complications, their prevention.

Technique venipuncture and venesection.

Types of vascular suture.

5. The basic literature:

1.Topograficheskaya Anatomy and Operative Surgery edited I.I.Kagana, ID Kirpatovsky, Volume 1, 2, -2012g.

2.A.V.Nikolaev Topographic anatomy and operative surgery, 2013. Volume 1.2

3. V.D.Ivanova Selected lectures on operative surgery and clinical anatomy ,, Samara, 2009.

4. R.M.Zolinger (ml.) R.M.Zolinger (v) Atlas of Surgical Operations, 2009, Moscow

Additional literature:

1.V.I.Sergienko, E.A.Petrosyan, I.V.Frauchi Topographic anatomy and operative surgery, 2001g.- Volume 1, 2

2.Kalashnikov RN et al. A practical guide to operative surgery and topographic anatomy for anesthesiologists and emergency. Arkhangelsk 2000.

3.Zhuravlev AG Case studies of operative surgery and topographic anatomy. Moscow, 2003

Exercise number 8

1. Subject class, its goals and objectives

Operations on the nerves and tendons

For injuries, limb injuries often need to operations on the nerves and tendons

Goals and objectives:

Anatomically reasonable access to the nerves and tendons.

To teach the students the technique of suture of nerves.

To teach the students the technique of tendon suture.

2. The basic concepts that need to be learned by students in the course of the study subjects (the list of concepts).

3. Questions to the occupation.

Surgical anatomy of the neurovascular formations thigh, popliteal region, shins and feet.

Indications for suturing nerve and tendons.

Surgical anatomy of the nerves of the extremities.

Exposure of nerve and suturing technique.

Types of tendon suture technique execution.

4. Questions for self-control

Surgical anatomy of the neurovascular formations thigh, popliteal region, shins and feet.

Indications for suturing nerve and tendons.

Surgical anatomy of the nerves of the extremities.

Exposure of nerve and suturing technique.

Types of tendon suture technique execution.

Main literature:

1.Topograficheskaya Anatomy and Operative Surgery edited I.I.Kagana, ID Kirpatovsky, Volume 1, 2, -2012g.

2.A.V.Nikolaev Topographic anatomy and operative surgery, 2013. Volume 1.2

3. V.D.Ivanova Selected lectures on operative surgery and clinical anatomy ,, Samara, 2009.

4. R.M.Zolinger (ml.) R.M.Zolinger (v) Atlas of Surgical Operations, 2009, Moscow

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1.V.I.Sergienko, E.A.Petrosyan, I.V.Frauchi Topographic anatomy and operative surgery, 2001g.- Volume 1, 2

2.Kalashnikov RN et al. A practical guide to operative surgery and topographic anatomy for anesthesiologists and emergency. Arkhangelsk 2000.

3.Zhuravlev AG Case studies of operative surgery and topographic anatomy. Moscow, 2003

Exercise number 9

1. Subject class, its goals and objectives

Operations on the joints: puncture, arthrotomy, resection. Arthrodesis, arthroplasty. Amputation and disarticulation of limbs

Practitioners must know the topographic anatomical features of large limb joints due to frequent inflammatory diseases, injuries, degenerative changes.

Goals and objectives

Examine the topographic anatomical features of large limb joints (shoulder, elbow, wrist, hip, knee, ankle).

Almost teach students arthrocentesis.

To teach students opening joints.

Give the concept of resection of the joints, arthrodesis, arthroplasty. To study the general principles and techniques of performing amputations and disarticulation.

To acquaint students with the techniques applicable to the amputation and disarticulation.

2. The basic concepts that need to be learned by students in the course of the study subjects (the list of concepts).

Amputation

Exarticulation

Fabrics for amputations

3. Questions to the occupation.

Indications for arthrocentesis, arthrotomy, arthrodesis and arthroplasty.

Topographic-anatomical limb joints: shoulder, elbow, wrist, knee, ankle.

Methods puncture joints.

The technique of resection of the joints. Saving extra-articular resection of the knee joint in the root.

Arthroplasty, arthrodesis of joints.

4. Questions for self-control

Indications for arthrocentesis, arthrotomy, arthrodesis and arthroplasty.

Topographic-anatomical limb joints: shoulder, elbow, wrist, knee, ankle.

Methods puncture joints.

The technique of resection of the joints. Saving extra-articular resection of the knee joint in the root.

Arthroplasty, arthrodesis of joints.

Depending on the indication and the disarticulation amputation may be urgent and routine. They operate with extensive injuries of extremities, gangrene, cancer, anaerobic infections, unrecoverable contractures.

In the separation of the limbs can now be created its replantation, if time permits, conditions and qualifications of a surgeon holding a microsurgical technique. Otherwise above the separation do amputation.

3. Questions to the occupation.

The indications for amputation

Classification

Types of anesthesia

Technique of the different types of amputations

Complications of amputations.

4. Questions for self-control

Indications, technique amputations and disarticulation of the phalanges and fingers.

What are amputations ways depending on the shape and the level of soft tissue dissection?

What are the advantages of patchwork way amputations? When it perform?

How to define the length of the skin graft when single and double flap amputation?

What osteoplastic amputation? What are the advantages of e?

Why do higher fibula at the intersection of the lower leg amputation?

How to tie up vessels in the surgical wound?

Why shorten the nerves in the surgical wound?

Where and how to carry out the cuts in the soft tissues of the lower leg amputation Pirogov?

How is the disarticulation of toes on Garanzha?

How is osteoplastic amputation Gritti-Shimanovsky?

5. The basic literature:

1.Topograficheskaya Anatomy and Operative Surgery edited I.I.Kagana, ID Kirpatovsky, Volume 1, 2, -2012g.

2.A.V.Nikolaev Topographic anatomy and operative surgery, 2013. Volume 1.2

3. V.D.Ivanova Selected lectures on operative surgery and clinical anatomy ,, Samara, 2009.

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1.V.I.Sergienko, E.A.Petrosyan, I.V.Frauchi Topographic anatomy and operative surgery, 2001g.- Volume 1, 2

2.Kalashnikov RN et al. A practical guide to operative surgery and topographic anatomy for anesthesiologists and emergency. Arkhangelsk 2000.

3.Zhuravlev AG Case studies of operative surgery and topographic anatomy. Moscow, 2003

Exercise №10

1. Subject class, its goals and objectives

Topographic anatomy of the cerebral and facial parts of the head.

Soft tissue injuries of the head, skull fractures, hematomas of different localization, penetrating and non-penetrating injuries of the cranial vault, tumors, brain cysts are quite common. Knowledge of anatomy and physiology, and especially of age-structural features of the tissue fronto-parietal-occipital, temporal, mastoid area, the topography of the main fissures, convolutions of the brain determined schemes kraniotserebralnoy topography, it is necessary for the proper opening of hematomas, abscesses, abscesses for primary surgical treatment of wounds of head -mozgovogo department head.

Goals and objectives

To be able to determine the topography of the vessels and nerves of the cranial vault, area of ​​distribution, with regard to the implementation of conduction anesthesia, shearing flaps during surgery.

To be able to navigate the layers of the cranial vault, to the anatomic study pathways phlegmon, burrowing pus, haematomas on the vault.

Master topographic anatomical structures relations within the region of interest.

Explore the fascia and cellular spaces the side of the face area.

To study the topography of parotid gland and its duct.

Learn the features of CVD wounds of the maxillofacial area.

2. The basic concepts that need to be learned by students in the course of the study subjects (the list of concepts).

Contact saphenous veins with the sinuses of the dura mater.

Stages of primary surgical treatment of brain injury department head.

Technique stop bleeding from vessels of the head, and venous sinuses.

The boundaries of the triangle burr Shipo.

The topography of the meninges and venous sinuses of the dura mater.

Driving Kronleyna-Bryusov.

The division faces in the field of topographic

Arteries persons

Vienna faces

Nerves persons

Kdetchatochnye space entity

Parotid gland

PECVD person of wounds

3. Questions to the occupation

How to justify the link saphenous veins with dural sinuses?

The main stages of primary surgical treatment of brain injury department head.

The technique of stopping bleeding from the blood vessels of the head and the venous sinuses.

The boundaries of the triangle burr Shipo.

The topography of the meninges and venous sinuses of the dura mater.

Driving Kronleyna-Bryusov.

4. Questions for self-control

The boundaries of cranial and facial part of the head.

The area of ​​the cranial vault and their boundaries.

Layers of fronto-occipital-parietal region.

Temple area.

The topography of the mastoid area.

The boundaries of the triangle burr Shipo its value.

CVD Equipment skull wounds.

The main ways to stop bleeding from the skull and bones sheets set, sinuses of the dura mater, blood vessels of the brain.

Technique antrotomii.

3. Questions to the occupation

External benchmarks and projections neurovascular structures of the facial part of the head.

The topography of parotid-chewing and deep areas of the face.

The venous system of head communication superficial veins with intracranial venous sinuses and their practical value.

Characteristics of surgical approaches on the face, cuts in purulent processes on your face.

An autopsy purulent mumps and retropharyngeal abscess. Technique, complications.

4. Questions for self-control

Divide the face in the region.

Layered topography of parotid-masticatory area.

Extracranial department of facial nerve.

Parotid gland and its duct.

Deep face area, cellular spaces.

Peripharyngeal retropharyngeal and cellular spaces.

Pho face wounds.

Typical cuts on his face.

Opening facial sinuses.

5. The basic and additional literature to the topic:

Main literature:

1.Topograficheskaya Anatomy and Operative Surgery edited I.I.Kagana, ID Kirpatovsky, Volume 1, 2, -2012g.

2.A.V.Nikolaev Topographic anatomy and operative surgery, 2013. Volume 1.2

3. V.D.Ivanova Selected lectures on operative surgery and clinical anatomy ,, Samara, 2009.

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Additional literature:

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3.Zhuravlev AG Case studies of operative surgery and topographic anatomy. Moscow, 2003

Exercise №11

1. Subject class, its goals and objectives

Topographic anatomy of the neck. Topographic anatomy of the neck. Operations on the neck.

Inflammatory processes (phlegmonous adenitis submandibular, retropharyngeal abscess), injury and neck injury, foreign body larynx, trachea, pharynx, cervical esophagus, medial and lateral neck cysts are quite common pathology. Their successful treatment is possible only on the basis of knowledge of topographic and anatomical features of the neck.

Goals and objectives

Practically master topographic anatomical structures relations within the region of interest.

Give an idea of ​​the structure of the fascia and spaces interfascial neck.

Give the anatomical study pathways ulcers, bruises and cuts on his neck when phlegmons.

Almost device to teach students the study area.

To teach students the production and operation of exposure of the common carotid artery ligation.

2. The basic concepts that need to be learned by students in the course of the study subjects (the list of concepts).

Triangles of the neck

The fascia of the neck

Cellular spaces of the neck

Operations in the neck

The thyroid and parathyroid glands

Larynx

Pharynx

Neck vago-sympathetic blockade

Tracheostomy

3. Questions to the occupation

The boundaries and external benchmarks neck, topographic anatomy of the neck. Triangles of the neck and their practical importance in surgery.

Reflex zones of the neck. Their practical value. Projections.

The fascia of the neck, their practical significance. Closed and communicating cellular spaces of the neck.

Topography of the neck (pharynx, esophagus, larynx, trachea, thyroid and parathyroid glands).

Cuts in phlegmon and abscesses in the neck.

Indications and surgical technique of tracheostomy, complications.

Indications and technique of enucleation of goiter and thyroid resection. Complications.

Equipment levels and carotid artery ligation. Ways of collateral circulation.

4. Questions for self-control

The boundaries of the neck, the division into regions.

Triangles of the neck.

The fascia of the neck.

Cellular spaces of the neck.

Submandibular triangle. Triangle Pirogov.

Sleepy triangle.

Topography of the main neurovascular bundle neck.

The differences between the external and internal carotid arteries.

The branches of the external carotid artery in a sleepy triangle.

The lateral triangle of the neck.

Quick access to the autopsy ulcers neck.

Outcrop and ligation of carotid arteries.

Operations at the neck cysts.

Operations in the internal jugular vein ectasia.

3. Questions to the occupation

Topography of the trachea

Topography of the cervical part of the esophagus

The branches of the cervical plexus

The division into triangles of the neck, the lateral border of the triangle of the neck

The layers of the lateral triangle of the neck.

Cellular spaces of the lateral triangle of the neck.

Topography of the cervical phrenic nerve.

Features real-time access to the cervical part of the esophagus.

Operations on the thyroid gland.

4. Questions for self-control

Topography of the trachea

Topography of the cervical part of the esophagus

The branches of the cervical plexus

The division into triangles of the neck, the lateral border of the triangle of the neck

The layers of the lateral triangle of the neck.

Cellular spaces of the lateral triangle of the neck.

Topography of the cervical phrenic nerve.

Features real-time access to the cervical part of the esophagus.

Thyroid surgery.

5. The basic and additional literature to the topic:

Main literature:

1.Topograficheskaya Anatomy and Operative Surgery edited I.I.Kagana, ID Kirpatovsky, Volume 1, 2, -2012g.

2.A.V.Nikolaev Topographic anatomy and operative surgery, 2013. Volume 1.2

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Exercise №12

1. Subject class, its goals and objectives

Topographic anatomy of the breast. Operations on the chest wall. The topography of the mediastinum

Public and private damage to the chest, including complicated plevrogemotoraksom require emergency delays which could lead to the death of the patient. Staphylococcal pneumonia often complicated by the destruction of lung pneumoempyema. Common diseases of the breast, ribs resection patients and healthy for the purpose of exposure of the chest cavity. All of the above requires knowledge of topographic anatomy of the study area, methods of performing various surgical approaches and techniques.

Goals and objectives

Give anatomic substantiation of operational access and techniques in the manufacture of surgical procedures on the chest wall and breast.

Give topographic anatomical study pathways of inflammatory processes within the study area.

To study the topography of the pleura, her sinuses and the projection of these entities on the chest.

Almost produce a puncture of the pleura. Collect 3 canned beer system for active drainage of the pleura. Select the necessary tools and supplies for the puncture and catheterization of the subclavian vein, to produce it on a corpse.

Examine the topographic and anatomic relationships of the lungs.

Examine the topographic anatomy of the mediastinum.

To study the topography of the heart and great vessels.

To study the topography of the thoracic esophagus.

To master the technique of exposure of the heart and wound closure heart surgery for patent ductus arteriosus.

To master the puncture of the pericardium for Larry.

2. The basic concepts that need to be learned by students in the course of the study subjects (the list of concepts).

The chest

The layers of the chest wall

Breast

Diaphragm

Mastitis

Pneumothorax

Drainage pleura.

3. Questions to the occupation

External landmarks and topographic anatomical chest.

Layers thorax. Topography intercostal space.

Breast: blood supply, innervation, lymphatic drainage, the regional lymph nodes.

Aperture and its departments. Weaknesses diaphragm.

Topographic anatomy of the mediastinum, pleura, lung.

4. Questions for self-control

The boundaries of the thorax, the division into regions.

Conditional border to determine the projection of the chest cavity.

Forward-upper chest area.

Topography of the breast, lymph flow path, blood supply and innervation.

Topography intercostal spaces.

The boundaries of the pleura.

Pleural sinuses and their topography.

The cuts in the mastitis.

Puncture of the pleural cavity.

Drainage of the pleural cavity.

Puncture and catheterization of the subclavian vein.

Tactics of the surgeon in different types of pneumothorax, hemothorax, empyema.

The topography of the diaphragm.

Malformations of the diaphragm, their surgical treatment.

3. Questions to the occupation

Surgical anatomy of the lungs, anatomical study on the division of pulmonary lobes and segments.

The concept of the gate and the roots of the lungs. Surgical anatomy of the root of the lung.

The definition of "mediastinum", the division of the mediastinum to the front, lower, upper, middle and rear. The bodies, which are located in these regions of the mediastinum.

Surgical anatomy of the thymus gland, the superior vena cava, the aortic arch and its branches, phrenic nerve.

Surgical anatomy of the heart and pericardium (skeletopy, Syntopy, blood supply, innervation, ways venous and lymphatic drainage). Congenital and acquired heart defects.

Surgical anatomy of the thoracic esophagus. Justification of accesses to the esophagus at various levels. Dissection of the esophagus. Operations in the congenital esophageal atresia and tracheo-esophageal fistula.

Surgical anatomy of the thoracic duct and steam hemiazygos veins, sympathetic trunk, the formation of visceral nerves, surgical anatomy of the aorta.

Anatomical and physiological study of surgical approaches to the lungs, heart, esophagus.

The main stages of lung resection and pneumonectomy.

Puncture of the pericardium. Wound Closure heart.

Mitral commissurotomy.

4. Questions for self-control

Surgical anatomy of the lungs, anatomical study on the division of pulmonary lobes and segments.

The concept of the gate and the roots of the lungs. Surgical anatomy of the root of the lung.

The definition of "mediastinum", the division of the mediastinum to the front, lower, upper, middle and rear. The bodies, which are located in these regions of the mediastinum.

Surgical anatomy of the thymus gland, the superior vena cava, the aortic arch and its branches, phrenic nerve.

Surgical anatomy of the heart and pericardium (skeletopy, Syntopy, blood supply, innervation, ways venous and lymphatic drainage). Congenital and acquired heart defects.

Surgical anatomy of the thoracic esophagus. Justification of accesses to the esophagus at various levels. Dissection of the esophagus. Operations in the congenital esophageal atresia and tracheo-esophageal fistula.

Surgical anatomy of the thoracic duct and steam hemiazygos veins, sympathetic trunk, the formation of visceral nerves, surgical anatomy of the aorta.

Anatomical and physiological study of surgical approaches to the lungs, heart, esophagus.

The main stages of lung resection and pneumonectomy.

Puncture of the pericardium. Wound Closure heart.

Mitral commissurotomy.

5. The basic and additional literature to the topic:

Main literature:

1.Topograficheskaya Anatomy and Operative Surgery edited I.I.Kagana, ID Kirpatovsky, Volume 1, 2, -2012g.

2.A.V.Nikolaev Topographic anatomy and operative surgery, 2013. Volume 1.2

3. V.D.Ivanova Selected lectures on operative surgery and clinical anatomy ,, Samara, 2009.

4. R.M.Zolinger (ml.) R.M.Zolinger (v) Atlas of Surgical Operations, 2009, Moscow

Additional literature:

1.V.I.Sergienko, E.A.Petrosyan, I.V.Frauchi Topographic anatomy and operative surgery, 2001g.- Volume 1, 2

2.Kalashnikov RN et al. A practical guide to operative surgery and topographic anatomy for anesthesiologists and emergency. Arkhangelsk 2000.

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Exercise №14

1.Tema class, its goals and objectives

Topographic anatomy of the abdominal cavity topography of the lumbar region, retroperitoneum, pelvis.

Acute peritonitis and currently remains the most common cause of deaths of acute surgical diseases of the abdominal cavity. Acute inflammatory diseases, traumatic injuries, tumors, malformations are quite common abdominal pathology. Acute and chronic pancreatitis, trauma, and tumors of the abdominal organs are a common pathology, requiring surgical intervention.

Goals and objectives

To study the topography of the peritoneum, its derivatives (ligaments, large and small seals, bags, channels).

To study the structure and topography of the stomach, liver, gallbladder and extrahepatic biliary tract, spleen, duodenum, pancreas, small intestine and colon, their syntopy, blood supply, innervation, lymphatic drainage, age features and malformations.

Give topographic anatomical study pathways of purulent process in the abdominal cavity.

Examine topographical relationships of anatomical structures lumbar region.

To study the weaknesses of the lumbar region.

Examine the location of fascial sheets and layers of cellular tissue of the retroperitoneal space.

To study the topography of the kidneys, adrenals and ureters - their skeletopy, syntopy, blood supply, innervation, lymphatic drainage.

To teach students holding surgical approaches to the kidneys

Learn the techniques of perirenal blockade.

Explore catheterization technique, puncture and section bladder.

2. The basic concepts that need to be learned by students in the course of the study subjects (the list of concepts).

Abdomen and its floors (border contents).

Bags upper abdomen.

The ground floor of the abdominal cavity.

Stomach and duodenal ulcers, blood supply, innervation and lymph flow.

Liver, blood supply, innervation, lymph flow, division into shares and segments.

The pancreas and spleen, blood supply and innervation.

3. Questions to the occupation

Abdomen and its floors (border contents).

Topography bags upper abdomen.

The topography of the ground floor of the abdominal cavity.

The topography of the stomach and duodenum, blood supply, innervation and lymph flow.

The topography of the liver, blood supply, innervation, lymph flow, division into shares and segments.

The topography of the pancreas and spleen, blood supply and innervation

4. Questions for self-control

The topography of the peritoneum, and the attitude of the abdominal organs.

How to explain the terms "abdomen" "abdomen".

Which bags are located in the top floor of the abdominal cavity, their topography?

The hole is formed by the gland, its practical value?

The ligaments of the liver is presented, its topography?

What is the basis of the segmental structure of the liver? Fractions and liver segments, their practical value. How is the blood supply to the liver, its venous outflow?

How is the gate Vienna, particularly its relationship with other elements of hepatocellular 12- ligament?

The triangle formed by Callot, its practical value?

What extrahepatic bile ducts make the way of the common bile duct? Malformations of the biliary tract.

How to spend the time to stop bleeding from the liver parenchyma

The presented ligaments stomach, what is its topography?

What features of the topography of the branches of the vagus nerves?

The topography of the spleen, its blood supply.

What a bunch of splenic artery is how to implement access to it when you remove the spleen?

What is the attitude of the 12-duodenum to the peritoneum? Their skeletopy.

How to conduct an audit of the pancreas?

What are the differences between large and small intestine? Their attitude to the peritoneum.

How to determine the initial and final sections of the small intestine, leading and outlet sections of its hinges?

How to find the appendix?

What part of the colon is used to overlay a colostomy, why?

Meckel's diverticulum, its practical significance.

How is the blood supply and venous drainage small and large intestines? What features of the blood supply have important practical value?

Malformations of the small and large intestines.

5. The basic and additional literature to the topic:

Main literature:

1.Topograficheskaya Anatomy and Operative Surgery edited I.I.Kagana, ID Kirpatovsky, Volume 1, 2, -2012g.

2.A.V.Nikolaev Topographic anatomy and operative surgery, 2013. Volume 1.2

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Practice number 15

1. Subject class, its goals and objectives

Operations in the abdominal cavity.

Injuries to the abdomen, accompanied by damage to the small bowel atresia, bowel necrosis as a complication of bowel obstruction require emergency surgery. Therefore, the mastery of technique overlay intestinal sutures, the ability to take in wound colon resection make it, to impose enteroanastomoz are necessary and often of interventions. Burns, inoperable tumors of the esophagus, congenital pyloric stenosis, foreign bodies, etc. Also require surgery. Damage to the liver, extrahepatic biliary tract, spleen, developmental abnormalities and surgical diseases of the above occur in medical practice quite often. The knowledge of anatomical and physiological characteristics of the structure of these bodies allows us to understand the uniqueness of pathological conditions and their complications, qualified to provide first and specialized medical care. More than a million appendectomies annually, Hirschsprung's disease, ulcerative colitis, colon tumors make up a significant proportion of pathology requiring surgical treatment.

Goals and objectives

The study methodology laparotomy and inspection of the abdominal cavity, the overlay intestinal sutures.

Mastering the technique of resection of the bowel, imposing enteroanastomoza, gastrostomy, gastrotomy, pylorotomy, cholecystectomy, splenectomy, suturing wounds liver, appendectomy, the imposition of fecal fistula and unnatural anus.

2. Basic concepts that must be learned by students in the course of the study subjects (the list of concepts).

Gastric fistula (by Witzel, Kader, Toproveru). Indications and technique.

Perforated gastric ulcer and duodenal ulcer.

Gastroenterostomy. Methods and techniques. The concept of a vicious circle.

Gastrectomy Billroth by the method-1, Billroth-2-Chamberlain Finsterer.

Vagotomy (stem, selective, selectively-proximal)

Enterectomy

Closure of wounds and colon resection, gemikolonektomiyai

Appendectomy.

Meckel's diverticulum.

Fistulas in the large and small intestine.

Preternatural anus.

3. Questions to the occupation

Operation overlay gastric fistula (by Witzel, Kader, Toproveru). Indications and technique.

Indications and machinery repair for perforated ulcers of the stomach and duodenum.

Gastroenterostomy. Methods and techniques. The concept of a vicious circle.

Gastrectomy Billroth by the method-1, Billroth-2-Chamberlain Finsterer. Indications, stages, characteristics. The concept of gastrectomy.

The concept of vagotomy (stem, selective, selectively-proximal) and draining operations on the stomach. Indications and methods.

Indications and technique of resection of the small intestine

Features suturing wounds and colon resection, the concept of gemikolonektomii.

The topography of the ileocecal corner of the appendix. Options anatomical position of the appendix and their practical importance. Methods of detection of the cecum and the appendix

Operation appendectomy. Quick access to the appendix and methods for selection. Operation removal Meckel diverticulum.

Indications and methods of imposing fistula on large and small intestine, their characteristics. Indications and methods of imposing unnatural anus.

4. Questions for self-control:

What types of intestinal sutures, you know?

What are the indications for resection of the small intestine, the stages of the operation?

Types interintestinal anastomoses, technology of their application.

How to conduct operations in stenosis of the small bowel, intestines intussusception?

What are the anatomical study of transrectal access to the stomach when the gastrostomy?

How suturing technique produces an intestinal loop isoperistaltic direction and a leading end of the intestine above the discharge?

How to conduct operations pylorotomy?

What are vagotomy and drainage operations?

As sutured wounds of the liver?

What is the sequence of revision of the abdominal cavity?

What anatomical and physiological basis of accesses to the abdominal organs?

Technique appendectomy.

Indications and technique overlay fecal fistula.

5. The basic and additional literature to the topic:

Main literature:

1.Topograficheskaya Anatomy and Operative Surgery edited I.I.Kagana, ID Kirpatovsky, Volume 1, 2, -2012g.

2.A.V.Nikolaev Topographic anatomy and operative surgery, 2013. Volume 1.2

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Practice number 16

1. Subject class, its goals and objectives

Operating day animals

Airway obstruction of different etiologies, respiratory disorders in various diseases and pathological conditions, prevention of respiratory failure require you to perform a tracheostomy. Exposure of large arteries is performed over an injury in order to stop bleeding during operations tromb- or embolectomy, intra-arterial injection of blood and others.

Rib resection is often performed at the chest injury. The need for resection of healthy ribs often in order to get advanced operational access to the chest cavity or ribs for the free use of bone grafting. Resection of the small portion of the rib is carried out at plevrotomii for drainage of pleural cavity.

Goals and objectives

To master the technique of performing a tracheostomy in animals to work the basic techniques of operation in conditions close to the clinic. To master the technique of exposure of the common carotid artery. To study methods of subperiosteal resection of the ribs and the operation. To master the techniques of temporary benefit in the open pneumothorax, open pneumothorax learn to take in, carry out a puncture of the pleural cavity.

2. The basic concepts that need to be learned by students in the course of the study subjects (the list of concepts).

Tracheostomy

Ligation of the carotid artery

Thoracectomy

Enteroplexy

Resection of bowel

3. Questions to the occupation

The technique of tracheostomy on animals

Technique of exposure of the common carotid artery.

Methods of subperiosteal resection of ribs

Methods temporary allowance at the open pneumothorax

Closure of open pneumothorax

Puncture of the pleural cavity.

4. Questions for self-control

Indications for the opening of the trachea and larynx.

Errors and danger tracheostomy.

Indications for artery ligation over.

Technique subperiosteal resection edges.

Technology puncture the pleural cavity.

5. The basic and additional literature to the topic:

Main literature.

1.Topograficheskaya Anatomy and Operative Surgery edited I.I.Kagana, ID Kirpatovsky, Volume 1, 2, -2012g.

2.A.V.Nikolaev Topographic anatomy and operative surgery, 2013. Volume 1.2

3. V.D.Ivanova Selected lectures on operative surgery and clinical anatomy ,, Samara, 2009.

4. R.M.Zolinger (ml.) R.M.Zolinger (v) Atlas of Surgical Operations, 2009, Moscow

Additional literature:

1.V.I.Sergienko, E.A.Petrosyan, I.V.Frauchi Topographic anatomy and operative surgery, 2001g.- Volume 1, 2

2.Kalashnikov RN et al. A practical guide to operative surgery and topographic anatomy for anesthesiologists and emergency. Arkhangelsk 2000.

3.Zhuravlev AG Case studies of operative surgery and topographic anatomy. Moscow, 2003

|  |  |
| --- | --- |
| **Sections and topics for self-study** | **Forms and content of independent work** |
| Processing surgeon's hands | reading of literature, preparation of presentations, watching movies. |
| endoscopic technology | Reading of literature , preparation of presentations , watching movies |
| New technologies in cardiac surgery. | Reading of literature , preparation of presentations , watching movies |
| Testing of manual skills of knitting surgical units , the use of surgical instruments | Reading of literature , preparation of presentations , watching movies |

Application 4 to the number of the working program of discipline

MINISTRY OF HEALTH OF THE RUSSIAN FEDERATION

State Educational Institution of Higher Professional Education

*" Northern State Medical University "*

Ministry of Health of the Russian Federation

FUND assessment tools

To conduct ongoing monitoring of progress , interim and final assessment of students.

BY DISCIPLINE

operative surgery and topographic anatomy.

2020y.

The structure and content of the section "Fund assessment tools "

⦁ map competences assessment

|  |  |  |  |
| --- | --- | --- | --- |
| **Codes generated competences** | **Name of competence** | **Stages of formation of competence** | **assessment Tools** |
| **Professional competence** | | | |
| **PК 16** | the ability and willingness to analyze the patterns of functioning of individual organs and systems ,  basic techniques of clinical and immunological examination and evaluation of the functional state of the body of an adult and a teenager for the timely diagnosis of diseases and pathological processes | know | Тесты:  1.26-2.036,  2.040-2.127; 2.135.-2.187  2.189-3.005  3.007-3.048  3.050-3.106  3.108-3.112  3.114-4.47  4.52-4.59  5.01-5.17  5.20-5.52  5.54-6.33  6.43-6.67  6.69-7.001  7.008-7.029  7.031-8.079  8.085-9.26  9.30-9.67  Case studies :  OVN -1-58  NO - 1-36  SO- 1-37  OT- 1-21  OAW- 1-27  TPS- 1-46  OPS - 1-18  TPR - 1-29 |
|  | the ability and willingness to analyze the patterns of functioning of individual organs and systems ,  basic techniques of clinical and immunological examination and evaluation of the functional state of the body of an adult and a teenager for the timely diagnosis of diseases and pathological processes | To be able to | Теsts:  2.037- 2.038  2.128-2.134  3.107; 3.113  4.48  6.34-6.42  6.68; 7.030  9.27; 9.28  Algorithms action :  4.49; 4.50; 4.51  7.002- 7.007  9.29  case studies:  ОVN- 1-21  АE-1-36  ОHP-19-30  ОPO-1-70 |
|  | the ability and willingness to analyze the patterns of functioning of individual organs and systems ,  basic techniques of clinical and immunological examination and evaluation of the functional state of the body of an adult and a teenager for the timely diagnosis of diseases and pathological processes | Own | Теsts:  1.17-1.25  2.128; 2.188  3.006; 3.049  4.60; 4.61;  8.080-8.084  5.18; 5.19; 5.53  Алгоритмы действий:  4.49; 4.50; 4.51  7.02- 7.007  9.29  Ситуационные задачи:  ОVN-1-19  ОN-28-34  ОT-47-65 |

**2. Evaluation tools for monitoring progress of students:**

**Questions of this test control**

1.28. The term "ligation artery over" means:

1) artery ligation at a distance of 2-3 cm from her injuries

2) ligation of artery proximal extremity

3) artery ligation is wound within the healthy tissue

4) ligation of the artery with a vein

5) Time stamp artery bypass using ligatures

1.30. Artery ligation is performed for:

1) necrosis of distal limbs

2) for the treatment of varicose veins

3) bleeding from wounds festering

4) bleeding from wounds smashed

5) The bleeding from the wound, situated in complex relationships topografoanatomicheskimi

1.31. Collateral circulation - is:

1) reduced blood circulation in the limb after the simultaneous ligation of the arteries and veins

2) blood flow in the side branches after the cessation of blood flow through the main vessel

3) blood flow in an upward direction

4) reduced blood circulation in the limbs

5) all of the above

1.33. The most common way to improve the collateral circulation:

1) the introduction of novocaine periarterial

2) the intersection of the wall of the artery between the two ligatures to relieve spastic action vasoconstrictors

3) regional hemoperfusion

4) massage

5) local thermal effect

1.36. When nerves outcrop used:

1) Only Direct access

2) Only devious approaches

3) Direct access to the deep-seated nerves

4) accesses to the roundabout superficial nerves

5) selection of access depends on the nature of the damage

1.37. Neurolysis or nevrolizis - is:

1) the destruction of nerve lesion site

2) the release of nerve scar adhesions

3) The resolution of the nerve trunk

4) scar nerve entrapment

5) pinched nerve bone fragments

1.40. Define the sequence of processes of nerve repair after crosslinking:

1) reducing the Schwann sheaths

2) restoration of nerve function

3) mielinnzatsiya nerve fibers

4) the germination processes of nerve cells

5) The fusion of connective tissue membranes

1.41. Requirements for tendon suture:

1) the minimum amount of gripping tendon bundles

2) ensuring the smooth surface of the tendon

3) the assumption pulping all the tendons

4) preservation of blood vessels and the blood supply to the tendon

5) To ensure the strength of the seam

6) all of the above

1.43. Amputation of limbs - a cut-off:

1) non-viable tissue

2) Of course at the level of joint

3) the affected limb

4) limb bones over

5) fabrics in order to maximize the viability of limb conservation

1.44. disarticulation limbs - a cut-off:

1) non-viable tissue

2) Of course at the level of joint

3) the affected limb

4) limb bones over

5) fabrics in order to maximize the viability of limb conservation

1.45. "The level of amputation" - a:

1) Place the dissection of soft tissues

2) place the greatest destruction of soft tissues

3) the place drunk too bones

4) the intersection of nerves

5) all of the above

1. 48. The length of the flap at the patchwork amputation is determined by:

1) in the area of ​​the circumference of the formula

2) the formula circumference

3) flaps Molds cut with a margin, and modeling of the stump is made at the end of the operation

4) the formula circumference based contractility skin

5) The area of ​​the circle by the formula given contractility skin

1.49. Location postoperative scar is desirable to complete the amputation:

1) on the working surface

2) on the trailing surface

3) at the end of the stump

4) on the surface of the skin with the most durable

5) the location of the scar does not matter

1.50. Depending on the composition of the flap amputation are:

1) fastsialnoplasticheskie

2) mioplasticheskie

3) periostoplasticheskie

4) osteoplastic

5) all of the above

1.51. The circular amputation are:

1) cross-sectional

2) dvuhmomentnye

3) trehmomentnye

4) chetyrehmomentnye

5) pyatimomentnye

1.52. The primary indication of amputation include:

1) gas gangrene

2) acute purulent inflammation, threatening the transition to the septic phase

3) a complete separation of the distal limb

4) necrosis of distal limbs

5) Open the injured limb, where the combined total break neurovascular bundles, the fragmentation and destruction of the bone more than 2/3 of soft tissue

1.54. To prevent bleeding during the use of amputation:

1) finger pressing of the arteries

2) tight bandaging of the limb amputation above

3) tourniquet

4) artery ligation over

5)

Ligating vessels as dissection of soft tissue

1.55. The ends of the nerves at the amputation truncate:

1) to prevent the development of neuroma

2) to prevent the development of phantom pain

3) to prevent the development causalgia

4) to form a neuroma small size

5) in order to better wound healing

1.57. After dissection of the muscles in the soft tissues of the amputation is pulled in a proximal direction with the help of:

1) gauze retractor

2) hooks farabeuf

3) the metal retractor

4) spatula Buyalsky

5) spatula to disconnect the soft tissues

1.59. Excision of the joint capsule is called:

1) resection

2) arthroplasty

3) synovectomy

4) arthrodesis

5) arthrotomy

1.60. Excision of articular ends of bones affected by a pathological process, is called:

1) resection arthroplasty

2) arthroplasty

3) synovectomy

4) arthrodesis

5) arthrotomy

1.64. Operation restore mobility in suspm by excision of fibrous adhesions between the articular surfaces:

1) arthrodesis

2) arthrolysis

3) arthroplasty

4) arthrotomy

5) resection arthroplasty

1.65. Operation restore joint function by the replacement of damaged or functionally obsolete its elements:

1) arthrodesis

2) arthrolysis

3) arthroplasty

4) arthrotomy

5) resection arthroplasty

1.66. Operation incision to remove bone deformation:

1) osteoplastica

2) fixation

3) osteotomy

4) resection of the bone

1.67. Operation compound bone and eliminate their mobility:

1) osteoplastica

2) fixation

3) osteotomy

4) resection of the bone

1.68. Operation restore anatomical integrity, form and function of a bone defect replacement of its bone graft:

1) osteoplastica

2) fixation

3) osteotomy

4) Prosthetics

1.69. Aperiosteal a method of treating bone when amputation is the dissection of the periosteum, is slid dis-tal and sawing bone:

1) on the edge of the periosteum

2) immediately step back from the periosteum

3) some distance from the edge of the periosteum for 3-5 mm

4) some distance from the edge of the periosteum to 5-1

2.001. The front wall of the axilla are:

1) the major and minor pectoral muscles

2) chest wall with the serratus anterior muscle

3) the supraspinatus and infraspinatus muscles

4) humerus with coracobrachialis muscle and biceps

5) subscapularis, teres major muscle and latissimus dorsi

2.002. The back wall of the axilla are:

1) the major and minor pectoral muscles

2) chest wall with the serratus anterior muscle

3) the supraspinatus and infraspinatus muscles

4) humerus with coracobrachialis muscle and biceps

5) subscapularis, teres major muscle and latissimus dorsi

2.003. The inner wall of the axilla are:

1) the major and minor pectoral muscles

2) chest wall with the serratus anterior muscle

3) Mr. supraspinatus infraspinatus muscle

4) humerus with coracobrachialis muscle and biceps

5) subscapularis, teres major muscle and latissimus dorsi

2.004. The outer wall of the axilla are:

1) the major and minor pectoral muscles

2) chest wall with the serratus anterior muscle

3) the supraspinatus and infraspinatus muscles

4) humerus with coracobrachialis muscle and biceps

5) subscapularis, teres major muscle and latissimus dorsi

1.006. The surgeon exposes the axillary neurovascular bundle cut along the anterior border of the axilla. The first anatomical formation, with whom he will meet, is:

1) axillary artery

2) axillary Vienna

3) brachial plexus

1.007. In the course of the operation in the armpit surgeon it was necessary to determine the median nerve. Specify the main feature of the median nerve in the axilla:

1) the location of the lateral ulnar nerve

2) located on the front surface of the axillary artery

3) the formation of nerve merger of the two legs

2.014. Axillary artery ligation should be applied:

1) at any level

2) somewhat higher level as a discharge) subscapularis

3) and a discharge below) subscapularis

4) at the lower edge of the pectoralis major muscle

5) at the lower edge of the pectoralis minor

2.020. Axillary fiber communicates with the fiber-poddelto prominent space in the course:

1) subscapularis artery

2) the axillary artery

3) the median nerve

4) axillary nerve

5) of the radial nerve

2.021. Surface subpektoralnoe cellular spaces concluded between:

1) deep leaf sternoclavicular fascia and ribs

2) the ribs and serratus anterior muscles

3) the pectoralis major muscle and breast-clavicular fascia

4) the major and minor pectoral muscles

5) private and superficial fascia subclavian region

2.022. Deep subpektoralnoe cellular spaces located between the muscles:

1) deltoid and pectoralis major

2) small and large pectoral

3) the serratus anterior and subscapularis

4) large round and chuck

5) small chest and intercostals

2.025. After a four-sided hole in the back wall of the axilla are two entities:

1) artery, the envelope of the shoulder blade

2) anterior artery, the envelope of the humerus

 3) posterior artery, the envelope of the humerus

 4) the radial nerve

 5) axillary nerve

2.026. Through a three-way hole in the back wall of the axilla passes:

1) artery, the envelope of the shoulder blade

2) subscapularis artery

3) anterior artery, the envelope of the humerus

4) rear artery envelope humerus

2.030. From the medial cord of the brachial plexus nerve formed four:

1) ulnar nerve

2) the radial nerve

3) the lateral leg of the median nerve

4) Medial leg of the median nerve

5) the medial cutaneous nerve of arm

6) the medial cutaneous nerve of forearm

7) musculocutaneous nerve

8) axillary nerve

2.031. From lateral cord of the brachial plexus formed two nerves:

1) ulnar nerve

2) the radial nerve

3) the lateral leg of the median nerve

4) Medial leg of the median nerve

5) the medial cutaneous nerve of arm

6) the medial cutaneous nerve of forearm

7) musculocutaneous nerve

8) axillary nerve

2.032. From the rear beam brachial plexus formed two nerves:

1) ulnar nerve

2) the radial nerve

3) the lateral leg of the median nerve

4) Medial leg of the median nerve

5) the medial cutaneous nerve of arm

6) the medial cutaneous nerve of forearm

7) musculocutaneous nerve

8) axillary nerve

2.037. When the shoulder joint cavity puncture needle is inserted in the front:

1) under the coracoid process of the scapula

2) under the convex portion acromion process of the blade through the thickness of the deltoid muscle

3) under the rear edge of the acromion process of the scapula, between the rear edge of the deltoid muscle and the lower edge of the supraspinatus

4) in the top of the armpit

2.038. When the shoulder joint cavity puncture needle is inserted behind:

1) under the coracoid process

2) under the convex portion acromion process through the thickness of the deltoid muscle

3) under the rear edge of the acromion process of the scapula, between the rear edge of the deltoid muscle and the lower edge of the supraspinatus

4) in the top of the armpit

2.045. In the shoulder there are two fascial bed:

1) back

2) the lateral

3) medial

4) front

2.046. In front fascial bed are three shoulder muscles:

1) biceps

2) triceps shoulder

3) coracobrachialis muscle

4) pronator teres muscle

5) shoulder muscle

2.047. The rear shoulder fascial lodge is located:

1) biceps

2) triceps shoulder

3) coracobrachialis muscle

4) pronator teres muscle

5) shoulder muscle

2.051. Pulsation of the brachial artery can be determined:

1) at the outer edge of the biceps

2) at the point of attachment to the humerus deltoid

3) at the inner edge of the deltoid muscle

4) in the middle of the medial surface of the shoulder

5) pulsation of the artery may be palpated on the shoulder

2.052. At the outcrop of the brachial artery is used circuitous access due to location:

1) of the median nerve at the medial surface of the brachial artery

2) shoulder veins between the brachial artery and its own fascia shoulder

3) of the ulnar nerve on the medial surface of the brachial artery

2.054. At the roundabout access to the brachial artery incision is carried out:

1) on the medial sulcus shoulder

2) 1-1.5 cm anterior to the medial sulcus shoulder

3) 1-1.5 cm posterior to the medial sulcus shoulder

2.056. The surgeon has exposed the brachial artery in the upper third of the shoulder with the aim of dressings. Determine the preferred level of the brachial artery ligation with the preservation of blood supply to the position of the distal limb:

1) preferred ligation to a discharge of the deep artery of arm

2) preferably ligation after discharge of the deep artery of arm

3) Both are equally possible level dressings

4) both levels of undesirable needed ligation of the brachial artery in the lower third of the shoulder

2.060. The shoulder-muscle channel are two entities:

1) brachial artery

2) deep artery of arm

3) ulnar nerve

4) the radial nerve

5) the median nerve

2.063. The projection of the median nerve in the elbow region, used to perform conduction anesthesia is:

1) at the medial edge of the biceps tendon

2) midway between the medial epicondyle of the humerus and the medial edge of the biceps tendon

3) 1.5 cm from the medial epicondyle outward shoulder

4) at the lateral margin of the biceps tendon

5) on the 0.5 cm medially from the lateral epicondyle of the shoulder

2.064. When performing venesection in the ulnar fovea should be borne in mind that the median elbow Vienna is located:

1) in the subcutaneous fat

2) in the superficial fascia duplikatury

3) between the surface and its own fascia

4) under its own fascia

2.065. When measuring blood pressure in the capsule phonendoscope ulnar fossa should be placed:

1) at the lateral margin of the tendon of the biceps

2) in the tendon of the biceps

3) at the medial edge of the biceps tendon

4) at the medial epicondyle of the humerus

2.066. At the outcrop of the brachial artery in the cubital fossa should be borne in mind that the median nerve is located with respect to the artery:

1) literally

2) Front

3) Rear

4) medially

2.067. At the level of the elbow ulnar nerve is located:

1) in front of the lateral ulnar groove

2) in front of the medial ulnar groove

3) at the rear between the lateral epicondyle and the olecranon

4) at the rear between the medial epicondyle and the olecranon

2.068. At the level of the elbow radial nerve is located:

1) in front of the lateral ulnar groove

2) in front of the medial ulnar groove

3) at the rear between the lateral epicondyle and the olecranon

4) at the rear between the medial epicondyle and the olecranon

2.069. Puncture of the elbow at the medial epicondyle of the humerus is not performed because of the risk of damage:

1) radial nerve

2) ulnar nerve

3) of the brachial artery

4) shoulder veins

5) of the median nerve

2.073. On the forearm are three fascial bed:

1) front, rear, lateral

2) front, rear, medial

3) front, lateral, medial

4) back, lateral, medial

2.074. Install the distribution of the forearm muscles of the front of four layers:

1) 1st layer A) deep flexor digitorum

2) 2nd layer B) long palmar muscle

3) the 3rd layer B) flexor pollicis longus muscle

4) The 4th layer T) square pronator

                        D) pronator teres muscle

                        E), flexor carpi ulnaris

                        F) radiation flexor carpi

                        3) brachioradialis muscle

                        And) superficial flexor finger

2.075. Deep forearm cellular spaces (the space of Parona-Pirogov) is limited (set line):

1) Front A) flexor hallucis longus

2) at the rear B) square pronator

                          B) deep flexor digitorum

                          D) interosseous membrane

2.077. The median nerve is located in the same name on the forearm in the groove:

1) the upper third

2) the middle third

3) the lower third

2.078. In the ulnar groove anterior forearm ulnar nerve accompanies the ulnar artery in:

1) the upper third

2) the middle third

3) the lower third

2.079. The radial groove front forearm radial artery is not accompanied by a superficial branch of the radial nerve in:

1) the upper third

2) the middle third

3) the lower third

2.080. To determine the most suitable pulse is the radial artery in the lower third of the front of the forearm, which is primarily due to:

1) located directly under its own artery fascia of the forearm

2) located on the surface of the artery radius

3) large diameter radial artery

4) about the lack of a major artery and vein nerve

2.081. The projection line extending from the radial artery:

1) internal epicondyle of the shoulder to the outer edge of the pisiform bone

2) the medial edge of the biceps tendon to a point located 0.5 cm medially from the styloid process rays

3) the lateral epicondyle of the shoulder to the pulse point on the forearm

4) mid-cubital fossa to the inner edge of the pisiform bone

5) of the medial epicondyle of the shoulder to the pulse point

2.082. To expose the ulnar artery two statements are true:

1) The projection line is defined between the middle artery cubital fossa and pisiform bone

2) The projection line is defined by the artery between the medial epicondyle of the humerus bone and pisiform

3) The ulnar artery is located lateral to the ulnar nerve

4) The ulnar artery is located medial to the ulnar nerve

2.083. The autopsy phlegmon cellular spaces Parona- Pirogov incisions are made on:

1) of the front surface of the forearm

2) the back surface of the forearm

3) the lateral surface of the forearm

4) the medial surface of the forearm

5) the lateral surfaces of the forearm

2.085. To memorize the features of innervation of the skin of the fingers need to know the rule of thumb:

1) Vanya

2) Bayern

3) Two

4) DIE

5) in the middle of the ladies, the gentlemen on each side

2.088. In the palm isolated wick containers:

1) one

2) two

3) Three

4) four

5) Five

2.090. When the cuts in the "exclusion zone" brush may be damaged:

1) finger flexor tendons

2) the flexor tendon of the long thumb

3) motor branch of the median nerve in violation of the opposable thumb

4) surface arterial palmar arch

5) The elevation of the thumb muscles

2.091. If the damage is superficial branch of the radial nerve in the forearm suffer motor function:

1) 1 pin

2) 1 and 2, the fingers

3) 1,2,3 fingers

4) all the fingers

5) does not suffer

2.092. Superficial palmar arch is formed by the link:

1) ulnar artery with deep branch of the radial artery

2) ulnar artery superficial branch of the radial artery

3) the radial artery with deep branch of the ulnar artery

4) radial artery with superficial branch of ulnar artery

2.093. The deep palmar arch is formed by the link:

1) ulnar artery with deep branch of the radial artery

2) ulnar artery superficial branch of the radial artery

3) the radial artery with deep branch of the ulnar artery

4) radial artery with superficial branch of ulnar artery

2.095. Subgaleal Piast fiber brushes lies between:

1) skin and palmar aponeurosis

2) The palmar aponeurosis and tendons of the flexor surface of fingers

3) superficial and deep digital flexor

4) The deep digital flexor and deep palmar fascia

5) the deep palmar fascia and intercostals muscles

2.096. The distal border synovial sheaths of fingers is determined at the level of:

1) the top of the distal phalanx

2) the middle of the distal phalanx

3) The base of the distal phalanx

2.097. The proximal limit of the synovial sheaths of fingers 2,3 and 4 is determined at the level of:

1) the base of the proximal phalanx

2) heads of metacarpal bones

3) the middle metacarpals

4) the grounds metacarpals

2.098. Theproximalborderofthelateralandmedialsynovialbagsbrush, theextensionofthesynovialsheaths, respectively1and5fingers, oftendeterminedby:

1) intothecarpaltunnel

2) throughthewristjoint

3) 2cmproximaltotheapexofthestyloidprocessoftheradius

2.100. Asharppainduringsubcutaneousfelonpalmarsurfaceofthefingercausedby:

1) rapidaccumulationofpusinthesubcutaneoustissueandnerveendingsdevelopingischemia

2) thestimulationofcutaneousnociceptors

3) stimulationofthenervesoftheirownfinger

4) stretchingfibroticbridgessubcutaneousfat

2.101. Throughholescommissuralpalmarfasciasubcutaneoustissuecommunicateswiththepalmofyourhand:

1) subgalealcellularspacespalm

2) podsuhozhilnymcellularspacespalm

3) synovialsheaths2-5fingers

4) Parona-cellularspacesPirogov

5) Caseworm-likemuscles

2.102. Subcutaneousfelonatdistalyyuyphalanxcanbecomplicated:

1) tendonfelon

2) bonefelon

3) articularfelon

4) phlegmoncellularspacespalm

2.104Inflammatoryprocessesonthepalmarsurfaceofthefingersandwristareoftenaccompaniedbysevereswellingofthebackofthehand, whichisdueto:

1) disseminationofedemakletchatochnyhinterfascialslots

2) theprimarylocationonthebackofthehandsuperficialveins

3) Gotothebackofthehandthebulkoflymphaticvessels

2.105. Oneofthecomplicationsofacutepurulenttenosynovitisisnecrosisofthefingerflexortendons, whichisdueto:

1) compressedittendonpusaccumulateinthesynovialsheath

2) purulentmeltinginthesynovialtendonsheath

3) compressionofbloodvesselsmesenteriolumtendonpusaccumulateinthesynovialsheath

2.106.U- shapedabscess - is:

1) purulenttenosynovitisIand5fingers

2) purulenttenosynovitis2and4fingers

3) purulenttenosynovitis2and3fingers

4) purulentlesionintermuscularintervalselevation1and5fingers

5) alloftheabove

2.107. Inpatientswithacutetenosynovitis1tonfingercomplicatedU-shapedphlegmonbrush, whichwasdueto:

1) disseminationofpusinterfascialkletchatochnyhcracksandspacespalm

2) thespreadofinfectionthroughthebloodvesselsofthesuperficialpalmararch

3) anintermittentcommunicationbetweenthemedialandlateralsynovialbagspalm

2.108. Whenpurulenttenosynovitisincisionsinthedistalphalanges:

1) isnotcarriedoutduetotheabsenceofthedistalphalanxofthesynovialsheathsoftendons

2) iscarriedoutnecessarilyforbetterdrainageofpus

3) conductatypicalsectionsofClapp

4) iscarriedoutonlyonthesidesurfaces

5) iscarriedoutnearthejoint

2.109. Theautopsypurulenttenosynovitiscorrectstatement:

1) theintersectionofthemesenteryisadmissiblebecausemesenterytendoninjuryisnotdangeroustoitsbloodsupply

2) damagetothetendonwillbreakthepowerofthemesenterytendonandleadtoitsnecrosis

3) damagetothetendonofthemesenteryshouldbeavoided

4) damagetothetendonofthemesenterydisruptitsfunction

5) theintersectionofthemesenteryisnecessarytomobilizethetendon

2.110. Theneedforurgentsurgicalinterventioninpurulenttenosynovitisoftheflexortendonsofthefingersisduetotheabilityto:

1) disseminationofpusinthecellularspacesParona-Pirogov

2) thetransitionprocessinthebonetissue

3) necrosisofthetendonsduetocompressionofthemesentery

4) thedevelopmentofsepsis

5) therisingspreadofpuscellularspacesoftheupperlimb

2.111. Thecutsonthefingerswithpurulenttenosynovitisshouldbedone:

1) onthepalmarsurface

2) onthebacksurface

4) inthedistalphalanx

5) ontheanterolateralsurface

interphalangealjoints

2.115. Specifythepositionwhichbecomestheupperlimbisdamagedradialnerve:

1) "handobstetrician"

3) "MonkeyBrush"

4) "thehandofabeggar"

5) "whip"

2.116. "MonkeyBrush"isdetectedinlesionsofnerve:

1) median

2) radiation

3) elbow

4) musculocutaneous

atdefeatnerve:

2.117. "Claw"isdetectedinlesionsofnerve:

1) median

2) musculocutaneous

3) elbow

NECK

4.53. According to the classification proposed by VN Shevkunenko on neck

release:

1) two fascia

2) three fascia

3) Four fascia

4) Five fascias

5) six fascias

4.58. Bifurcation of the common carotid artery often located at:

1) the angle of the mandible

2) the upper edge of the thyroid cartilage

3) hyoid bone

4) the middle of the thyroid cartilage

5) the lower edge of the thyroid cartilage

4.59. For the external carotid artery are two characteristic features:

1) the existence of branches of the flue

2) the absence of side branches

3) the location of the medial

4) lateral location

5) weak ripple compared to the internal carotid artery

5.16. Pleural effusion primarily begins to accumulate in the sinus:

1) costophrenic

2) edge-mediastinum

3) mediastinal, diaphragmatic

5.17. When you run a diagnostic pleural puncture punctured:

1) costophrenic sine

2) edge-mediastinal sinus

3) mediastinal, diaphragmatic sine

5.18. Set the line. Place pleurocentesis:

1) between the front and middle axillary lines

2) between the middle and posterior axillary lines

3) between the mid-axillary line and the shoulder

A) VI or VII intercostal

B) VII or VIII intercostal

B) VIII or IX intercostal space

5.19. When performing pleural puncture needle through the intercostal space should be done:

1) at the lower edge of the overlying ribs

2) midway between the ribs

3) at the upper edge of the underlying rib

5.24. At the gate of the left main bronchus and lung pulmonary vessels are arranged from top to bottom in the following order:

1) artery, bronchus, veins

2) bronchus, artery, vein

3) vein, bronchus, artery

5.25. At the gate of the right lung and bronchus is the main pulmonary vessels are arranged from top to bottom in the following order:

1) artery, bronchus, veins

2) bronchus, artery, vein

3) vein, bronchus, artery

5.26. Make a comparative anatomical description of each main bronchus by associating three parameters:

1) Left main bronchus 2) the right main bronchus

A) wider

B) has

B) long

D) shorter

D) are arranged horizontally

E) is aertikalnee

5.36. Lung segment - a portion of the lung, in which:

1) branches segmental bronchus

2) branch segmental bronchus and pulmonary artery branch of the 3rd order

3) segmental bronchi branch, branch of the pulmonary artery of the 3rd order and formed the corresponding Vienna

5.58. Neck vagosympathetic blockade chest injuries when carried out in order:

1) pain relief

2) reduce the effects of hypoxia

3) the fight against plevropulmonalnym shock

4) prevention of pneumonia

5) hyperventilation

6.01. The most accurate position of the frontal plane, which divides the mediastinum on the front and rear sections - Level

1) The rear surface of the roots of the lungs and the posterior wall of the trachea

2) the middle of the trachea and main bronchi

3) front surface roots of the lungs

6.02. Set the line departments of the mediastinum:

1) the anterior mediastinum

2) the posterior mediastinum

A) of the thymus gland

B) Esophagus

In) the heart with pericardium

D) the trachea

6.03. Set your vessels mediastinum:

1) the anterior mediastinum

2) the posterior mediastinum

A) of the upper hollow Vienna

B) internal mammary artery

B) ascending aorta

D) thoracic duct

 D) aortic arch

E) pulmonary trunk

F) descending aorta

 3) and unpaired vein hemiazygos

6.04. Set your nerves mediastinum:

1) the anterior mediastinum

2) the posterior mediastinum

A) vagus nerves

B) large and small splanchnic nerves

B) of the phrenic nerve

 D) sympathetic trunk

 6.62. When suturing the wound closed with stitches heart;

1) nodes or U-shaped

2) nodal or continuous

3) U-shaped or continuous

 6.63. For the operation of suturing wounds ventricle following three statements are true:

1) joints should be imposed atravmatncheskimi needles

2) superimposed on the heart wall interrupted sutures

3) superimposed on the heart wall continuous seam

4) for suturing can not pierce the endocardium

5) it is impossible to capture in a joint major artery podepikardialnye

6.64. Puncture of the pericardium is performed most often in Larrey's point. Specify its location:

1) between the xiphoid process and the left costal arch

2) between the xiphoid process and the right costal arch

3) in the 4th intercostal space to the left of the sternum

6.65. Direction of needle puncture pericardium:

1) at an angle of 90 ° to the surface of the body

2) upwardly at an angle of 45 ° to the surface of the body

3) up and to the left at an angle of 45 ° to the surface of the body

6.66. When the pericardium puncture needle held in the sinus cavity of the pericardium:

1) a forward

2) the lower front

3) Cross

6.67. In modern cardiac surgery for the treatment of coronary artery disease used four operations:

1) coronary artery bypass grafting

2) balloon dilatation of coronary artery

3) imposition of coronary-thoracic anastomosis

4) dressing internal thoracic arteries

5) perikardiokardiopeksiyu

6) sympathectomy

7) coronary artery stenting

6.68. Set correspondence between the aorta and blood vessels are joined bypass surgery free of venous autograft:

1) the ascending aorta A) big heart Vienna

2) aortic arch B) coronary arteries

3) thoracic aorta) coronary sinus

7.007. The surgeon performs appendectomy obliquely variable cut along Volkovnchu-Dyakonov in the right groin. Specify the sequence of layers passing this area:

1) aponeurosis of the external oblique abdominal muscles

2) internal oblique and transverse muscles

3) a deep piece of the superficial fascia

4) the skin with subcutaneous fat

5) parietal peritoneum

6) superficial fascia

7) transverse fascia

8) predbryushinkaya fiber

9) own fascia

7.010. One of the prerequisites for the development of anatomical umbilical hernia is a weakness of the umbilical ring in the area:

1) lower its polukruzhnosgi

2) the top of the semicircular

3) Right semicircular

4) left semicircular

7,011. The white line of the abdomen is formed by:

1) the aponeurosis of the external oblique abdominal muscles

2) fascia of the internal oblique abdominal muscles

3) aponeurosis transversus abdominis

4) tendon bundles of 3 pairs of broad abdominal muscles

5) intra fascia

7,012. Within navel abdominal wall is represented by the following four layers:

1) Leather

2) subcutaneous fat

3) superficial fascia

4) umbilical fascia

5) intraperitoneal fascia

6) preperitoneal tissue

7) the peritoneum

7,013. When performing transrectal epigastric incision the surgeon opened the front wall of the rectus sheath. On the level above the semicircular line of the front wall of the vagina is formed:

1) aponeurosis of the external oblique, the internal oblique and transverse muscles

2) the aponeurosis of the external oblique, the internal oblique muscle and transverse fascia

3) external oblique aponeurosis and the internal oblique muscle

4) aponeurosis of the internal oblique abdominal muscles

7.014. Transrectal sections is not recommended to cross the tendon jumpers rectus abdominis, which is caused by the presence of:

1) lymphatic vessels

2) nerve plexus

3) supply of blood vessels

4) porto-caval anastomoses

7,019. The resulting development of the fetus median vesicoumbilical fold includes:

1) obliterated umbilical artery

2) obliterated umbilical vein

3) obliterated urachus

4) the vas deferens

7.020. Lateral vesico-umbilical fold of peritoneum contains:

1) inferior epigastric artery and vein

2) obliterated umbilical artery

3) obliterated umbilical vein

4) obliterated urachus

5) the vas deferens

7,021. Median vesico-umbilical fold of peritoneum contains:

1) inferior epigastric artery and vein

2) obliterated umbilical artery

3) obliterated umbilical vein

4) obliterated urachus

5) the vas deferens

7,022. In the right hypochondrium usually projected:

1) part of the right lobe of the liver

2) the spleen

3) of the right kidney

4) the tail of the pancreas

5) the right bend of the colon

6) the gallbladder

7.023. On the front side wall of the abdomen stomach is projected in the following areas:

1) in the left and umbilical infracostal

2) the left and proper infracostal epigastric

3) the left and right hypochondrium

4) in the left and right side infracostal

7,024. The projection area of ​​the gall bladder on the front wall of the abdomen is:

1) the right lateral abdominal region

2) the right subcostal region

3) the umbilical region

4) epigastrium

7,039. The boundaries of the inguinal triangle are:

1) the horizontal line drawn from the upper anterior iliac spine to the navel

2) inguinal ligament

3) the horizontal line drawn from the boundary between the outer and middle third of the inguinal ligament

4) the outer edge of the rectus abdominis muscle

5) white line

7,041. Groin period - is:

1) the distance between the outer and inner rings of the inguinal canal

2) the distance between the inguinal ligament and the lower edges of the internal oblique and transverse muscles

3) the distance between the inguinal ligament and lateral fascia

4) the distance between the front and rear walls of the inguinal canal

5) inguinal gap does not exist

7,042. The space below the inguinal ligament is divided into:

1) hernia, muscle and vascular lacuna

2) hernia and muscle gaps

3) hernia and vascular lacuna

4) muscle and vascular lacuna

5) muscle and vascular lacuna and the femoral canal

7,044. In the formation of the external opening of the inguinal canal involves three education:

1) split on leg aponeurosis of the external oblique abdominal muscles

2) transverse fascia

3) superficial fascia

4) pubic bone

5) fiber interpeduncular

7,045. The front wall of the inguinal canal is:

1) lateral fascia

2) parietal peritoneum

3) the aponeurosis of the external oblique abdominal muscles

4) The lower edges of the internal oblique and transverse muscles

5) inguinal ligament

7.046. The back wall of the inguinal canal is formed by:

1) parietal peritoneum

2) the inguinal ligament

3) transverse fascia

4) aponeurosis of the external oblique abdominal muscles

7,047. The bottom wall of the inguinal canal is formed by:

1) the lower edges of the internal oblique and transverse muscles

2) the inguinal ligament

3) pectinate fascia

4) parietal peritoneum

5) aponeurosis of the external oblique abdominal muscles

7.050. Inguinal ligament is the wall of the inguinal cocoa:

1) the upper

2) Lower

3) back

4) The front

7,051. Spigelieva line - a line:

1) carried out on the edge of the right hypochondrium

2) held on the edge of the left hypochondrium

3) connecting the front upper iliac spine

4) transition line of the muscle fibers in the transverse abdominal muscles and the fascia is projected on the outer edge of the rectus abdominis

7,053. Inguinal hernias are most often:

1) in men

2) female

3) in children regardless of sex

4) old people irrespective of sex

5) there are no laws

7,054. Anatomically prerequisite for the formation of inguinal hernias is:

1) the presence of inguinal gap

2) there is a wide gap inguinal

3) the existence of a narrow span of the inguinal

4) the absence of inguinal gap

5) the lack of intra-abdominal fascia

7,055. Patient dnagnostnrovana inguinal hernia. Anatomical way way out of this type of hernia is:

1) lateral inguinal fossa

2) nadpuzyrnaya fossa

3) the medial inguinal fossa

4) muscle lacuna

5) vascular lacuna

7.056. Anatomic locations exit oblique inguinal hernias is:

1) lateral inguinal fossa

2) the medial inguinal fossa

3) muscular lacuna

4) nadpuzyrnaya fossa

5) vascular lacuna

7.058. The rear wall of the femoral canal is:

1) femoral Vienna

2) femoral nerve

3) surface sheet of fascia lata

4) comb fascia

5) inguinal ligament

7,059. Posteroventral wall of the inner ring of the hip:

1) vagina femoral vein

2) comb bunch

3) inguinal ligament

4) the vagina femoral artery

5) any one of embodiments

7.060. The medial wall of the inner ring of the hip:

1) vagina femoral vein

2) inguinal ligament

3) lacunar ligament (Zhimbernatova)

4) edge of the internal oblique and transverse abdominal muscles

5) rectus sheath

7,062. When purchasing external oblique inguinal hernia elements of the spermatic cord in relation to the shells of the hernia sac:

1) closely linked

2) loosely are adjacent to each other

3) separated by a distance

4) wide separated abdominal muscles

5) none of the options is not suitable

7,063. In congenital inguinal hernia elements of the spermatic cord in relation to the shells of the hernia sac:

1) is firmly soldered

2) loosely are adjacent to each other

3) separated by a distance

4) separated by transverse fascia

5) none of the options is not suitable

7,064. When retrograde infringement (hernia type «W») in the hernial sac discover:

1) a loop of small intestine

2) The loop of the colon

3) greater omentum

4) multiple loops of the small intestine

5) none of the options is not suitable

7,065. On opening the hernial sac in a patient with strangulated inguinal hernia, the surgeon did not find it altered the intestinal loops. When slightly pulling for intestinal loops of the abdomen shows the change portions of the intestinal wall. It made him think of the form of infringement:

1) fecal

2) near the wall

3) retrograde

4) Elastic

7,067. Hernial sac in congenital inguinal hernia formed:

1) processus vaginalis of peritoneum

2) the parietal peritoneum

3) mesentery

4) shell eggs

5) of the bladder wall

7,068. The term "groin period" means:

1) the diameter of the internal inguinal ring

2) the diameter of the external inguinal ring

3) the distance between the upper and lower walls of the inguinal canal in its medial portion

4) area hernial ring

5) The distance between the legs of the external inguinal ring

7,069. The back wall of the inguinal canal is strengthened:

1) at oblique inguinal hernia

2) with direct inguinal hernia

3) in congenital inguinal hernia

4) strangulated hernia

5) determined by the desire of the surgeon

7,072. When plastic inguinal canal in a patient with external oblique inguinal hernia surgeon's actions are aimed at strengthening the wall of the inguinal canal:

1) the upper

2) Front

3) back

4) lower

7,073. When plastic inguinal canal in a patient with direct inguinal hernia surgeon's actions are aimed at strengthening the wall of the inguinal canal:

1) the upper

2) Front

3) back

4) lower

7,087. The structure of the spermatic cord contains three anatomical elements:

1) vas deferens

2) urachus

3) vessels and nerves of the vas deferens and the testicle

4) The remains of the processus vaginalis of peritoneum

5) iliohypogastric nerve

7,094. During the operation, strangulated femoral hernia should dissect the inner wall of the femoral ring:

1) the upper

2) lower

3) lateral

4) medial

7,095. "Crown of Death" - a variant of a discharge of the arteries:

1) of the femur

2) the lower epigastric

3) upper epigastric

4) obturator

5) the internal iliac

7,096. When the plastic umbilical hernia Mayo joined by the following tissues:

1) right and left edges of the broad fascia of the abdominal muscles

2) upper and lower edges of the broad fascia of the abdominal muscles

3) The inner edges of the rectus abdominis muscle

4) the inner edges of the aponeurosis of the external oblique abdominal muscles

5) the inner edges of the fascia own navel

7,097. When the plastic umbilical hernia Sapezhko by connecting the following tissues:

1) The inner edges of the rectus abdominis muscle

2) The top and bottom edges of the aponeurosis three broad abdominal muscles

3) The inner edges of the fascia three broad abdominal muscles

4) the inner edges of the aponeurosis of the internal oblique abdominal muscles

5) the inner edges of the aponeurosis of the external oblique abdominal muscles

7,098. When the middle-middle lalarotomii:

1) Right stomach bypass

2) stomach bypass Left

3) along the navel dissect

4) cut through across the navel

5) the choice of the parties does not matter

7.099. When the plastic femoral channel Rudzhn crosslinked inner wall of the femoral ring:

1) upper-front and back-bottom

2) lateral and medial

3) the lateral and posterior-lower

4) the lateral and upper-front

5) the medial and upper-front

7.100. When the plastic femoral channel Rudzhn crosslinked:

1) the inguinal ligament and the iliopsoas muscle

2) the inguinal ligament and iliac fascia comb

3) lacunary ligament and the periosteum of the pubic bone

4) lacunary ligament and femoral vein sheath

5) inguinal ligament and ligament lacunary

7.101. When the plastic ring on the umbilical hernia Lexer in seam grip:

1) the medial edge of the rectus abdominis muscle

2) the edge of its own fascia

3) edge of the superficial fascia

4) edge of fascia three broad abdominal muscles

5) edges of the aponeurosis of the internal oblique abdominal muscles

7.102. Cross laparotomy meet three requirements:

1) ensure compliance with the cut anatomical organ projection

2) provide sufficient exposure of the body

3) have a small traumatic

4) provide a lasting postoperative scar formation

7.103. Alternately quick access to the organs of the abdominal cavity suggests:

1) dissection of tissue layers of the abdominal wall in one direction

2) cutting of all tissues of the abdominal wall with one layer in one direction

3) cutting of all tissues of the abdominal wall layers in different directions

4) applying multiple skin incisions in the abdominal wall

5) All answers are incorrect

7.104. One of the symptoms of a number of diseases associated with stagnation in the portal vein, is the extension of the saphenous veins in the umbilical region of the anterior abdominal wall. This is due here:

1) arteriovenous shunts

2) kava-caval anastomoses

3) lymph-venous anastomoses

4) porto-caval anastomoses

7.105. The upper and lower epigastric artery with accompanying veins of the same name located:

1) in the subcutaneous fat

2) in the rectus sheath in front of the muscle

3) into the vagina behind the rectus abdominis muscles

4) in the preperitoneal tissue

7.106. Portogepatografiya conducted through:

1) the umbilical vein

2) umbilical artery

3) hepatic vein

4) great saphenous vein

5) the inferior vena cava

ABDOMEN

8,007. Of these organs covered with peritoneum ip:

1) stomach

2) the duodenum

3) thin and ileum

4) the cecum

5) the appendix

6) ascending colon

7) transverse colon

8) descending colon

9) sigmoid colon

8,008. Of these organs covered with peritoneum mezoperitonealno:

1) stomach

2) Liver

3) the spleen

4) Pancreas

5) the duodenum

6) ascending colon

7) transverse colon

8) the descending colon

8,009. Of these organs covered with peritoneum ekstraperitenealno:

1) stomach

2) Liver

3) Pancreas

4) the spleen

5) the duodenum

6) the cecum

8,020. In predzheludochnoy bag are:

1) the gallbladder

2) the left lobe of the liver

3) Pancreas

4) the right lobe of the liver

8.021. Falciform ligament of the liver shares:

1) predpechenochnuyu slot and predzheludochnuyu bag

2) right and left subdiaphragmatic space

3) subhepatic slot and omental

8,022. The lower surface of the liver prilezhat all entities, except for:

1) Gastric

2) the horizontal part of the duodenum

3) hepatic curvature transverse colon

4) the greater omentum

5) of the upper pole of the right kidney

8,023. The peritoneum covers the liver from all sides except the surface:

1) the upper

2) lower

3) front

4) back

5) All answers are incorrect

8,024. The right side of the abdomen channel communicates with all entities, except for:

1) hepatic bags

2) subhepatic space

4) oral omental

5) the right mesenteric sinus

8,025. The left side channel communicates with the abdominal cavity:

1) hepatic bag

2) subhepatic space

3) the pelvic cavity

4) Oral omental

5) left mesenteric sinus

8,026. The structure consists of a small gland next three bundles:

1) diafragmalno- stomach

2) gastrointestinal splenic

3) gastrocolic

4) hepatoduodenal

5) hepatogastric

8,029. Knowing the components side of the triangle is necessary in the performance of Kahlo:

1) cholecystostomy

2) holetsistoeyunoanastomoza

3) cholecystoduodenostomy

4) cholecystectomy

5) hepatectomy

8,031. The back wall of the stomach prilezhat all entities, except for:

1) the left lobe of the liver

2) rear leaf parietal peritoneum

3) pancreas

4) Spleen

5) of the abdominal aorta

8,032. To the stomach in front prilezhat all entities, except for:

1) the left lobe of the liver

2) a transverse colon

3) the right lobe of the liver

4) the anterior abdominal wall

5) small intestine

8,034. In a patient with ulcer perforation of the rear wall of the stomach gastric contents were in the right iliac fossa at the cecum, which cause symptoms that mimic appendicitis. Point 4 Education constituting a serial route of gastric contents in this area:

1) podpechenochnayaschel

2) The right side channel

3) right mesenteric sinus

4) predzheludochnaya Bag

5) bag stuffing

6) gland hole

7) the gap in front of the transverse colon

8,035. Of the four peritoneal formations of the lower floor of the abdominal cavity freely communicates with the peritoneal bags upstairs:

1) left mesenteric sinus

2) the left side of the channel

3) the right mesenteric sinus

4) The right side channel

8,036. Messages left and right mesenteric sinus:

1) between the loops of the small intestine and the anterior abdominal wall

2) through the hole in the root mesentery

13) through the holes in the mesentery of the transverse colon

4) between the beginning of the root mesentery mesentery and transverse colon

5) are not reported

8,037. Of the four peritoneal formations of the lower floor of the abdominal cavity does not communicate with the pelvic peritoneal floor one:

1) left mesenteric sinus

2) the left side of the channel

3) the right mesenteric sinus

4) The right side channel

8.038. Most likely through the dissemination of peritonitis from the right mesenteric sinus is:

1) upper abdomen

2) the left mesenteric sinus

3) Left side channel

4) The right side channel

5) the pelvic peritoneal floor

8.042. Most likely through the dissemination of peritonitis from the left side of the channel is:

1) upper abdomen

2) the left mesenteric sinus

3) the right mesenteric sinus

4) The right side channel

5) the pelvic peritoneal floor

8,048. Stomach supplied with blood arteries radiating:

1) only from the celiac trunk

2) from the celiac trunk and the superior mesenteric artery

3) only on the superior mesenteric artery

8.049. Duodenal arteries supply blood to all except:

1) The right gastric artery

2) the right gastroepiploic artery

3) upper-duodenal pancreatic artery

4) lower pancreatic-duodenal artery

5) The right renal artery

8,056. When subtotal gastrectomy during mobilization for its greater curvature was crossed not only the gastro-colon, and gastro-splenic ligament. After surgery developed necrosis of gastric stump that was the result of ligation and intersection:

1) short gastric arteries

2) the left gastric artery

3) Left gastro-omental artery

4) splenic artery

8,060. To apply continuous intestinal suture is usually applied:

1) silk

2) nylon

3) catgut

4) metal clips

5) horsehair

8.061. Serous membrane fusion occurs:

1) after 12 hours

2) after 24 hours

3) after 36 hours

4) after 7 days

5) more than 7 days

8.062. The most severe arterial and venous plexus of the hollow organs of the abdominal cavity are located in:

1) serosa

2) muscular layer

3) the submucosa

4) mucosa

8.063. Tightness intestinal anastomosis suturing provides:

1) sero-muscular Case

2) mucous and submucosal Case

8,064. Joining serous surface when applied intestinal suture offered:

1) Black

2) Lambert

3) NI Pirogov

4) Schmid

5) ID Kirpatovsky

8,066. Double row seam used in surgery:

1) stomach

2) the duodenum

3) small intestine

4) colon

5) all of the above bodies

8,067. Three-row suture used in surgery:

1) stomach

2) the duodenum

3) small intestine

4) colon

5) all of the above bodies

8.068. Slnznsto fusion-submucosal case occurs:

1) after 1 day

2) 7-10 days

3) after 20 days

4) after 1 month

5) 1 month

8.069. Gastrostomy - is:

1) The introduction of the probe into the cavity of the stomach

2) the imposition of an artificial external fistula in the stomach

3) forming a gastrointestinal anastomotic

4) dissection of the stomach wall to retrieve a foreign body, followed by suturing wounds

5) removing the portion of the stomach

8,099. "The vicious circle" after gastroenteroanastomosis due to:

1) The narrow diameter of the anastomosis or expressed anastomositis

2) isoperistaltic suturing bowel to the stomach

3) formation of a "spur" on the resulting loop bowel anastomosis above 1

4) suturing the stomach leading department bowel anastomosis above

5) imposition of additional interintestinal anastomosis for Brown

8.100. "The vicious circle" after gastroenteroanastomosis due to:

1) wide diameter anastomosis

2) antiperistaltic suturing bowel to the stomach

3) stability of the anastomosis position both during the operation and thereafter

4) formation of a "spur" on the resulting loop bowel anastomosis above

5) suturing the stomach leading department bowel anastomosis above

8.116. The structure hepatoduodenal bundles include:

1) gate Vienna

2) the lower hollow Vienna

3) the common hepatic duct

4) the right gastric artery

5) hepatic en arte

8.117. In relation to the hepatic veins is right hepatic veins following statement:

1) out of the gate of the liver and empty into the portal vein

2) located on the rear surface of the liver and empty into the azygos vein

3) located on the rear surface of the liver and empty into the inferior vena cava

8,118. The bottom of the gallbladder is projected onto the anterior abdominal wall at the point:

1) the intersection of the outer edge of the right rectus abdominis with the costal arch

2) the intersection of the right midclavicular line costal arch

3) between the right and middle thirds of the horizontal line connecting the lower ends of ribs X

8.120. During the execution of holetsistektomnn cystic artery at the base of the triangle is determined Kahlo, the sides of which are the two anatomical structures:

1) the common bile duct

2) the common hepatic duct

3) right hepatic duct

4) the cystic duct

5) own hepatic artery

8,121. The common bile duct formed by the confluence of the common hepatic duct and cystic often:

1) near the gate of the liver

2) in the liver, but a bunch of dvenadtsatnperstnoy

3) behind the upper part of the duodenum

4) at the head of the pancreas

8.124. To memorize the relationship components hepatoduodenal cords used rule of thumb:

1) NEVA

2) Vanya

3) Two

4) the lady in the middle - the gentlemen on each side

5) NBA

8.125. To temporarily stop the bleeding from the liver can pinch fingers pechenochko-dvenadtsatnperstnuyu bunch:

1) 2-3 min

2) 5-10 min

3) 15-20 min

4) for 25-30 min

5) during compression is determined by the need for the complete cessation of bleeding

8,133. After removal of the gallbladder usually close his bed:

1) fascia plate

2) part of the muscles of the anterior abdominal wall

3) a part of the greater omentum

4) The remains of serous cover gallbladder

5) of the liver parenchyma using tightening seams

8.134. For suturing the wounds of the liver can be used:

1) single catgut sutures

2) wound closure plate fascia

3) muscle

4) free plastic gland

5) plastic gland on the leg

8.135. Seam Kuznetsova-Pensky used for wound closure:

1) Skin

2) Muscle

3) aponeurosis

4) colon

5) of the liver

8.147. To stop bleeding from parenchymal organs is advisable to use the seam:

1) Pensky-Kuznetsova

2) Schmid

3) Lambert

4) Alberta

5) VA Opel

8,162. Blood supply of the jejunum is performed by branches of the arteries:

1) the inferior mesenteric

2) The superior mesenteric

3) Splenic

4) common hepatic

5) left and right gastrointestinal salnikrvyh

8.163. Blood supply to the ileum at the expense of the branches of the arteries:

1) the inferior mesenteric

2) The superior mesenteric

3) Splenic

4) common hepatic

5) left and right gastroepiploic

8.167. Meckel's diverticulum - is:

1) cleft ductus venosus

2) cleft urachus

3) cleft umbilical vessels

4) the rest of the fetal ductus vitellointestinal

8,169. The blood supply of the stomach participate artery:

1) left gastric

2) the average colon

3) The right gastric

4) branch riolanovoy arc

5) right gastroepiploic

6) the left gastroepiploic

8.170. Single row sero-musculo-podsliznsty weld seam is called:

1) Alberta

2) Lambert

3) Pirogov-Bireh

4) Black

5) Schmid

8,171. Double row seam consisting of through-seam through membranes of the intestinal wall and sero-serous weld seam is called:

1) Alberta

2) Lambert

3) Pirogov-Bireh

4) Black

5) Schmid

8.173. Screw through the seam through the shell intestinal wall called the seam:

1) Alberta

2) Lambert

3) Pirogov-Bireh

4) Black

5) Schmid

8,178. When suturing point stab wounds rational use of the small intestine:

1) nodal sero-muscular sutures

2) joint Schmid

3) sero-muscular purse-string suture

4) joint Alberta

5) shovZheln

8,179. Wounds hollow tubular organs sutured in transverse direction:

1) because of the convenience

2) for a better adaptation layers

3) to prevent narrowing of the lumen

4) due to tradition

5) for the conservation of peristalsis

8,182. Resection of the small intestine most commonly used two kinds ekteroanastomozov:

1) "end to end"

2) "end to side"

3) "side in the end"

4) "side to side"

8,184. When resection of the small intestine of its mobilization phase includes:

1) dissection of the parietal peritoneum to create a piece of bowel motility

2) the intersection of the leading end of the colon removed

3) the intersection of discharge end of the intestine removed

4) separating the removable portion of the intestine on its mesentery pre-ligation of its vessels

5) the intersection of discharge and leads all colon removed

8.185. Technical deficiencies enteroenteroanastomosis "end to end" when compared with the fistula "side to side" can be:

1) the complexity of the formation of the rear flaps

2) narrowing of the anastomosis

3) the complexity of the formation of the front flaps

4) low strength anastomotic

5) low aseptic anastomotic

8,186. To distinguish the colon from the small can of:

1) the presence of packing processes

2) with respect to the peritoneum

3) the presence of blistering throughout the intestine

4) the presence of muscle strips

5) Color

8,194. Mobilization of the small intestine is called:

1) the intersection of the mesentery

2) removal of the intestine to the abdominal wall

3) suturing the intestine to the parietal peritoneum

4) removing the part of the small intestine

5) the intersection of the mesentery of the intestine removed to pre-ligation of its vessels

8,195. When resection of the small intestine is sutured "rars nuda» to:

1) prevention of bleeding from the mesenteric vessels

2) restoration of the continuity of the serous membrane of the intestine

3) prevention gap "joints-derzhalok"

4) Maintaining the lumen of the small intestine

5) preservation of the small intestine motility

8,202. Three-row intestinal suture can be applied to all parts of the gut other than:

1) skinny

2) iliac

3) the blind

4) the transverse colon

5) sigmoid

8,203. Three-row intestinal seam on the colon due to all causes, except for:

1) high massiveness microflora

2) the high virulence of the microflora

3) The fineness of the colon wall

4) The large diameter of the colon

5) the low mobility of the colon

8,206. When applying intestinal suture mechanical strength it creates:

1) mucosa

2) submucosa

3) muscle sheath

4) serosa

5) the mucous and serous membranes

8,221. Access by MakBurneyu Volkovich-called kosoperemennym because:

1) acute and obtuse interleaving methods of separation tissue

2) mismatch skin incision line with the line of separation of muscles

3) mismatch line skin incision with a line dissecting the peritoneum

4) consistent separation of muscle fibers with different directions blunt way

5) an oblique direction of the cut

2.225. Define the sequence of steps in the removal of the appendix appendectomy:

1) the imposition of purse-string suture on the wall of the cecum

2) the imposition of serous-muscular 2-stitch

3) ligation at the base of the appendix

4) cut off the appendix

5) ligation and the intersection of the mesentery of the appendix

6) immersing the stump appendix into the cecum and the tightening of purse-string suture

8,228. Purse string suture in the cecum is applied at a distance from the base of the appendix:

1) at the base

2) margin of 1-1.5 cm

3) retreat to 3-4 cm

4) retreated to 5-6 cm

5) The distance is determined by the nature of the pathological process in the appendix

8,229. Retrograde appendectomy have to perform:

1) with breech position process

2) the length of the ridge 10 cm

3) fixing process adhesions to the posterior abdominal wall

4) for a very short appendix

5) the choice of method depends on the willingness appendectomy surgeon

8,232. In imposing an artificial anus in inoperable rectal cancer is assumed:

1) removal of the loop of the sigmoid colon mesentery separated from the skin, followed by cutting off both knees (a double-barreled fistula)

2) elimination of the loop of the sigmoid colon with whole mesentery followed by cutting off the skin of both knees (a double-barreled fistula)

3) removal of the loop of the sigmoid colon with the United knees (with separating "spur") on the skin, followed by (24-48 hours) transection derived in the wound | guts

4) blind stitching anal segment of the rectum, removal of oral segment of the sigmoid colon to the skin

5) extirpation of the rectum with the anus suturing, removing the anal segment of the sigmoid colon to the skin, followed by cutting off both knees (a double-barreled fistula)

8,247. To create unnatural anus most often used:

1) the rectum

2) the sigmoid colon

3) the descending colon

4) the transverse colon

5) the cecum

8,249. To apply artificial anus Maidla used for access:

1) variable oblique access to 1-2 cm above the inguinal ligament and

parallel to it

2) access oblique above the inguinal ligament in the 3-4 cm and parallel to it

3) lower-median laparotomy

4) extended median laparotomy

5) the choice of access is determined by the projection of the sigmoid colon

8.250. In the course of the operation of formation of unnatural anus parietal peritoneum sutured to the skin:

1) to isolate the peritoneal cavity

2) to isolate the layer of tissue of the abdominal wall and prevent infection

3) to lock

4) washing the peritoneal cavity

5) to prevent the development of adhesive disease

8,252. In imposing unnatural anus serous covering of the sigmoid colon is connected to the parietal

peritoneum:

1) to prevent the development of fecal cellulitis

2) to prevent the development of adhesive disease

3) to prevent infection of the abdominal cavity

4) for fixing the sigmoid colon

5) All answers are correct

8,253. After performing elective surgery imposing unnatural anus lumen of the sigmoid colon can reveal:

1) after 12 hours

2) after 1 day

3) in 2-3 days

4) after 4-6 days

5) an autopsy performed at the request of the patient

8,254 colostomy can be applied to:

1) cecum

2) ascending colon

3) the transverse colon

4) the descending colon

5) the sigmoid colon

9.02. The retroperitoneal space between intra-abdominal and retroperitoneal fascia is located:

1) retroperitoneal kletchatochnyh layer

2) fiber okoloobodochnaya

3) perirenal tissue

9.03. Okoloobodochnaya tissue located between:

1) ascending or descending colon and pozadiobo-sedimentary fascia

2) retrocolic vperedipochechnoy and fascia

3) and intra-abdominal fascia retrocolic

9.04. Kidney tissue located around the kidney:

1) under the fibrous capsule of the kidney

2) between the fibrous capsule and facial

3) over the kidney capsule facies

9.10. Determine the order of the three capsules kidney parenchyma from it:

1) Fat

2) facies

3) fibrous

9.11. Buds are covered with peritoneum:

1) i.p.

2) mezoperitonealno

3) Extraperitoneal

9.12. With respect to the spine left kidney is located at the level of vertebrae:

1) Th11 - L1

2) Th11- L3

3) Th12- L2

4) Th12- L3

5) L1- L3

9.13. With respect to the spine right kidney is located at the level of vertebrae:

1) Th11 - L2

2) Th11- L3

3) Th12- L2

4) Th12- L3

5) L1- L3

9.14. Gates kidneys are projected at the level of vertebrae:

1) Th11- Th12

2) Th12- L1

3) L1- L2

4) L2- L3

9.15. 12th rib crosses behind the left kidney at the level of:

1) upper pole kidney '

2) between the upper and middle third

3) at the mid-

4) between the middle and lower third

9.16. 12th rib crosses behind the right kidney at the level of:

1) upper pole kidney

2) between the upper and middle third

3) at the mid-

4) between the middle and lower third

9.17. In front of the left kidney are four bodies:

1) Liver

2) stomach

3) Pancreas

4) the duodenum

5) loops of small bowel

6) ascending colon

7) the splenic flexure of the colon

9.18. In front of the right kidney are three bodies:

1) Liver

2) stomach

3) Pancreas

4) the duodenum

5) loops of small bowel

6) ascending colon

9.19. Forward-outer edge of the left kidney is covered by two bodies:

1) stomach

2) spleen

3) pancreas

4) loops of small intestine

5) descending colon

9.20. Elements renal pedicle arranged front to back in sequence:

1) renal artery, renal Vienna, pelvis

2) Vienna kidney, renal artery, pelvis

3) pelvis, kidney Vienna, renal artery

4) pelvis, renal artery, renal Vienna

9.23. The ureter on its length is:

1) one necking

2) two restriction

3) Three narrowing

4) Four narrowing

9.24. Narrowing of the ureter are at:

1) transition pelvis into the ureter

2) the lower pole of the kidney

3) the intersection with ovarian (testicular) artery

4) the middle of the abdominal part of the ureter

5) boundary line of small pelvis

6) over the site of perforation of the ureter bladder wall

9.25. At the level of the border line of the left ureter crosses the pelvic arteries:

1) common iliac

2) the internal iliac

3) the external iliac

9.26. At the level of the boundary line of the pelvis right ureter crosses the artery:

1) common iliac

2) the internal iliac

3) the external iliac

9.27. Site of injection needle perirenal blockade is:

1) the middle of the 12th rib on the bottom edge

2) the point of intersection posterior axillary line and the 12th rib

3) the vertex of the angle between the 12th rib and the outer edge of the erector spinae muscles

9.28. When perirenal novocaine blockade of the solution is injected into:

1) retroperitoneal kletchatochnyh layer

2) fat kidney capsule

3) hilar region

9.29. Specify the sequence of the layers, which the surgeon cuts through when accessing the kidney by Bergmann-Israel:

1) intraperitoneal fascia

2) a deep piece of lumbar dorsal fascia and the transversus abdominis

3) skin with subcutaneous fat and superficial fascia

4) serratus posterior inferior muscle and abdominal internal oblique muscle

5) surface sheet of the lumbar-dorsal fascia

6) latissimus dorsi and external oblique muscle of the abdomen

9.30. When dressing nephrectomy and renal pedicle intersection of elements in the sequence:

1) renal artery, renal Vienna, ureter

2) Vienna kidney, renal artery, the ureter

3) the ureter, renal artery, renal Vienna

9.32. Lumbar triangle (triangle Pty) limit:

1) external oblique muscle of the abdomen

2) abdominal internal oblique muscle

3) transverse abdominis

4) back extensor

5) 12th rib

6) latissimus dorsi

7) the iliac crest

9.33. The sides of the rhombus-Lesgafta Grunfeld form:

1) external oblique muscle of the abdomen

2) abdominal internal oblique muscle

3) transverse abdominis

4) back extensor

5) 12th rib

6) latissimus dorsi

7) rear lower serratus

9.34. The practical significance of the triangle Petit is that it is:

1) place the output hernias

2) place the output of the retroperitoneal abscesses

3) a place to perform accesses to the organs of the retroperitoneal space

4) place to perform puncture and blockades

5) a sore point for the differential diagnosis of diseases of the stomach

9.35. Access to the kidney by Bergman, Israel is characterized by the fact that:

1) is extraperitoneal access

2) it transperitoneal access

3) requires a mandatory opening of the pleural cavity

4) must be accompanied by resection of the 12th rib

5) is variable access

9.37. Basic cellular spaces pelvic cavity are within the pelvic floor:

1) peritoneal

2) subperitoneal

3) a subcutaneous

9.40. Urogenital diaphragm is formed by two muscles:

1) deep transverse perineal muscles

2) PC muscle

3) muscle lifting the anus

4) sciatic-cavernous muscle

5) urethral sphincter

9.41. The pelvic diaphragm is formed by two muscles:

1) deep transverse perineal muscles

2) PC muscle

3) muscle lifting the anus

4) sciatic-cavernous muscle

5) urethral sphincter

9.42. The sciatic nerve leaves the pelvic cavity in the gluteal region through the opening:

1) obturator

2) nadgrushevidnoe

3) Subpiriforme

4) small sciatic

9.59. Digital rectal examination in men conducted to determine the condition in the first place:

1) Bladder

2) ureteral

3) prostate

4) anterior sacral lymph nodes

9.67. In the pelvic floor subperitoneal isolated cellular spaces:

1) predpuzyrnoe

2) retrovesical

3) pozadipryamokishechnoe

4) parietal cellular spaces

5) parametrium cellular spaces

**FINAL TEST**

**"Standarts of answers"**

1.28-3

1.30-3,4,5

1.31-2

1.33-2

1.36-3,4

1.37-2

1.40-5,1,4,3,2

1.41-6

1.43-4

1.44-2

1.45-3

1.48-4

1.50-5

1.51-1,2,3

1.52-3,4,5

1.54-1,3,4,5

1.55-2

1.57-1,3

1.59-3

1.60-1

1.64-2

1.66-3

1.67-2

1.68-1

1.69-2

2.001.-1

2.002. - 5

2.003.-2

2.004. - 4

2.006.-2

2.007.-3

2.019.-4

2.020.-4

2.021.-4

2.025.-3,5

2.030.-1,4,5,6

2.031.-3,7

2.032.-2,8

2.037.-1

2.038.-32.045.-1,4

2.046.-1,3,5

2.051.-4

2.052. -1

2.054.-2

2.056.-2

2.060.-2,4

2.063. - 2

2.064.-3

2.065.-3

2.066.-4

2.067.-4

2.068. -1

2.069.-2

2.073. -1

2.074.-1б, д, е, ж,з2и,3а,в4г

2.075. -1а, в; 2 б, г

2.078. -1

2.079. - 3

2.080.-1

2.081.-2

2.082.-1,3

2.083.-5

2.085.-4

2.088.-3

2.090. - 3

2.091.-5

2.092.-2

2.093.-3

2.095.-2

2.096. - 3

2.097. - 2

2.098. - 3

2.100.-1

2.101.-1

2.102.-2

2.104.-3

2.105.-3

2.106.-1

2.107.-3

2.108.-1

2.109.-2

2.110.-3

2.111.-5

2.115.-4

2.116.-1

2.117.-3

2.121.-1,4

2.122.-2,3,5,6,7,8

2.123.-2,7

2.124.-3

2.131.-4

2.138.-2

2.139.-5

2.140.-1,3,4

2.141.-1,2,4,5,7

2.142.-4

2.145.-3,4,6

2.146—1,3,5

2.147.-3

2.148.-2

2.150.-1г;2б;За;4в

2.151.-16; 2в; За

2.152.-3

2.154.-4

2.155.-4

2.156.-4

2.157.-16; 2а; Зв

2.159.-1,2,6

2.162.-1,2,4

2.163.-3

2.164.-3

2.165.-3

2.166.-3

2.167.-4

2.168.-2

2.169.-1

2.171.-5

2.173.-4

2.175.-1

2.177.-2

2.179.-4,5,6,7

2.180.-1,4

2.181.-3

2.182.-1,4,6

2.183.-4

2.184.-2,4

2.192.-4

2.194.-2

2.195.-4

2.196.-2

2.203. -1

2.206. -1

2.207.-2

2.208. -1

2.212.-1,2,4

2.213.-3

4.58.-2

4.59.-1,3

4.60.-1

4.61.-1,5

5.16.-1

5.17.-1

5.18.-3б

5.19.-3

5.24.-1

5.25.-2

5.26.-1б, в, д; 2а, г, е

5.36.-2

5.58.-3

6.01.-1

6.02.- 1а, в, г; 26

6.03. - 1а, б, в, д, е; 2г, ж, з

6.04.- 1 в; 2а, б, г

6.62. - 1

6.63,-1,2,5

6.64. - 1

6.65.-2

6.66.-2

6.67.-1,2,3,7

6.68.-16

7.007.-4,6,3,9,1,2,7,8,5

7.010.-2

7.011.-4

7.012.-1,3,4,7

7.013.-3

7.014.-2

7.020.-1

7.021.-2

7.022.-1,3,5

7.023.-2

7.024.-4

7.039.-2,3,4

7.041.-2

7.042.-4

7.044.-1,4,5

7.045. - 3

7.046.-3

7.047.-2

7.050.-2

7.051.-4

7.053.-1

7.054.-2

7.056. -1

7.058.-4

7.059.-2

7.060.-3

7.062.-2

7.063.-1

7.064.-4

7.065. - 3

7.066.-3

7.067. -1

7.068.-3

7.069.-2

7.070.-2

7.071.-2

7.072.-2

7.073.-3

7.087.-1,3,4

7.094.-4

7.095.-4

7.096.-2

7.097.-3

7.098.-2

7.099.-1

7.100.-2

7.101.-4

7.102.-1,2,4

7.103.-3

7.104.-4

7.105.-3

7.106.-1

8.007.-1,3,4,5,7,9

8.008.-2,6,8

8.009.-3,5

8.020.-2,5

8.021.-2

8.022.-4

8.023.-4

8.024.-5

8.025.-3

8.026.-1,4,5

8.029.-4

8.031.-1,4

8.032.-2,5

8.034.-5,6,1,2

8.035.-4

8.036.-1,4

8.037.-3

8.038.-2

8.042.-5

8.048.-1

8.049.-5

8.056. -1

8.060.-3

8.061.-4

8.062.-3

8.063.-1

8.064.-2

8.066.-1,2,3

8.067.-4

8.068.-2

8.069.-2

8.099.-1

8.100.-2,

8.116.-1,3,5

8.117.-3

8.118.-1

8.120.-2,4

8.121.-2

8.124.-3

8.125.-3

8.133.-4

8.134.-1,4,5

8.135.-5

8.147.-1,5

8.162.-2

8.163-2

8.167.-4

8.169.-1,3,5,6

8.170.-3

8.171.-1

8.173.-5

8.178.-3

8.179.-3

8.182.-1,4

8.184.-4

8.185.-2

8.186.-1,3,4,5

8.194.-5

8.195.-2

8.202.-3,4,5

8.203.-4,5

8.206.-2

8.221.-2

8.222.-5

8.225.-5,3,1,4,6,2

8.228.-2

8.229.-3

8.232.-3

8.247.-2

8.249.-2

8.250.-2

8.252.-3,4

8.253.-2

8.254.-1,3,5

9.02.-1

9.03.-2

9.04. - 2

9.10.-3,1,2

9.11.-3

9.12.-1

9.13.-3

9.14.-2

9.15.-3

9.16.-2

9.17.-2.3,5,7

9.18.-1.4,6

9.19.-2,5

9.20.-2

9.23.-3

9.24.-1,5,6

9.25.-1

9.26. - 3

9.27.-3

9.28. - 2

9.29.-3,5,6,4,2,1

9.30.-3

9.32.-1,6,7

9.33.-2,4,5,7

9.34.-1,2

9.35.-1

9.37.-2

9.40.-1,5

9.41.-2,3

9.42.-3

9.45.-5

9.46. - 1

9.59.-3

9.67.-1,2,3,4,5

3. Evaluation tools for the final certification of students:

Questions:

⦁ NIPirogov: the value of his work in the development of topographical anatomy and operative surgery.

⦁ V.N.Shevkunenko; the doctrine of extreme types of individual anatomical variability and its practical significance.

⦁ topography of the axilla: its walls and contents.

⦁ topography of the shoulder.

⦁ Topography elbow area.

⦁ Topography forearm.

⦁ topography of the palmar surface of the brush. "Forbidden Zone" Kanavelya and its practical significance.

⦁ Topography fingers. Osteo-fibrous ducts and synovial sheath of the flexor tendons of the fingers; the spread of pus.

⦁ Topography fascial sheaths of the upper limb, and their significance in surgical practice. Futlyarnoy novocaine blockade, readings, performance technique.

⦁ cross-cut shoulder (show the anatomical elements in the formulation).

⦁ Topography gluteal region.

⦁ Topography podpupartova space gaps and their contents.

⦁ topography of the femoral triangle and femoropopliteal channel.

⦁ Topography rear hip area.

⦁ Topography knee. Volvulus of the synovial membrane, their role in the formation of septic arthritis streaks.

⦁ topography of the popliteal fossa.

⦁ Topography front shin area.

Topography ⦁ back the shin area.

⦁ topography of the area of ​​the medial malleolus.

⦁ Topography fascial sheaths of the lower limb. Futlyarnoy novocaine blockade in the lower limbs, readings, performance technique

⦁ cross-cut hip (show the anatomical elements in the formulation).

⦁ Layered structure of the frontal-parietal-occipital region. Features of blood supply and innervation of the head.

⦁ Topography membranes of the brain and intershell spaces. Localization of intracranial hematomas.

⦁ Brain Topography (Scheme Krenleyna - Bryussovoy).

⦁ Topography mastoid area. Burr Shipo triangle.

⦁ topography of the dura mater, venous sinuses, their relationship with surface veins and the value in the clinic.

⦁ Topography side the face, border, stratified structure.

⦁ projection of facial blood vessels, facial nerve branches and exit points of the branches of the trigeminal nerve bony canals. The cuts on his face.

⦁ Topography of the neck: the borders, external benchmarks, the division into regions and triangles.

⦁ Topography fascia of the neck V.N.Shevkunenko, cellular spaces of the neck and the spread of abscesses.

⦁ Topography submandibular triangle, triangle Pirogov. Ligation of the lingual artery.

⦁ Topography sleepy triangle.

⦁ Topography sternoclavicular-mastoid area. Stair-vertebral triangle.

⦁ Topography lateral triangle of the neck. Predlestnichny and interscalene intervals.

⦁ topography of the larynx and trachea.

⦁ topography of the thyroid and parathyroid glands.

⦁ topography of the pharynx and cervical esophagus.

⦁ Topography breast.

⦁ Layered structure of the chest wall. Topography intercostal spaces.

⦁ Topography diaphragm.

⦁ Topography pleura and pleural sinuses.

⦁ topography of the lungs; division into shares and segments. The topography of the roots of the lungs and the pulmonary ligament.

⦁ Topography of the pericardium.

⦁ Topography heart.

⦁ Topography vessels anterior mediastinum (superior vena cava, aorta, pulmonary artery).

⦁ Topography phrenic nerves.

⦁ Topography vagus nerve, recurrent nerve.

⦁ topography of the esophagus.

⦁ Topography of thoracic duct.

⦁ Frontal section of the chest (show the anatomical elements in the formulation).

⦁ topography of the anterior-lateral abdominal wall; especially innervation and practical significance in surgery.

⦁ topography of the inguinal canal and its contents; groin and inguinal triangle gap.

⦁ Topography peritoneum in the upper floor of the abdominal cavity, the ratio of the organs, the formation of tangles, handbags and practical significance.

⦁ Topography peritoneum in the lower floor of the abdominal cavity, localization bryzheek, greater omentum, sinuses, channels, pockets, and their practical value in the surgery.

⦁ Topography stomach.

⦁ topography of the liver, gall bladder and liver ligament.

⦁ Topography spleen.

⦁ Topography pancreas.

⦁ Topography of duodenum and small intestine.

⦁ topography of the colon; critical areas in its blood supply.

⦁ Topography lumbar area, fascia and retroperitoneal fat.

⦁ topography of the spinal canal, the spinal cord and its membranes.

⦁ Topography of kidneys; especially blood supply.

⦁ Topography ureters.

⦁ Topography of the abdominal aorta and its branches.

⦁ Topography portal vein and its sources. Porto-caval and cava-caval anastomoses.

⦁ topography of the pelvic: borders, building walls and the pelvic floor. The division of the pelvis on the floor.

⦁ topography of the pelvic peritoneal floor: the course of the peritoneum, the formation of tangles, pits and pockets.

⦁ Topography bladder.

⦁ Topography uterus.

⦁ Topography rectum.

⦁ obliquely cross cut the pelvic (show the anatomical elements in the formulation).

⦁ dissection technique and connecting tissue: skin, fat, fascia, muscles, serous membranes.

⦁ Indications and machinery imposition of single and continuous seams.

⦁ venipuncture and venesection: indications, technique of, complications. Reverse transfusion.

⦁ puncture and catheterization of the subclavian vein.

Intra-arterial injection of blood ⦁: indications, technique execution.

⦁ final stop bleeding: ligation of vessels in the wound, and over; surgical approaches, surgical technique, complications.

⦁ axillary artery ligation: quick access, equipment operation, collateral blood flow path.

⦁ brachial artery ligation: quick access, performance technique, the way of collateral blood flow.

⦁ dressing radial and ulnar arteries: the projection of the skin, rapid access, machinery operation.

⦁ ligation of the femoral artery: the projection of the skin, rapid access, equipment operation, collateral blood flow path.

⦁ dressing anterior tibial artery: the projection of the skin, rapid access, technology implementation.

⦁ popliteal artery ligation: the projection of the skin, surgical approaches, equipment performance, the way of collateral blood flow.

⦁ hand vascular suture technique. The concept of a mechanical seam vessels.

⦁ topographic anatomical study sections at the felon.

⦁ topographic anatomical study sections at phlegmons brush.

⦁ Causes of abscesses space Pirogov and cuts to his autopsy.

⦁ arthrocentesis.

⦁ arthrotomy of the shoulder joint.

⦁ arthrotomy of the knee joint.

⦁ operations on joints: puncture, arthrotomy, resection; indications and types of operations. The concept of arthrodesis and arthroplasty.

⦁ suture the tendon and its species. Features seam is damaged tendons throughout the synovial sheaths.

⦁ seam nerve, its types. Features real-time access to the nerve trunks.

⦁ Exposure of the radial nerve in the shoulder.

⦁ Operative treatment of fractures.

⦁ method of skeletal traction for fractures of the hip: indications, technique overlay complications.

⦁ concept of extra- and intramedullary nailing.

⦁ Fabrics for amputations.

⦁ Circular ways amputations. Trehmomentnaya Pirogov amputation.

⦁ Patchwork ways amputations. Osteoplastic amputation of the lower leg of Pirogov, hips Gritti - Shimanovsky and its variants.

⦁ disarticulation of the phalanges of the fingers and wrist.

⦁ Primary surgical treatment of wounds of the extremities; purpose of the operation, the processing techniques.

⦁ Plastic Skin local fabrics.

⦁ Free polnosloynym plastic skin graft.

⦁ Plastic skin flap pedicled (Italian method).

⦁ Skin grafting for migratory flap Filatov.

⦁ Decompressive craniotomy.

⦁ osteoplastic craniotomy.

⦁ ligation of common carotid artery.

⦁ Incisions for opening abscesses of the neck.

⦁ Neck vago-sympathetic blockade on Vishnevsky.

⦁ drainage thoracic duct.

⦁ tracheostomy. Konikotomiya. Indications, surgical technique, complications.

⦁ Basic Principles subtotal, subfascial resection of the thyroid gland by Nikolaev.

⦁ topographic anatomical study of mastitis and cuts retromammary cellulitis.

⦁ operations for breast cancer.

⦁ puncture the pleural cavity, readings, performance technique.

⦁ Thoracentesis and pleural cavity drainage valve at the pneumothorax.

⦁ Basic Principles of surgical treatment of chronic empyema; pleurectomy and decortication of the lung, subperiosteal resection of ribs and drainage of pleural cavity.

⦁ operations in penetrating wounds of the chest (lung wound closure and open pneumothorax).

⦁ pericardial puncture: indications, technique execution.

⦁ puncture of the left ventricle: indications, technique execution.

⦁ Wound Closure heart.

⦁ Surgical anatomy and methods of surgical treatment of inguinal hernias by Bassini, Girard, Spasokukotsky, Kimbarovskomu, Martynov.

⦁ Surgical anatomy and methods of surgical treatment of femoral hernias Bassini and Rudge. "Crown of Death" in the treatment of strangulated femoral hernia.

Methods ⦁ surgery umbilical hernias (Lexer, Mayo Sapezhko) and hernia linea alba (Mayo Sapezhko).

⦁ Features hernia repair in strangulated hernias and sliding.

⦁ puncture the abdominal cavity.

⦁ Intestinal seam, its types and performance technique.

⦁ Principles of medical care in penetrating wounds of the abdomen. Technique suturing wounds of hollow organs and damage of parenchymal organs of the abdomen; seal liver.

⦁ suturing technique perforated stomach ulcer.

⦁ gastrotomy: indications, surgical technique.

⦁ Gastrostomy for Witzel, Toproveru and Kader.

⦁ gastroenteroanastomosis: indications, technique of, possible complications.

⦁ principles gastrectomy Billroth 1 and Billroth-2 modification Hofmeister - Finsterer.

⦁ concept of stem selective and selective proximal vagotomy.

⦁ Basic principles of operation of cholecystectomy.

⦁ loop resection of the small intestine; types of intestinal anastomosis.

⦁ Appendectomy.

⦁ Operation overlay fecal fistula (colostomy).

⦁ Operation imposing temporary fecal fistula on Maidla.

⦁ perirenal novocaine blockade on Vishnevsky, readings, performance technique.

⦁ lumbar puncture: indications, technique execution.

⦁ resection and removal of the kidney.

⦁ puncture and catheterization of the bladder.

⦁ cystotomy and cystostomy: indications, surgical technique.

⦁ topographic anatomical study of diagnostic puncture rear Douglas space.

**Case studies:**

Topography of the upper limb (VC)

TASK number 1.

In the casualty department entered the victim with a broken collarbone and a large hematoma in the area of ​​the fracture. Specify the direction of displacement of fragments of the clavicle. What a vessel damaged by this disease and what is its flat line?

       OBJECTIVE number 2.

The patient entered the clinic with complaints of their own inability to take a hand to a horizontal position. In anamnesis - fracture of the humerus. Specify the possible causes of this condition, let topographic anatomical study of this pathology.

TASK number 3.

 In the emergency room with a fractured delivered to the affected neck of the humerus. As will be placed central and peripheral bone fragments resulting from the reduction of muscles attach to it? What nerve may infringe between the fragments?

TASK number 4.

 In purulent surgical department of the clinic he was taken ill with cellulitis axilla (hidradenitis sup- complication). Specify the possible pathways of burrowing pus. What cuts to the autopsy phlegmon armpit.

TASK number 5.

 The surgical department delivered the victim with a through injury shoulder girdle. The wound is from front to back in the breast triangle. In the area of ​​the wound - an extensive hematoma. Upper limb weighs "as a whip." What topographic anatomical structures damaged?

        TASK number 6.

The health center delivered militiaman people homeless in a state of moderate intoxication, who was sleeping in the station garden; the outside air temperature is below 0 °. An objective examination of the delivered face: the fingers of his left hand sharply pale, no movement of the fingers, the sensitivity is not defined. After a few minutes the skin on the fingers become cyanotic, swollen and painful, with a touch of marble in the joints of the fingers appeared the movement, but not in full.

1.Sformuliruyte and justify presumptive diagnosis.

2. What additional symptoms for diagnosis and methods of their detection.

3. Tell us about the amount of pre-hospital care and referral hospital.

4. Make a plan for diagnostic and therapeutic measures in the hospital.

TASK number 7.

The patient thrombosis of the axillary artery beyond the point of origin of her subscapularis artery. Specify the collateral vessels, which in this situation should be the blood supply of the upper limb.

   TASK number 8.

 The surgical department entered the victim with a knife wound to the underarm area. Palpable determined extensive hematoma. What do you know quick access to the axillary artery? Specify the nerves around the artery located in the triangle brisket.

 TASK number 9.

 The patient thrombosis of the brachial artery at the level of the middle third of the shoulder. Specify collaterals, which will be the blood supply of the upper limb.

            TASK number 10.

 During the operation, the patient's shoulder for a long time relied on the edge of the operating table. Postoperatively, the patient developed symptoms of dysfunction of the extensor digitorum. Enter the reason for this complication.

           TASK number 11.

 In the casualty department received two patients with a diagnosis of "shoulder fracture in the middle third of the right." The condition of one patient restless. Complaints of severe pain in the fracture, broken function of the extensor muscles of the hand and fingers. The second patient is in a certain position, calm. Give topographic anatomical study of the clinical picture of these two patients. What neurovascular shoulder their projection line.

          TASK number 12.

 The surgical department enrolled patients with cellulitis front fascial and muscular shoulder bed. What surgical approaches for opening cellulitis shoulder said localization, muscle-fascial bed, the neurovascular bundle shoulder.

            TASK number 13.

 The surgical department enrolled patients with extensive damage to the elbow, shoulder. It is recommended to perform a double flap amputation in the upper third of the shoulder. What are the main stages of the operation, the rules of cutting out a skin graft. What are the blood vessels and nerves to be processed at this operation?

            TASK number 14.

 A neurologist patient appealed with complaints of violation of the bending of the terminal phalanges IV and V fingers, abduction and bringing fingers. From anamnesis: the patient was injured the elbow. Select a possible cause dysfunction of the fingers and let topographic anatomical study of this disorder.

            TASK number 15.

For intravenous administration of calcium chloride through the median cubital vein was dissolved in fiber cubital fossa, which resulted in a necrosis of tissue with the subsequent formation phlegmon antecubital fossa. Specify the spread of burrowing pus from the cubital fossa.

 TASK number 16.

 As a result of the elbow injury occurred bleeding into the joint cavity, followed by suppuration. Select puncture site and cuts the elbow joint to drain.

            TASK number 17.

 The vascular compartment enrolled patients with thrombosis of the brachial artery at the cubital fossa. Specify on what collaterals will be blood supply to the hand?

 TASK number 18.

 In the emergency station entered the victim with deep incised wound (glass) in the middle third of the forearm. The wound is located transversely on the front surface of the forearm. The wound is accompanied by heavy bleeding. Specify the fabric, which can be damaged and a possible source of bleeding.

            TASK number 19.

 The surgical department enrolled patients with cellulitis of the front bed of the forearm. What fascial-muscular forearm bed and a projection of the neurovascular bundles. Specify surgical approaches for the opening of the front bed forearm cellulitis.

            TASK number 20.

The victim in a road accident is detected fracture of the radius, on which he was imposed a plaster cast. Three weeks after the removal of the cast trauma found: a) violation of the extensors of the hand and fingers (fingers bent at the level of basic phalanges); b) the sensitivity of the skin back of the forearm is stored. Specify what appeared to compression of nerve structures and callus formation which nerve remained intact.

           TASK number 21.

When operations under endotracheal anesthesia, the patient's right shoulder for a long time relied on the edge of the operating table. Postoperatively, he noted the restriction extension thumb and index fingers. Explain the reason for this complication.

PROBLEM №22

The victim Jean, 41, a fracture of the diaphysis of the humerus at the level of the middle third. Explain, for a complication would indicate the lack of skin sensitivity and motor function in the area of ​​the radial nervakosti. Indicate which research is needed to clarify the conduct of treatment.

TASK number 23.

In a patient with deep phlegmon cellular spaces of the forearm (the space Pirogov-Parona) formed a pocket of pus in the back of the forearm. Specify: a) anatomical pathways burrowing pus; b) how and in what intermuscular cellular tissue is necessary to hold the slit drainage for drainage of pus?

 TASK number 24.

 As a result, corn abscess pus second interdigital spaces spread in commissural opening hand. Name the muscle-fascial bed and cellular spaces palm. Specify the possible pathways of pus and the best cuts on his hand.

TASK number 25.

The surgical department enrolled patients with cellulitis median fascial bed palm. The autopsy phlegmon appeared arterial bleeding. Name the common classification of purulent processes palm. What vessel was damaged?

TASK number 26.

The patient made an autopsy tenosynovitis of the thumb and radial tendobursita. In the postoperative period it was found to lack the opposition function of the thumb. Specify what mistakes have been made during the operation that caused this complication? Describe the place that is called the "exclusion zone brush."

TASK number 27.

In purulent Department delivered a patient with a diagnosis: "U-shaped abscess palm." What bursa palm of their contents. Under what form the structure of finger flexor tendon sheath may cause this disease? What you need to make incisions for drainage?

          TASK number 28.

The patient was operated on the felon terminal phalanx II thumb. During the operation, were not sufficiently carefully dissected connective tissue bands between the skin and the periosteum. Call classification panaritiums. What complications may arise in this case? Specify methods of anesthesia and incisions in the felon.

          TASK number 29.

 In the emergency station enrolled patients with deep incised wound of the anterior surface of the wrist. When you set revision wounds full damage of anatomical structures of carpal tunnel. The innervation of some muscle will be broken. Specify the basic principles of nerve suture.

 TASK number 30.

 The surgical department enrolled patients with cellulitis of the median bed podsuhozhilnoy palm. What pathways burrowing pus in this pathology. What are the blood vessels and nerves are located in this space?

           TASK number 31.

 During surgery for intradermal felon nail phalanx of the thumb after the removal of necrotic tissue fistula was found in subcutaneous fat from which the pressure-sensitive pus. What kind of pathological process you might think, and what you need to perform additional cuts?

TASK number 32.

 At the hospital the patient with a dislocation of the humeral head. The doctor on duty did not call the surgeon. I held anesthesia. The next day the surgeon has set a dislocation, but nevertheless remained impaired limb function. Which anatomical structures can be damaged by dislocation of the shoulder joint? What is the doctor's mistake?

TASK number 33.

 Regarding bleeding surgeon bandaged forearm crush "for" axillary artery. In the postoperative period there were signs of acute arterial obstruction of the axillary artery. What is the reason? How to prevent the development of such complications? Actions surgeon.

TASK number 34.

Delivered to a patient with a bleeding wound of the back surface of the deltoid region. Shoulder abduction difficult. What neurovascular Education damaged? Tactics of the surgeon.

TASK number 35.

I turned on the patient's shoulder fracture fused upper third of the complaints of difficulty straightening the fingers and hand. What causes symptoms, if within 1.5 months after the casting of such complaints is not it?

TASK number 36.

 In patients with purulent inflammation of one finger appeared swelling and edema of the lower third of the forearm. Where to find pus? Your treatment strategy.

TASK number 37.

 In the palm, near the wrist joint gash. The bleeding could not be stopped. Damage to a vessel you suspect? What you need to tie up the vessel in the lower third of the forearm?

TASK number 38.

 In the palm closer to the fingers there is a wound in which to stop the bleeding failed. What you need to tie up the vessel in the lower third of the forearm?

TASK number 39.

 The patient fractured the radius and ulna. What nerve may be damaged or fracture callus involved in the fusion of bone fragments at?

TASK number 40.

 The patient had a gash on his hand. Bleeding was no more. For 1 - 3 days the patient had severe pain in his hands, smack in the forearm and shoulder. At the same time inflammation of the skin and subcutaneous tissue is only noticeable around the wound. How to explain a lot of pain? In a layer of infiltration? Can we expect the appearance of swelling back of his hand?

TASK number 41.

A patient diagnosed with tendon felon 1 finger. After a few days the process spread to the elevation of the thumb and forearm, then on V finger. What do you call this symptom and how it is explained?

TASK number 42.

 In the surgery clinic patient appealed with a stab wound infected in the middle third of the elevation muscles of the thumb of the right hand. The patient has a fever up to 38,5 °, redness and swelling of the sharp brush out of the wound, a small quantity of thick pus. Diagnosis? What should be treated?

TASK number 43.

 Patient M. 45 years as a result of any sharp festering blisters swelling of the spread of edema on the back of the hand, raising the temperature to 40 °, increased pain. Diagnosis? Treatment?

TASK number 44.

 In a study of patients with purulent felon V pin the doctor found a sharp finger tissue swelling, fever, increase in regional lymph nodes and sore. In the passive finger extension the patient noted a sharp increase in pain. What form felon patient? Its complications?

TASK number 45.

When purulent inflammation of the elbow joint protrusion occurs symmetrically on both sides of the olecranon. However, cutting is performed only on the outside. What is the reason?

TASK number 46.

 Extra-articular sparing resection of the knee joint in the root PG used in children over gonarthrocace. What justified this technique?

TASK number 47.

In the emergency station patient appealed 17 years: at the rink he fell to the allotted hand. Diagnosis: "fracture of the clavicle." Explain why when examining the patient is undesirable pathological definition of mobility and crepitations?

TASK number 48.

The victim M, 15 years old, oblique fracture of the clavicle, the line which passes through the middle of the bone. Explain what direction shift the central and peripheral fragments. What muscles are responsible for their displacement?

TASK number 49.

 The victim M., 15 years old, oblique fracture of the clavicle, the line which passes through the middle of the bone. What are the components of the neurovascular bundle may be damaged when the lateral displacement of the fragment of the clavicle

TASK number 50.

Patient M, 48 years old, planned surgery on the axillary artery. Describe three methods of determining the projection line of the axillary artery.

TASK number 51.

The surgeon performs one stage surgery for breast cancer - excised tissue and lymph nodes in the underarm area. Specify the group of deep lymphatic vessels in the area and their location.

TASK number 52.

The surgeon performs a quick access to the axillary artery in the thoracic triangle. Specify the components of the neurovascular bundle adjacent to the axillary artery, should be shifted to the medial and lateral sides

TASK number 53.

Patient S., 21 years old, while the primary surgical treatment of gunshot wound was bandaged axilla axillary artery in the thoracic

the triangle above the subscapularis artery. Explain possible ways to restore the blood supply of the upper limb.

TASK number 54.

In the department of purulent surgery enrolled patients with 62 years. Diagnosis: "Phlegmon underarm area." Specify the areas in which the propagation of burrowing pus.

TASK number 55.

 According to the literature G. Shaposhnikov, 1997 front dislocations account for 75% of all shoulder dislocations. Specify the particular surgical anatomy of the shoulder joint, explaining the frequency of anterior dislocation.

TASK number 56.

In the emergency station appealed patient I., 48 years old, over the shoulder dislocation. Because history shows that four months ago, he had a fracture of surgical neck of the humerus. Explain causal link fracture of surgical neck of the humerus and shoulder dislocation.

TASK number 57.

The patient M., 71, a fracture of surgical neck of the humerus, complicated subdeltoid hematoma. Specify the origins of the hematoma.

TASK number 58.

The surgeon makes counteropening from the rear division of the shoulder joint. Explain how to determine the "exclusion zone" - the projection of the axillary nerve exit at the rear surface of the humerus.

Topography of the lower limb (NC)

TASK number 1

 After repeated intramuscular injections of the patient originated abscess gluteal region. What features its own fascia gluteal region and the nature of suppurative process in this area. What are gluteal muscles, their innervation and blood supply.

OBJECTIVE number 2.

 The surgical department enrolled patients with deep phlegmon cellular spaces gluteal region. Between what layers of muscle abscess is located and what the spread of pus. What surgical approaches for opening these abscesses.

      TASK number 3.

 The surgical department enrolled patients diagnosed with "Phlegmon front fascial and muscular thighs bed." Specify the classification of deep abscesses thigh, the spread of pus from the front thigh fascial bed. What surgical approaches for the opening of the cellulitis.

TASK number 4.

The surgical department entered the victim. Wound channel extends from front to back between the middle and lower third of the thigh. Bleeding profusely. Along with red blood stands dark color blood. Specify which large vessels can be damaged, in which anatomical structures they are than it is formed and anatomical formation of the hip which communicated with this anatomical education.

TASK number 5.

 The military hospital delivered the wounded to the torn-toasted wound inguinal-femoral area and massive blood loss. Rana dab. What vessel could be damaged? What anatomic formations are located under occlusive disease that passes through them?

TASK number 6.

 The surgical department enrolled patients diagnosed with "Phlegmon hamstring." What, what is represented by fascial and muscular rear bed, in the course of any anatomical structures and which can spread purulent streaks. Specify incisions for an autopsy phlegmon rear thigh fascial bed.

TASK number 7.

 The surgical clinic enrolled patients diagnosed with "Phlegmon internal fascial and muscular thighs bed." Specify what is presented fascial and muscular bed. What are the fascial-muscular thighs bed? Specify sections cellulitis inner thigh bed.

TASK number 8.

The patient - Tuberculosis of the lumbar spine, complicated TB wandering abscess. Specify the localization of abscess on his hip and possible ways of its spread.

TASK number 9.

 Patient after injury of the knee bursitis arose, complicated drives (inflammation of the knee joint). Name bags located in the knee joint. How is the infection of the bag fell into the joint cavity? List inversions knee. Specify the puncture point of the knee.

TASK number 10.

 The patient - Tuberculosis of the knee joint. Specify sections for opening the knee joint, the steps resection of the knee joint and the root of Textor. Damage of the container may occur if this operation?

 TASK number 11.

 The surgical department enrolled patients with cellulitis of the popliteal fossa. Specify the possible pathways of pus from the popliteal fossa. What are the topography of neurovascular popliteal fossa and cuts when phlegmons this area.

TASK number 12.

 The surgical department enrolled patients with extensive injury in the knee joint. The examination revealed the following: patient - stop at maximum flexion and rotation inwards. Specify the location and localization of injuries which nerve damaged by this trauma?

TASK number 13.

 The surgical clinic enrolled patients with cellulitis of the front bed of the lower leg. What fascial-muscular cases shin of the neurovascular bundle. Specify surgical approaches for opening cellulitis front fascia sheath shin.

TASK number 14.

 The surgical department enrolled patients with cellulitis fascial and muscular rear casing shin. Name the muscles and neurovascular structures posterior fascial-muscle sheath shin, the spread of pus and cuts in this pathology.

TASK number 15.

 The surgical department enrolled patients with cellulitis of the plantar surface of the foot. The examination found that the purulent process is localized in the median of the foot bed. Name the muscle-fascial bed plantar surface of the foot, the neurovascular bundle of the sole of the foot and the spread of pus. Specify sections Delorme.

TASK number 16.

 Phlegmon median foot bed difficult streaks of pus in the rear of the foot and heel to channel. Specify the possible pathways of burrowing pus and purulent processes in the sections of the sole of the foot (sections Delorme).

TASK number 17.

In the surgical ward of the military hospital he admitted the injured with a wound to the thigh. On the front of the thigh there is an infected wound to the femoral artery injury. The surgeon decided to tie the artery over. Call projection line of the femoral artery ligation and place collateral blood supply to the lower divisions.

TASK number 18.

The surgical department enrolled patients with lesions of the popliteal artery. After the audit decided to impose a vascular wound seam. Call projection line popliteal artery access, layered topography of the wound and the principle of vascular seam Carrel.

TASK number 19.

 The neurosurgical department enrolled patients with soft tissue injury hamstring and sciatic nerve. What line of projection of the sciatic nerve, layered topography access in the middle third of the femur and the principles of nerve suture.

      TASK number 20.

 The victim entered the surgical department with extensive superficial wound popliteal fossa and the upper third of the leg. Minor bleeding. The foot is in maximal extension. Damage sensitive back of the leg. Specify the anatomical structures damaged and the projection line.

TASK number 21.

 In the surgical department went affected with damage to the foot. When viewed from the wound and foot radiography revealed: lack of skin on the back, the plantar surface of the foot, bone fractures of fingers and metatarsals distally. Give justification for the proposed operation. What are the stages of the operation.

TASK number 22.

 The patient is determined by pain, redness, floating in superolateral quadrant of the gluteal region. Diagnose and determine the tactics of the surgeon.

PROBLEM №23.

When dissection of the channel leading student was crossed nervous Barrel lying on the femoral vessels. What nerve was crossed?

PROBLEM №24.

      The surgical department delivered to a patient with a knife wound in the front of the thigh upper third, bleeding, hematoma. Diagnosis? Tactics of the surgeon?

TASK number 25.

 On examination of the knee after injury is marked swelling (holes on either side of the patella smoothed). Diagnosis? Tactics of the surgeon?

TASK number 26.

 The patient complains of severe pain in the right shin Expander character, swelling of the foot, lower leg, raising the temperature to 390S. Sick for 3 days. On examination, the skin of the foot and lower leg hyperemic, tense, shiny. Circle right shin left more than 5 cm. Movement is possible, but it is very painful, it is determined by tenderness along the vascular bundle. Diagnose and determine the tactics of the surgeon.

TASK number 27.

 The patient with a fracture of the femur at the level of the middle third of the hematoma increases in the rear is muscular-fascial bed. Explain how the blood vessels are damaged, however the internal guidelines should take the surgeon to access these blood vessels with a view to the final stop bleeding.

TASK number 28.

 The patient K., 70 years old, developed postinjection abscess deep in the right gluteus maximus Explain cause significant tissue tension and expression of pain. What is the nature of the prevalence of purulent inflammation?

      TASK number 29.

 The surgical department of admissions F 48 years old, over a deep cut wounds gluteal region accompanied by heavy bleeding. What features of the blood supply to that area is caused by difficulties of hemostasis in the wound? What procedure should be carried out at a failed attempt to stop the bleeding in the wound?

TASK number 30.

 One of the symptoms indicating the injuries of the hip and hip fracture is the offset from the top of the greater trochanter line Roser-Nelatona. How is this line? In what types of injuries of the hip joint, it is of practical importance?

TASK number 31.

 Patient T., 18 years old, Cox. In some parts of the capsule of the hip joint has "weak" places? Explain the spread of burrowing pus.

TASK number 32.

 Clinical observations show that the femoral hernia bowl common in women than men. Give the anatomical basis for this rule.

TASK number 33.

At the reception to the surgeon asked the patient C. 48 years. Diagnosis: "Right-sided femoral hernia." From anamnesis revealed pathogenetic factors hernia: increased intra-abdominal pressure, degenerative changes in the layers of the abdominal wall and pelvis due to cough bronchiectasis, three births. What anatomic predictors of femoral hernia.

      TASK number 34.

 The femoral canal height of 1-2 cm is formed in the femoral hernia. Name the wall of the femoral canal. What is the internal wall of the hole cut through when strangulated femoral hernia?

TASK number 35.

 Patient C., 56 years old, suffering from hypertension, is carried out by intramuscular injection solution of magnesium sulfate in superolateral quadrant of the gluteal area. As a complication arose postinjection abscess gluteal region. Explain what features anatomical relationship gluteal fascia and gluteus maximus should be guided by the surgeon for a radical abscess drainage.

TASK number 36.

Patient S., 31 years old, tuberculous spondylitis etiology of lumbar vertebra tuberculosis complicated wandering abscess, which spread to the lesser trochanter of the femur. Enter through the gap and what a muscle fascial sheath wandering abscess tuberculosis could spread into the front area hip

Operations on vessels of extremities (USC)

TASK number 1.

When you break the wrist flexor tendon in the primary treatment of wounds surgeon sutured the damaged ends. After the suturing wounds marked incomplete extension of fingers. Despite this, the doctor put a plaster Longuet and sent the patient to outpatient treatment. The proper functioning of the surgeon?

TASK number 2.

A patient with a knife wound to the upper extremity revealed damage to the side wall of the brachial artery above the discharge of the deep artery of the upper arm. The surgeon put two ligatures above and below the damaged vessel stitched and bandaged. Then he crossed the artery between piercing and distal ligatures, vagina stitched fascial neurovascular bundle and superficial tissues. Is the surgeon acted to preserve the blood supply of the upper limb of the patient?

TASK number 3.

In the surgical ward of the military hospital he admitted the injured with a wound to the thigh. On the front of the thigh there is an infected wound to the femoral artery injury. The surgeon decided to tie the artery over. Call projection line of the femoral artery ligation and place collateral blood supply to the lower divisions.

TASK number 4.

The surgical department enrolled patients with lesions of the popliteal artery. After the audit decided to impose a vascular wound seam. Call projection line popliteal artery access, layered topography of the wound and the principle of vascular seam Carrel.

TASK number 5

After being wounded in the front region of the tibia middle third of it was formed, saggy stop. What nerve is damaged?

PROBLEM № 6. wounded in the buttocks. Heavy bleeding from large vessels. What operation should be performed?

TASK №7. Acute thrombosis of arteries of the extremities. What surgery is shown in this case?

TASK number 8.

Wound popliteal artery. The finiteness of a tourniquet. Angiorrhaphy impossible. What sparing surgery it is advisable to take?

TASK number 9.

The patient Y., 17, popliteal artery thromboembolism complication of mitral valve rheumatic etiology. The surgeon makes an indirect embolectomy. Indicate what is the essence of this method is how to remove the clot. Which tool is used for this operation?

TASK number 10.

In Moscow, 45 years old, as a result of a gunshot wound has extensive destruction of the arterial wall. What methods of ligation of the vessel may be used for the final stop bleeding?

TASK number 11.

The patient, 26 years old, a gunshot wound of the axillary region. To provide hemostasis the surgeon decided to tie the axillary artery. Specify the sequence of the ends of the artery ligation: how many ligatures applied to the central and peripheral ends of the arteries? How is the control of hemostasis reliability?

TASK number 12.

Surgeon bandaging the central end of the main artery in the deep inaccessible wound. Explain the technique to be used by the surgeon and assistant to provide an anchor tying ligatures to the second node.

TASK number 13.

The surgeon performs vneproektsionny access to the brachial artery in the middle third of the arm. Explain how nerve should shift towards approaching the artery at this level?

TASK number 14.

The surgeon places a circular vascular suture in a manner Carrel. Explain the purpose for which pre-excised outer shell

adventitia, freeing it from the last 2-3 mm artery?

TASK number 15.

In imposing circular vascular suture in a manner Carrel surgeon connects the ends of the artery three "U" -shaped seam-taped. For what purpose are used-taped seams?

TASK number 16.

Patient M, 65 years old, on the popliteal occlusive disease and ankle area is planned femoral-zadnebolshebertsovoe bypass surgery using microsurgical techniques. For this reconstructive surgery decided to use the vein of the umbilical cord.

What advantages does this Vienna, compared with autovenous transplant?

TASK number 17.

Patient M., 65 years after reconstructive operation zadnebolshebertsovogo-femoral bypass postoperatively to prevent thrombosis at the site of reconstruction is performed catheter intraarterial infusion of 800 ml reopoliglyukina heparin and nicotinic acid using a roller pump. What artery front side of the abdominal wall should be used for intra-arterial infusion

TASK number 18.

In phlebology, along with operations in the superficial and deep veins of the lower limb, apply a bandage communicating veins nadfastsialnuyu

by Kokketu and podfastsialnuyu by Linton. Explain the purpose of these operations.

PROBLEM № 19. In the lower third of the front area of ​​the lower leg has a crush bleeding wound. Which vessel and at what level it is advisable to tie up in this case?

Operations on the tendons and nerves (DOS)

TASK number 1.

The neurosurgical department enrolled patients with soft tissue injury hamstring and sciatic nerve. What line of projection of the sciatic nerve, layered topography access in the middle third of the femur and the principles of nerve suture.

PROBLEM № 2. The victim entered the surgical department with extensive superficial wound popliteal fossa and the upper third of the leg. Minor bleeding. The foot is in maximal extension. Damage sensitive back of the leg. Specify the anatomical structures damaged and the projection line.

TASK number 3.

 Wounded, the tibia at the bottom third, within the anterior-lateral surface of it. Lack of skin sensitivity on the rear of the foot. On any nerve damage does this show?

TASK number 4.

The patient has a damaged tendon (hack) in the "danger zone." Which methods tendorafii preferred in this case?

TASK number 5.

Patient C., 40 years old, and after neurolysis of the sciatic nerve excision of all there was a big nerve defect. What techniques are used in surgery of peripheral nerves to connect the ends?

TASK number 6

 From the history of purulent surgery known that subcutaneous and tendon felon after bilateral anterolateral incisions in the phalanx offered through drains from one side to the other. What are the disadvantages of this technique drainage synovial sheath

TASK number 7.

The surgeon proceeded to the final phase of the operation when panaritiums. What are the most effective form of drainage.

TASK number 8.

In polyclinic reception to the surgeon asked the patient K., 26 years old. After the manicure she developed inflammation of the periungual roller paronychia in one corner of the proximal portion of the nail plate. Which sections are used in this situation, where they are applied

TASK number 9.

In the outpatient reception at the surgeon's patient S., 44 years old, with a lesion which paronychia okolonogtevogo roller at the base of the nail plate. Explain the technique of the operation.

TASK number 10.

 Patient C., 28 years old, as a result of post-traumatic hematoma originated hyponychial hyponychial felon with a central location abscess. Explain the scope of surgical intervention.

TASK number 11.

 The patient B., 25 years old, hyponychial felon with localization of purulent focus is closer to the free edge of the nail. Explain the scope of surgical intervention.

TASK number 12.

The patient T., 30 years old, hyponychial felon. Most of the nail plate peeled pus from his bed. Specify the amount of surgery.

TASK number 13.

 For tendon felon tenosynovitis characterized by four objective evidence: 1 uniform swelling of all the affected finger; 2 tenderness probe palmar surface of the finger, clearly delimited area location of the tendon sheath; 3 severe pain when you try to passive movements, especially when straightening the finger; 4 fixation patients affected finger in the position of the bending of light. Give the anatomical and physiological study these symptoms.

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TASK number 14.

The surgeon examines the probe zone in the most painful tendon panaritiums index finger. How external reference points correspond to the distal and proximal boundary of the most painful.

TASK number 15.

 When arthrotomy be damaged articular cartilage. What technique will avoid damage to the articular cartilage in the synovial membrane dissection

TASK number 16.

When the elbow arthrotomy on the VF-Voyno Yasenetsky produce two front and one posterolateral longitudinal sections. Describe the technique of these cuts.

TASK number 17.

The surgeon makes counteropening from the posterior-lateral compartment of the knee joint. Specify whether the nerve can be damaged when applying counteropening how to eliminate this complication

TASK number 18.

Patient A., 35 years old, enrolled in the Department of Surgery of the peripheral nerves with impaired function of the radial nerve as a result of infringement in the rumen. 4.5 months ago, he was receiving treatment for a gunshot wound middle third of the shoulder. Specify the direction for external neurolysis nerve surgeon will allocate from the rumen, which method determines the conductivity of nerve

PROBLEM №19.

When applying nodal suture nerve surgeon met with complication - the eruption of the seam. Which joint is stronger when approaching the ends of nerve What are the disadvantages of this seam?

TASK number 20.

Out of the corner of the fallen glass, the patient on the dorsum of the foot is applied deep incised wound. Tendons some muscles may suffer for this injury?

TASK number 21

A child with a fracture of the humerus in the middle third - was hospitalized. On examination revealed paralysis of the rear and lateral muscle groups of the shoulder and forearm. What nerve has been damaged?

Operations on the joints and bones of the extremities; Amputation and disarticulation (RT)

TASK number 1.

 The surgical department enrolled patients with extensive damage to the elbow, shoulder. It is recommended to perform a double flap amputation in the upper third of the shoulder. What are the main stages of the operation, the rules of cutting out a skin graft. What are the blood vessels and nerves to be processed at this operation?

 OBJECTIVE number 2.

  In the emergency room surgical department did a boy of 12 years with crushing of soft tissues and bones of the fingers and wrist pastern. After an injury took 4:00. The surgeon used a method of cutting out dvuhloskutny skin in the lower third of the forearm. Formed stump with excess soft tissue, sewed the muscle - antagonists on sawdust bone with tension. Is it true tactics of the surgeon in choosing the level of amputation? What principles of amputation in children were provided, and which violated?

  TASK number 3.

 In the children's trauma unit entered a child of 7 years with a severe injury in the forearm. Patients showed an amputation in the lower third of the forearm. The surgeon performed a circular incision of the skin with fatty tissue and skin drawn over the edge ("cuff"), crossed the muscles and bones. He formed stump and put a seal on the bottom surface of the stump. What mistakes in the actions of the operator why postoperative formed "vicious" cult?

 TASK number 4.

 The affected child 10 years dvuhmomentnaya performed amputation of the forearm on the border of the upper and middle thirds. After dissecting the muscle array past were drawn proximally and along the edge drawn muscles crossed both bones of the forearm. Muscles - antagonists sewn on sawdust without tension. Postoperatively picked weak functional activity of the stump, insufficient blood supply and its excessive konichnost. What mistakes were made during the operation?

  TASK number 5.

 After a road accident, a child of 12 years was made 3 Torque Pirogov amputation. The next day, the patient had severe pain kauzalgicheskie, it is difficult to be resolved using painkillers. What are the errors in the formation of the stump can be admitted? What is the operation - reamputatsiya?

  TASK number 6.

 A child 10 years after the crushing of almost all leg and foot when avtotravme hospital was carried out surgery. In which of the following options must stop surgeons?

 a) remove the feet and legs up to the knee;

 b) keep the knee joint, leaving a length of the tibia

       3 cm;

 c) remove the foot and lower leg, knee disarticulation produce

      joint;

 d) remove the feet and legs, make supracondylar amputation

      hips Gritti - Shimanovsky;

 d) remove the feet and legs, make supracondylar amputation

      Albrecht hips;

     What are the three main principles of amputation in children were put in

     based on the selected option?

  TASK number 7.

 In the casualty department of a child 14 years crush the foot and lower leg amputation was performed in the lower third of the tibia. To form the stump and excess soft tissue shin bone was truncated above the muscle 4 cm. After 6 months postoperatively formed bone protrusion that does not allow to use a prosthesis. What principle of amputations in children has been violated? What is the second operation in this situation?

 TASK number 8.

  A boy of 10 years with tuberculous lesion ankle radiologically determined the complete destruction of the articular surfaces of the ankle joint. It is necessary to perform a resection arthroplasty without opening the cavity. What two basic principles of amputation in children should be kept in mind in the first place?

 TASK number 9.

  After the amputation of the leg in the middle third of a child 12 years with the purpose of increasing the area of ​​the reference stump surgeon performed synostosis tibia and fibula, formed muscle - fascial pillow over sawdust bone. Shin stump was closed with a skin graft suture on the back - the lower surface of the stump. Six months after the operation revealed varus deformity stump. What is the technical error of the operation? Why is there distortion?

 PROBLEM №10.

 After inspecting the injured foot in a child 10 years it was decided to perform the amputation Sharpe. In operation it found that metatarsals almost all smashed. Retaining only the proximal part of their heads. The surgeon performed the disarticulation of Lisfranc foot, removing the remains of the metatarsal articular cartilage. Stump foot formed by the long plantar flap. What mistakes are determined by the actions of the surgeon? What are the two complications that are likely to arise in childhood, if we ignore these errors?

 TASK number 11.

  When the bone - plastic Pirogov amputation of the lower leg, the boy 14 years the surgeon has decided to reduce the level of amputation and performed the isolation of the ankle, followed by resection of the ankle. Are the actions of the operator to position the basic principles of amputation in children? Justify right or wrong action.

 TASK number 12.

  When the fastsioplasticheskoy amputation shin in the middle third of a boy 7 years old was discovered multisplintered fractured fibula. The latter has been completely removed. Muscle cushion was formed by the three-headed calf muscle. Fascial plate is cut by the front sheet of your own fascia shin. The seam of the skin on the back-imposed lower surface of the stump. In the late postoperative period revealed deformation of the tibia and rekurvatsiya in the knee joint. What mistakes were made during the operation?

 TASK number 13.

  During amputation in the middle third of Pirogov boy 15 years surgeons used a remote distal femoral epiphysis, diaphysis autoplasty performing hip. Bone graft was planted on the femoral shaft and fixed spokes. Muscle cushion formed by muscle - antagonists, stitched with tension on the bone sawdust. Skin seam is formed on the back-bottom surface of the stump. Are the actions of the surgeon? What is the goal pursued Surgeon fixing a femoral shaft sawdust removing it epiphysis?

 TASK number 14.

  A boy of 15 years after an open comminuted fracture of the tibia in the middle third with extensive soft-tissue crushing performed amputation of the lower leg on the border of the upper and middle thirds. In the postoperative period showed signs of infection with tissue rapidly expanding gas gangrene of the stump. The surgeon made reamputatsiyu in the upper third of the leg on the type of primary surgical treatment of wounds. Are the actions of the surgeon. What principle of amputation may be waived in this situation?

 TASK number 15.

 In the surgical ward boy of 10 years admitted in an hour after the train injury to the almost complete separation of the tibia at the level of the lower third of the length. On examination of the amputated limb stump only associated with skin - fascial flap. The surgeon performed the amputation of the lower leg at the level of injury by type of primary surgical treatment. To close the skin defect in the formation of a stump used skin - fascial flap to be removed from the amputee. List the five principles of amputation, which form the basis of this operation?

 TASK number 16.

 A boy of 12 years of road trauma was crushing his left foot. On examination revealed complete destruction of soft tissues phalanges and the metaphyseal region. During the operation in the case of the operation of plantar Lisfranc stump close the flap would not be possible because of the failure of its length. In the case of amputation above Lisfranc joint even 1 - 2 cm length of a skin graft will be sufficient, but the violation occurs five principles of amputation. List the five principles of amputation to be violated in this situation?

 TASK number 17.

 After the isolation of the tibia in the knee joint in a child of 9 years it was used dvuhloskutny way of cutting out the skin. A method of closing sawdust bone - skin-fascial-tendon. Large vessels were cut 2 cm above the level of amputation, and nerve trunks 4 - 5 cm. Rear skin-fascial flap is closed to form a stump seam on the lower front surface. In the late postoperative period revealed ulceration of the skin of the stump and the inability to wear a prosthesis. What error in performing amputations. What principle amputation was broken?

 TASK number 18.

      The girl of 7 years as a result of crush syndrome and apparent frailty fingers made disarticulation of 1, 2 and 3 fingers of the left hand. In the elevation of the first finger and palm back of the hand he was missing and had skin necrosis of the long flexors and extensors of the thumb. It was decided in any case to maintain healthy tissues thenar, remove necrotic, perform skin plasty by the anterior abdominal wall. What are the three principles on the upper limb amputation doctor aimed to definitely keep in this situation?

 TASK number 19.

  The baby boy casualty department enrolled 14 years after the road accident with a serious injury the right lower limb, seen and radiography revealed extensive fragmentation of open tibia combined with satisfactory condition of the soft tissue (nerves, blood vessels, muscle array). Offer volume of surgical intervention.

 TASK number 20.

 The baby boy casualty department enrolled 13 years after the traffic accident. On examination revealed mnogoskolchaty open fracture of the thigh with crushing of soft tissue (muscle array. Vessels and nerves) about 2 \ 3 the diameter of the limb. Offer volume of surgical intervention.

 TASK number 21.

 What should be the length of the front flap of skin at the amputation of the leg in the middle third of a boy of 15 years, if the length of the circumference at the level of amputation was 27 cm? What principle of amputation and what rules cutting out skin graft must be considered in this situation?

 TASK number 22.

When the dvuhmomentnoy amputation in the middle third of a boy of 10 years was applied dvuhloskutny way of cutting out the skin (2 \ 3 the length of the front and 1 \ 3 adjustable based contractility of the skin) .After crossing muscles drawn around the edge of the skin, the surgeon circularly cut and removed femoral periosteum bone it the separated 3 cm proximally arc across the bone saw. To cover the stump was used fasciitis - mioplastichesky method. In the immediate postoperative period revealed osteomyelitis stump. What technical error was made intraoperatively? Specify the competent actions that prevent this complication.

 TASK number 23.

 The first victim is a forearm amputation in the lower third, the second - on the border of the upper and middle thirds. Where it is necessary to apply the method of amputation dvuhloskutny and take into account first of all the principle of prosthetics and where to use the cuff method and take into account the first principle of parsimony?

 TASK number 24.

 In the casualty department at 4 hours after the injury done to the victim 14 years smashed all the phalanges and the metacarpal bones of the hand. Determine the level of amputation and a way of cutting out a skin graft.

TASK number 25.

         In the casualty department entered the victim with a broken collarbone and a large hematoma in the area of ​​the fracture. Specify the direction of displacement of fragments of the clavicle. What a vessel damaged by this disease and its flat line?

   TASK number 26.

 The patient entered the clinic with complaints of their own inability to take a hand to a horizontal position. In anamnesis - fracture of the humerus. Specify the possible causes of this condition, let topographic - anatomical study of this disease.

TASK number 27.

Anatomical and physiological characteristics of a long bone, large bone wound healing time and the possibility of displacement of bone fragments due to muscle pull is determined especially surgery on this organ. Call them.

TASK number 28.

In the surgical treatment of fractures of the long bones is necessary to provide conditions for the regeneration of bone tissue. What are these conditions.

TASK number 29.

 In the treatment of closed fractures of long tubular bones • apply skeletal traction, providing a good reduction and fixation of bone fragments. When it is shown skeletal traction. Which means it is carried out?

TASK number 30.

In surgical practice, a subperiosteal and chresnadkostnichnaya bone resection. Explain the main differences of these operations.

TASK number 31.

Patient K., 15 years old, about the ankylosis of the hip performed subtrochanteric osteotomy for hip KN nomadic.

Which method is used for stable matching bone fragments?

TASK number 32.

Sick J., 18, on the ankylosis of the hip performed subtrochanteric osteotomy for hip AA Kozlovsky.

 Which method is used for stable matching bone fragments?

TASK number 33.

Patient A., 22 years after the end of treatment of tibia fracture observed shortening of the leg 7 cm. How can we achieve limb lengthening?

TASK number 34

Patient B., 18 years old, with ankylosis of the knee performed supracondylar osteotomy of the hip Röpke. What is the advantage of this type of osteotomy?

TASK number 35.

To open the retrograde intramedullary nailing in fractures trauma plans quick access to the bone. What criteria it should use when choosing a quick access.

TASK number 36.

In the treatment of oblique fracture of the tibia can be used plastic sliding bone graft for Sh.D. Hahutovu. What are the main steps of this method

The topography of the cerebral department head (ish)

TASK number 1.

 Patient 36 years taken by ambulance with complaints of headache, swelling in the cranial vault. Two hours ago, I slipped and fell on the ice. On examination, the surgeon noted the presence of fluctuating swelling., Limited front - the upper edge of the eye socket, in the back - the upper nuchal line, the sides - the superior temporal line.

The surgeon has diagnosed - a hematoma of the cranial vault. In a layer of fiber is bleeding?

TASK number 2.

Patient chopped wounds parietal region copious notes arterial bleeding. Despite the wound treatment with hydrogen peroxide and the imposition of a pressure bandage, the bleeding has not stopped. What is the cause of excessive bleeding and how to stop it?

TASK number 3.

 When the primary surgical treatment of penetrating wounds of the frontal area of ​​the surgeon decided to excise soft tissues 1 cm from the edges of the wound within the healthy tissue. Is it correct?

TASK number 4.

 Student during the response claimed that supratrochlear and supraorbital arteries are branches of the external carotid artery, as well as the occipital and posterior ear artery. Is the student replied?

TASK number 5.

At what points can be carried out regional anesthesia big occipital, frontal and supraorbital nerves?

TASK number 6.

The neurosurgical department delivered the patient unconscious bleeding from damaged soft tissues of the right temporal region. On radiographs of the skull bones are not damaged.

1. Why trauma temporal region are dangerous?

2. How to stop the bleeding from the soft tissue?

TASK number 7.

The surgical ward was taken ill with a scalped wound in the fronto-parietal-occipital region. In primary wound care, attention was drawn to the extensive subperiosteal hematoma. Postoperatively, the patient was formed sequester a significant portion of the right parietal bone. Point out the possible causes of this complication. What features of the topography of the area should be kept in mind in order to explain this complication?

TASK number 8.

 In patients who are treated at the therapeutic department about hypertension, suddenly showed signs of increased intracranial pressure. The attending physician has put leeches on the skin in the mastoid. Explain why the mastoid area selected for fixing the leeches?

TASK number 9.

 The surgical department enrolled patient with a wound to be cut (5-6 cm.) Soft tissue temporo-parietal region. The bandage on his head and clothes were soaked with blood profusely. Specify the source of the bleeding. What are the peculiarities of the topography of the soft tissue of the cranial vault can be explained as heavy bleeding?

TASK number 10.

The patient after surgery - mastoidectomy (antrotomiya) originated peripheral facial paralysis. Give topographic anatomical study of this complication.

TASK number 11.

 Patient after removal of lipomas in the parietal region postoperative wound was infected, and then there was thrombosis of the upper-sagittal sinus dural. Specify the particular topography of the vessels in the cranial vault, which can justify the spread of the infection of the soft tissue in the cranial cavity.

TASK number 12.

 After opening the carbuncle occipital region, which is located outside from the external occipital protrusion, the patient revealed severe bleeding in the wound. Specify which vessels could be melted purulent processes in this area?

TASK number 13.

 During the operation - mastoidectomy (arthrotomy) about purulent mastoiditis in the depth of the wound began to bleed heavily. Select a possible source of the bleeding and how to stop the bleeding.

TASK number 14.

 After a car accident in the hospital ambulance transported three patients with soft tissue injuries of the head. One of the victims is determined poured massive hematoma, another hematoma is localized within the parietal bone, the third - slight bruises, hematomas presented localized surface (cones). The localization of hematomas in all three affected patients.

TASK number 15.

 The neurosurgical department enrolled patients with progressive symptoms of increased intracranial pressure. He was diagnosed with a tumor of the temporal lobe of the brain. The patient was made palliative surgery to reduce intracranial pressure. Indicate which operation was performed to the patient and its stages?

TASK number 16.

 The patient has a fracture of the skull base is accompanied by bleeding from the nose and a symptom of "points." Indicate at which of the cranial pits there was a fracture of the skull base. Explain topographic anatomical appearance of symptoms, "points" and bleeding from the nose.

TASK number 17.

 In the emergency department delivered a child with a brain injury, which was diagnosed subdural hematoma on the right parietal region with symptoms of compression of the brain. What operation is shown to the victim? Describe the stages of the operation, call the possible source of the bleeding.

TASK number 18.

During mastoidectomy with purulent mastoiditis in a child of 8 years had a strong bleeding bone. What made the tactical error of the surgeon? What are the possible source of the bleeding and how to stop it.

TASK number 19.

 In the emergency room the child did 7 years of road trauma - scalped wound parietooccipital areas with signs of fracture of the cranial vault and profuse bleeding from the wound. Specify the particular treatment of soft tissue injuries of the cranial vault, how to stop bleeding from the covering layers of the cranial vault, the bones of the cranial vault.

TASK number 20.

A child 10 years after the injury in the emergency room diagnosed: "fracture of the skull base in the rear cranial fossa." 10 What nerve and vascular lesions, which can be damaged by fractures in the area?

TASK number 21.

In the emergency room the hospital ambulance delivered a child 8 years after a car accident with a brain injury. Clinically determined by: bleeding from the nose and liquorrhea, upset oculomotor function anisocoria, disorder of sense of smell. Indicate which of the cranial fracture line passes pits. Name the topographic anatomical structures, the failure of which led to such a severe functional impairment.

TASK number 22.

The child 3 years contused wound of the parietal region. Damaged blood vessels soft tissue of the scalp. Bleeding from the wound has stopped spontaneously after a few minutes. Specify the age peculiarities of blood supply to the soft tissues of the cranial vault in children. What is characteristic of bleeding from the same region in adults?

PROBLEM №23.

K., 21 years old, due to injury there is a complete separation of the flap of soft tissue in the frontoparietal area of ​​18 square meters. cm. The bottom is bare bone wounds. Explain the technique of debridement.

PROBLEM №24.

 Neurosurgeon in the surgical treatment of traumatic brain injuries frontotemporal area after excision of soft tissue and periosteum started the treatment of bone injuries. What is the sequence of execution of this phase of the operation What methods provide hemostasis of bone injuries

TASK number 25.

Patient T., 45 years old, perform debridement with damage to the parietal region of the periosteum and bone How is the wound treatment periosteum and bones

TASK number 26.

At audit of soft tissue injury of the parietal region found a small depression fracture fragment is not associated with the skull confirmed craniography. How is the surgical treatment of bone injuries

TASK number 27.

The N. 35 years old, enrolled in the neurosurgical department about traumatic brain injury parietal region, with craniography found depressed fracture of the sagittal sinus. How to produce debridement in this situation

TASK number 28.

 At audit of traumatic brain injuries neurosurgeon stated damage the dura mater.

Which methods may be used to stop bleeding in this situation

TASK number 29

When surgical treatment of traumatic brain injury with skull fracture melkooskolchatym over the superior sagittal sinus sinus dressing was necessary. In some cases, this method shows hemostasis damaged sinus How and what sum strong ligature what consequences may result in the use of this method of hemostasis

TASK number 30.

 Neurosurgeon produces surgical treatment of traumatic brain injury. What is the indication for the opening of the intact dura mater can be complicated The unjustified opening of this shell in traumatic brain injury

 PROBLEM №31.

Neurosurgeon started the final stage of surgical treatment of traumatic brain injury -plasticheskomu defect closure of the dura mater and the bones of the cranial vault. In which case is contraindicated in peacetime! anaplerosis dura

TASK number 32.

Neurosurgeon preparing for craniotomy in the temporoparietal region over the epidural hematoma. Before limitation of the surgical field with sterile linen it with the help of sticks with cotton wool soaked in a 1% solution of brilliant green scheme does Kronleyna. Explain the purpose of the scheme.

TASK number 33.

Patient A., 51 years old, about the rise in intracranial pressure during an inoperable brain tumor perform decompressive craniotomy in the right temporal region of Cushing. It is horseshoe-shaped arched section of the soft tissues. Which side of the field should be given a base of skin-aponeurotic flap? Why? What methods of hemostasis is used in it?

TASK number 34.

 Patient A., 51 years old, about the increased intracranial pressure is made decompressive craniotomy for Cushing. Explain why part of the burr hole to be covered by the zygomatic arch? Why can not expand the burr hole in the anteroinferior direction?

TASK number 35.

Before opening the hard dura mater during decompressive craniotomy on the patient Cushing produce a lumbar puncture. Why does the cerebrospinal fluid is recovered slowly and in small portions of 10-30 ml

TASK number 36

Neurosurgeon after dissection of the dura mater during surgical treatment of a gunshot wound of the parietal region noted the absence of pulsations of the brain. For a intracranial pressure indicates this symptom

TASK number 37

 When osteoplastic craniotomy burr holes it is advisable to connect a wire saw Olivekrona. Why?

The topography of the facial part of the head (LOG)

TASK number 1.

 The Department of Maxillofacial Surgery enrolled patients diagnosed with "acute inflammation of the right parotid gland." On examination - the presence of dense infiltrate anterior to the tragus of the ear, behind the mandibular fossa, pronounced asymmetry of the mouth slit, flattened right nasolabial fold. Specify the possible causes of the symptoms.

TASK number 2

 The patient entered the surgical department with incised wound of the side of the face, the wound is 4 cm long, is located vertically at the branch of the mandible 1.5-2 cm below the zygomatic arch. When auditing the wound and stop bleeding from vessels subcutaneous fat was discovered that the wound is constantly filled with a clear liquid. Specify the kind of education that has been damaged by injury and anatomical elements between which side of the face area is education lies?

TASK number 3.

 The surgical department enrolled patients with laceration side area faces the intersection of the anterior edge of the masseter muscle and the lower edge of the lower jaw, which caused severe bleeding and asymmetry of the mouth slit. Specify which blood vessels and nerves are damaged.

TASK number 4.

 In the surgical department at curing the patient is diagnosed with "Meningitis, thrombosis of the cavernous venous sinus." The history: a boil in the left nasolabial fold. Is it possible to link the presence of purulent focus on the face, followed by disease? Specify the possible pathways of purulent infection.

TASK number 5.

 As a result of road accident the victim formed a laceration on the left side of the face area. On radiographs - comminuted fracture of the branches of the mandible at the level of cervical articular process. When auditing the wounds and the removal of free bone fragments suddenly from the depths of the wound began to bleed heavily. Specify whether the vessel could be damaged by sharp pieces of bone, which is necessary to tie up the vessel in the event of trouble when you try to stop the bleeding in the wound.

TASK number 6.

K. The victim, aged 35, to perform surgical cutting wounds buccal region. Explain why hiatus wounds, considerable bleeding its edges. What features of blood supply due to good wound healing What type of skin suture shown to the patient

TASK number 7.

The patient I., 13 years old, who "squeezed a pimple", developed a boil upper lip. Along with severe intoxication, sudden swelling of the face, marked redness and pain along the front and corner vein to the medial edge of the optic fissure, palpation - veins dense, rolled under the finger. Kakimiosobennostyami structure of the skin is determined by the frequency of localization boils nasolabial triangle What a terrible intracranial complications may occur in this patient Why

TASK number 8.

Patient T., 42 years old, in the clinic of maxillofacial surgery operation is performed on the right-cellulitis Pterygopalatine-mandibular space complication deletion 7 lower right tooth spread in Pterygopalatine-palatine fossa and the buccal region. Explain the need for complex post-operative treatment activities such as feeding the patient or liquid food through a tube.

TASK number 9.

Patient S., 18 years old, left buccal region abscess of odontogenic origin. What processes cheek fat pad, explaining the way burrowing pus formation in the adjacent area.

TASK number 10.

In Cenis M., age 6, left-sided suppurative parotitis. Among other symptoms, there are shortness of breath, sharp pain when swallowing, bulging left side

pharyngeal wall. What suppurative complication of mumps in this child and the reason for its occurrence.

TASK number 11.

Patient A., 48 years old, urgently operated on the top of the bulb ulcer 12 duodenal ulcer complicated by gastroduodenal bleeding gastroduodenal artery arrosion. On the 4th day after surgery, the patient developed right-sided suppurative parotitis. Consultation Dentistry: periodontal disease, cavities 5 and 7 of the upper teeth. Explain the reason for mumps. Which direction are the cuts in this disease.

TASK number 12.

With operations in the area of ​​the side face cut is made in the "neutral" zones. Explain that represent these zones. What complications can occur when the wrong incision?

TASK number 13.

Patient C, 45, is performed on the right-hand parotidektomiya mixed tumor. What nerve and its branches should be vypreparovany during operation? What method of research allows us to identify distinguished from bands of scar branches of the nerve How can we ensure hemostasis when the parotidektomiya?

TASK number 14.

Parotid-chewing fascia forms a capsule, and the bed of the parotid gland. What is meant by "bed" Which parts of the prostate capsule is more dense and thick, the public is poorly developed. How are relations between the parotid gland and submandibular their capsules?

TASK number 15.

The patient G., 15 years old, sluggish granulating wound after opening purulent parotitis zanizhnechelyustnoy fossa difficult arrosive arterial bleeding. Name the source of bleeding. Which way should take hemostatic surgeon

TASK number 16.

K., 31 years old, traumatic brain injury combined with two-way closed fracture of the lower jaw. As a complication of a fracture of the lower jaw develops mechanical asphyxia. What a welcome shown to eliminate asphyxia during transport to hospital?

TASK number 17.

 Patient P., 13 years old, metagrippal maxilla sinus sinusitis. What anatomical posts maxillary sinus with the nasal cavity can be explained by the fact that of all the paranasal sinuses purulent inflammation often develops in the maxillary?

TASK number 18.

The patient M., 18 years after sinusitis etmoidita-developed optic neuritis. Explain the mechanism of occurrence of this complication.

TASK number 19.

 Patient B., 29 years old, shortness of teething 8 lower right tooth and, as a consequence, inflammation has spread to the mandibular canal with the development of severe pain. What are the peculiarities of the relationship of the lower back teeth with mandibular canal can be attributed to the involvement of this channel in the inflammatory process, characterized by severe pain.

TASK number 20.

 In a study of patients describes the pharynx. Explain the concept of "jaws" and "limfoepitelialnos ring." Why is the frequency of throat inflammation

TASK number 21.

Patient R., 19 years old, as a complication of pulpitis 7th upper right tooth, purulent sinusitis, sinusitis maxilla. What features anatomical relationship of the roots of the upper teeth 7 can be explained by the transition of the inflammatory process in the maxillary sinus

Topography of the internal organs of the neck (TOSH)

TASK number 1

Patient M., 12 years periodontitis due to deep caries and pulpitis 2nd right lower molar was complicated by right-sided submandibular cellulitis. Which route of infection in the submandibular triangle is the case in this patient. What is involved in the cellular spaces suppurative process in which areas can be streaks? What a cut opened submandibular phlegmon Specify the possible complications of this section?

TASK №2.

Foreign body perforation of the esophagus caused the posterior wall at the VII cervical vertebra, resulting in an abscess circumesophageal fiber. Specify the possible pathways of burrowing pus and define the operational access for an autopsy phlegmon of space.

TASK number 3.

In the department of purulent surgery hospitalized patients 3 and 16 years old. Because perforation of the esophageal wall bone in a patient has swelling neck over the left side, pain on swallowing, turning the head, body temperature 39,3 °. Please indicate in which cellular spaces neck abscess developed. In what area can be formed burrowing pus? Where to make the cut for the opening of cellulitis?

TASK number 4.

One of the stages of surgical treatment of cancer of the lower lip is futlyarnoy-fascial excision of tissue and lymph nodes submandibular triangle Wanach operation. Explain the need to remove while submandibular gland. What nerve may be damaged during surgery. What are the blood vessels ligated and cross during surgery.

TASK number 5.

Step prior to resection of the upper jaw in cancer using a "knife" technique is ligation of the external carotid artery in a sleepy triangle. What caused the need for such an operation Describe-projection line and the incision to expose the external carotid artery. What signs should take the surgeon to distinguish the external carotid artery from the inside

TASK number 6.

When you select the bifurcation of the common carotid artery was damaged nerve branches located on the anterolateral surface of the fascial compartment of the vessel. Name this branch, what complications can occur when it is damaged vein What should tie and cut to enhance rapid access to the bifurcation of the common carotid artery

TASK number 7.

 During the exposure of the external carotid artery surgeon "left" in the internal jugular vein. What position is occupied by external carotid artery in relation to the internal jugular vein Specify artery ligation which is a threat to the patient's life: external or internal carotid.

TASK number 8.

Patient D., 47 years old, with peritonitis produced by external drainage catheter selection and thoracic duct. Explain the purpose of the operation. Where it flows into the thoracic duct, which incision increasingly used for its allocation

TASK number 9.

After the lower tracheostomy patient appeared pain in the surgical wound, skin redness, pain, swelling, increased body temperature to 39-40 °. Name the layers of tissue of the neck, which can develop purulent process than they are limited, which spread purulent streaks

TASK number 10.

 Patient D., 55 years old, with chronic gastritis hypoacid discovered node plotnoelasticheskoy consistency in the left supraclavicular fossa low between the legs of sternocleidomastoid muscle. What should be suspected in this patient What is the mechanism of development of pathological process

TASK number 11.

Patients with impaired cerebral circulation in the vertebrobasilar basin due to vertebral artery atherosclerosis plaque in the mouth

artery trombendarterektomiya planned. What is the triangle of the neck artery A branch artery which it is in what it achieves the formation of the foramen magnum

TASK number 12.

 The hospital ambulance brought the patient with acute poisoning. For detoxification, it was decided to carry out drainage of thoracic duct. A landmark that the surgeon has to use for the detection of thoracic duct in the neck.

TASK number 13.

The surgical department enrolled patients diagnosed with "phlegmon submandibular area on the right." The surgeon decided to open phlegmon. Specify any damage to structures can occur in the submandibular gland and the lower edge of the mandible.

TASK number 14.

The patient was diagnosed a foreign body in the cervical esophagus, which could not be removed during esophagoscopy. Specify guidelines for the determination of effective access to cervical esophagus.

TASK number 15.

 Ambulance brought the patient to the operating room in a state of asphyxia. The surgeon decided to perform a tracheotomy top. During operation it has been found that the upper edge of the isthmus of the thyroid gland is located at the lower edge of the thyroid cartilage. Specify how to do a surgeon to perform a tracheotomy and some stages of this operation?

TASK number 16.

 After surgery, the lower tracheotomy patient appeared abscess tissue anterior mediastinum. What are the fascial-cellular spaces could spread pus and where?

TASK number 17.

 The surgical department enrolled patients with malignant tumors of the parotid salivary gland, which caused bleeding. Indicate which vessel was damaged and what benchmarks should enjoy the surgeon to expose this vessel in the neck?

TASK number 18.

 The patient has cancer of the tongue. During radical surgery heavy bleeding in the wound, which was decided to stop the lingual artery ligation over. Specify in which the triangles of the neck can expose and tie lingual artery. What you need to push the fabric?

TASK number 19.

 Delivered to patients with fractures of the transverse processes of VI and VII of the cervical vertebrae, increasing hematoma in the supraclavicular region. The wound of the vessel could have happened if damaged bones? Specify guidelines for its location and ligation.

TASK number 20.

 After removal of the left lobe of the thyroid gland in the patient abruptly changed tone of voice. Specify any damage to education, and at what stage of the operation could cause a similar condition.

TASK number 21.

Trying to hemostasis in the wound of the tongue did not give a positive result. In what may be a triangle bandage over the lingual artery. Describe its borders. What body covers this triangle. What should separate the muscle along the fibers to expose the lingual artery?

TASK number 22.

Patient D., 58 years old, with severe symptomatic atherosclerotic occlusion of the mouth of the brachiocephalic trunk there is insufficient blood supply to the brain. Conducted Doppler angiographic and pathologic changes in the common and internal carotid and vertebral arteries did not reveal. At the same time, it showed a significant narrowing of the opening of the left subclavian artery. Explain the mechanism of cerebrovascular insufficiency patient D.

TASK number 23

The patient entered the surgical department V., 15 years. Diagnosis: "Phlegmon mezhaponevroticheskogo suprasternal space." Describe what this space is limited. Where it may be burrowing pus. What kind of education can be damaged at the opening of the cellulitis cut 1 cm up from the jugular notch of the sternum?

TASK number 24.

Lisa M., age 7, abscess right submandibular area. The examination: in the lower cheek area has a festering wound skin - a consequence of an insect bite and scratches. The body temperature - 38,3 °, severe pain and swelling in the submandibular region. Explain the relationship between the inflammatory process in which layer submandibular triangle abscess developed. Why cellulitis at the opening of the retreat should be 1.5-2 cm down from the lower edge of the mandible?

TASK number 25.

Patient C., 21 years, has developed as a result of submandibular abscess hindered eruption of the lower right wisdom tooth. What is the relationship between the difficulty of the eruption of the tooth and the submandibular phlegmon cellular spaces in which developed cellulitis Specify the possible pathways of burrowing pus.

TASK number 26.

The ENT - department received patients with esophageal foreign body. Remove the foreign body during esophagoscopy failed. Where often retained foreign bodies of the cervical esophagus. Which cervical vertebra it corresponds. Which side access the esophagus, why?

TASK number 27.

After resection of the thyroid gland on the thyrotoxic goiter patient developed hoarseness. Due to a technical error occurred is

complication? What methodology operation avoids this complication, as well as damage to other organs.

Operations on the neck (OR)

TASK number 28.

A child patient with diphtheria, any sudden difficulty of external respiration, appeared acrocyanosis, auxiliary breathing muscles are involved. What urgent surgery is indicated child. What are the complications that occur during this operation. List the specific tools necessary for its implementation.

TASK number 29.

When the bottom of the tracheostomy incision of the trachea at the time there was arterial bleeding. What artery could be damaged by a tracheostomy? Specify the prevention of these complications.

TASK number 30.

In patients suffering from mitral valvular heart disease, there are sharp pains in his left hand. The hand became pale, cold, radial pulse is not detectable. On angiogram revealed an embolus in the subclavian artery at the border of the medial and middle third of the clavicle in the interscalene interval. Which operation shows the patient Which access to the subclavian artery to be applied in this situation What Syntopy this artery.

TASK number 31.

In the intensive care unit admitted patient K., 61 years old, with acute myocardial infarction and cardiogenic shock. The patient made a puncture and catheterization of the subclavian vein by Seldinger. Explain what caused the need for this operation, what are the topographic anatomical conditions that facilitate its implementation. Describe the technique of subclavian vein catheterization and possible complications.

TASK number 32.

The patient has ischemic attacks due to atherosclerosis extracranial internal carotid artery. Explain what determines the amount of surgery. Specify options for operations aimed at restoring cerebral circulation, the incision to expose the internal carotid artery, features external and internal carotid artery.

TASK number 33.

When the primary surgical treatment of burn surface of the shoulder and forearm the most simple, safe and effective way of anesthesia is prolonged blockade of the brachial plexus of Kulenkampfu trimekain. Describe syntopy main neurovascular bundle of the lateral triangle of the neck and the technique of this method of conductive anesthesia.

TASK № 34. What kind of blockade should be made to the patient with penetrating chest wound, complicated plevropulmonalnym shock. Describe the technique of this kind of blockade.

Topography of chest and mediastinal (CBC)

PROBLEM № 1. In the polyclinic the surgeon asked a nursing mother about inflammatory breast cancer. The surgeon diagnosed: "Mastitis" and suggested an operation. Specify which types of cuts necessary to produce this disease, let topographic anatomical study these cuts.

PROBLEM № 2. The Oncology Center asked the patient about the disease of the breast. The surgeon diagnosed: "Breast cancer" and recommended surgery. Specify what is necessary to perform the operation and name the basic principles of the operation.

PROBLEM № 3. Enrolled patients diagnosed with "chronic empyema." The surgeon recommended surgery - thoracoplasty. What are some types of thoracoplasty? What are the main stages of this operation.

PROBLEM № 4. A patient diagnosed with coarctation of the aorta (congenital narrowing of the aorta at the level of the transition arc in the descending aorta). Specify which arteries are involved in the development of collateral circulation capable of filling the aorta below the coarctation.

PROBLEM № 5. The examination of the patient revealed inflammation of the pleura (pleural effusion). When fluoroscopy in the right pleural cavity is determined by the liquid level of which reaches VI ribs on the mid-axillary line. Specify a sinus puncture is necessary and call the necessary tools to perform this operation.

PROBLEM № 6. On the chest X-ray revealed a foreign body in the lumen of the right main bronchus. What topographic anatomic features of the trachea and main bronchi are responsible for getting a foreign body often right than the left bronchus.

PROBLEM № 7. At esophagoscopy was damaged by the back wall of the esophagus at the level of the second constriction. Specify which could penetrate esophagoscope? In some cellular spaces could get an infection?

TASK number 8.

The patient after chest injury road formed pilotoraks (limfotechenie) on the right. Is it possible to roughly indicate the level of damage to the thoracic duct?

PROBLEM № 9. An ambulance brought the patient with massive bleeding throat. In history - two weeks ago, the patient choked on a fishbone, and then it was a bad feeling, temporarily increases body temperature. The patient could not be saved. At autopsy found: necrosis with perforation of the esophageal wall at the level of the second constriction. Select from a vessel emerged bleeding and his relationship with the esophagus.

PROBLEM № 10. At the patient during the examination was diagnosed with cancer of the lung. It recommends surgery - lung resection. What are some surgical approaches during operations on the lungs and what are the basic principles of typical operations on the lungs.

PROBLEM № 11. The surgical department enrolled patients with penetrating wound of the chest (open pneumothorax). Rana 5x5 cm located on Level IV intercostal space on the posterior axillary line. Specify the order of layers of stitches on the chest wall.

PROBLEM № 12. The surgical department delivered the victim with a knife wound to the anterior chest wall, the phenomena of acute blood loss. Wound size is 2 cm in the transverse direction in the IV intercostal space, outwards from the left edge of the sternum. When auditing the wounds was found damaged blood vessels of the chest wall, the parietal pleura. Deeper underlying education is not damaged. Specify which vessels could be damaged?

PROBLEM № 13. The oncology department did a patient with a diagnosis of "cancer of the right lung." The patient was advised surgery pneumonectomy. Specify the access procedure for processing elements of the root of the lung.

PROBLEM № 14. On examination the patient was diagnosed localized pathological process in the lungs. On the operating table after opening the chest cavity the surgeon found that the inflammatory focus is localized within a single segment of the lung. Specify how taking advantage of the surgeon, and what elements of the segment to be processed at a segmentectomy.

PROBLEM № 15. On examination the patient was diagnosed pericardial effusion. It is recommended to carry out a puncture of the pericardium. Specify where to puncture pericardium. What will be the sine puncture? What are sinuses pericardial you know which form of education?

PROBLEM № 16. The patient "blue heart disease" (tetralogy of Fallot). Specify the elements pathology of heart and vessels, which is observed in this pathology.

PROBLEM № 17. The Oncology Center after examination the patient was diagnosed with "cancer of the esophagus in the bottom third" (from the bifurcation of the trachea to the diaphragm). The patient underwent radical surgery and created an artificial esophagus. Point 1. What material is used to create an artificial esophagus; 2. Where can I place an artificial esophagus; 3. What type of anastomosis may be used in this situation?

PROBLEM № 18. Following the radical surgery for esophageal cancer patient creates an artificial esophagus Roux-Herzen. Specify the stages of the operation.

PROBLEM № 19. On examination the patient was diagnosed as "diaphragmatic hernia." Enter through any holes and weaknesses of the diaphragm can get a hernia?

PROBLEM № 20. The surgical clinic patient admitted in serious condition. The examination was diagnosed with "gangrene of the right lung." Patients underwent right-sided pneumonectomy.

Choose:

1. syntopy elements of the root of the right lung; 2. The order of processing elements of the root of the lung; 3. Damage to the vessel in the processing of the right bronchus can happen?

TASK number 21.

Patient T., aged 29, was hit in the right half of the chest with a blunt object at the level VII ribs. Damage to any anatomicheskih- formations and layers of the chest wall was the cause of hemothorax

TASK number 22.

As the ambulance delivered P., 18 years old, with a stab wound VI intercostal space on the anterior axillary line on the right. On radiographs determined hemodialysis and pneumothorax. Damage to any anatomical structures must be suspect in the first place

TASK number 23.

Patient C, 19 years, the flu. On day 3, he developed severe pain in the scapular region at the chest x-ray abnormalities were found. What accounts for these pains?

TASK number 24.

The patient G., 44 years, mammography detected breast cancer. What additional tests are needed to address the issue of the possibility of radical surgery

TASK number 25.

Why inspection and palpation of patients with suspected breast cancer conducted at various locations of the body vertical, horizontal, sitting, Bozeman and upper limb Move aside, lifted up, his hand on the back of his head, and others.

TASK number 26.

The patient W., 35 years old, there is a limitation displaceability breast cancer compared with the other. What breast disease, a symptom of which is to limit the displaceability of the body.

TASK number 27.

Patient K., 33 years old, has a penetrating incised wound of the anterior chest wall level III intercostal space at the middle clavicular line on the left. List layers constituting walls of the wound.

TASK number 28.

The patient found fractures of the lower ribs. He complained of pain in the upper abdomen. What are the abdominal organs may be damaged

TASK number 29.

The patient has a fractured right lower ribs in posterior and tenderness in the upper half of the right lumbar region. Which organs of the retroperitoneal space may be damaged

TASK number 30.

The patient was taken to the hospital with the diagnosis "mastitis." Specify localization of purulent accumulations at an inflammation of the breast

TASK number 31.

The patient exudative pleurisy. In a pleural sinus primarily accumulates fluid

TASK number 32.

Patient I., 53 years old, about COPD chronic nonspecific lung disease right-sided pneumonectomy performed. What are the blood vessels adjacent to the right main bronchus, may be damaged by pneumonectomy

TASK number 33.

3. The patient, 68 years old, about the bronchogenic left lung cancers produce pneumonectomy. What are the blood vessels can be damaged during processing of the left main bronchus

TASK number 34.

Patient B., 57 years after the removal of the upper lobe of the left lung in the pleural cavity puncture revealed yellowish-milky liquid. What is the reason and the name of this complication

TASK number 35.

Patient U., 63 years after the surgery on the medial surface of the lower lobe of the right lung puncture the pleural cavity revealed yellowish-milky liquid. What is the reason? What do you call this complication.

TASK number 36.

The clinic asked the patient A., aged 27, complained of hoarseness. Upper respiratory tract lesions were detected. Made chest X-ray. Specify what kind of education can be constricted tumor or inflammatory infiltrate with subsequent changes in voice

TASK number 37.

On radiographs of the chest of the patient M., 10 years old, found a foreign body in the right main bronchus. What features are most frequently attributed 70% localization of the foreign body in the right main bronchus

TASK number 38.

Patient L., 30 years old, penetrating chest wound in the projection of the heart. What can a patient die? What do you mean "dangerous" area of ​​the breast?

TASK number 39.

In the mobilization of the posterior wall of the thoracic esophagus appeared yellowish milky liquid. What kind of education is damaged? What to do in case of occurrence of this complication?

TASK number 40.

Patient N., 18 years old, had swallowed a foreign body and notes chest pain. In some parts of the thoracic esophagus most often delayed foreign body

TASK number 41.

Patient B., 40 years old, hydropericardium. In what pericardial sinus with the patient on the back of a pathological fluid accumulates. The sinus is limited to the front, rear, bottom and right, left and above?

TASK number 42.

Through what pericardial sinus during cardiac surgery applied a tourniquet to the ascending aorta and pulmonary trunk is limited to the sinus The front and top, rear, bottom?

TASK number 43.

Girl, 5 years old, you must perform a quick access to the open arterial arterial duct. Between what nerves dissected mediastinal pleura?

TASK number 44.

Patient S., 10 years old, breast fluoroscopy upright diagnosed exudative pericarditis. The sinus of the pericardium which primarily accumulates pathological fluid?

TASK number 45.

Patient I., 17 years produce a contrast study of the cavities of the heart through a catheter inserted in the subclavian vein. On which side of the vein catheterization Why? Through what vein will pass the catheter.

TASK number 46.

In elderly patients with cerebral circulation on ischemic type. Occlusion of any branch of the aortic arch can be in this patient?

Operations on the chest wall (OG)

TASK number 47.

3. The patient, 15 years old, scarry stenosis of the esophagus, the unrecoverable probing. What reconstructive surgery is indicated to him. Which organs can be used for this purpose?

TASK number 48.

Patient B., 18 years old, adhesive pericarditis. What operation to perform. What a terrible complication may arise in separating the pericardium from the atria.

TASK number 49.

Patient K., 42 years, with cicatricial stenosis of the esophagus decided to perform plastic small intestine. What are the ways of the area of ​​the small intestine to the neck.

TASK number 50.

Patient B., 14 years, mitral valve insufficiency. Which operation shows the patient?

TASK number 51.

Patient I., 55 years old, chronic ischemic heart disease angina and rest. Coronary angiography allowed to establish stenosis of the left coronary artery by 23 the diameter. What kind of recovery of myocardial perfusion shows the patient?

TASK number 52.

Tanya V? 4 years old, cleft arterial arterial duct. What types of surgical procedures can be used for this malformations.

TASK number 53

Patient T., 6 years old, diagnosed with congenital stenosis of the pulmonary trunk. What operations can be shown to this patient?

TASK number 54.

 Patient B., 23 years old, stenosis of the left atrioventricular opening. Which one shows him. Which online access is used for this operation?

TASK number 55.

Patient B., 23 years old, scheduled mitral commissurotomy, through which department hearts access the left atrioventricular opening

TASK number 56.

Patient B., 23 years after left-sided anterolateral thoracotomy and pericardiotomy about mitral stenosis revealed an enlarged left atrium sharp pink color and a decrease in the volume of the left ventricle of blue. Name this symptom.

TASK number 57.

K., 20 years old, has a stab wound to the "dangerous" chest IV intercostal space on the left okologrudinnoy line. It is suspected injury pericardium and heart. What is shown on-line access to the patient? In what direction is dissected pericardium

TASK number 58.

What are the characteristics of the heart wall is determined by the choice of method of suturing the wounds What joints often used in wound closure walls of the atria and ventricles?

TASK number 59.

Patient D., 14 years old, exudative hydropericardium with the growing phenomena of cardiovascular insufficiency. What kind of surgery is necessary to make?

TASK number 60.

3. The patient, 20 years old, purulent pericarditis. Which one shows it?

TASK number 61.

Patient V? 57y.o., diagnosed with bronchogenic carcinoma of the right lung. What operation is shown to him? Which on-line access should be used?

TASK number 62.

Patient N., 65 years old, bronchiectasis with localized bronchiectasis in the lower lobe of the right lung. What operation is shown to him? What access is preferred in this case?

TASK number 63.

The patient has an open pneumothorax. What should be taken immediately in the form of an emergency? What operation must be performed in a hospital?

TASK number 64.

 The patient was diagnosed residual pleural cavity with bronchial svischёm. What operation should be done in such a situation?

TASK number 65.

 During surgery for lung abscess adhesions between the parietal and visceral pleura were found. How can I open an abscess

The topography of the anterior abdominal wall (TBS)

TASK №1.

In patients T., 23 years old, right-lateral oblique inguinal hernia. What pathogenetic and anatomical conditions of the hernia.

TASK number 2.

Patient K., 63 years old, straight-sided inguinal hernia. What pathogenetic and anatomical conditions of the hernia.

TASK number 3.

Patient T., aged 23, on the right-lateral oblique inguinal hernia hernia repair performed by the method of SI Spasokukotsky-M. A. Kimbarovskogo. What strengthens the wall of the inguinal canal at this hernia As sutured against the spermatic cord?

TASK number 4.

Patient T., aged 23, on the right-lateral oblique inguinal hernia hernia repair performed by the method of SI Spasokukotsky-M. A. Kimbarovskogo. Describe the steps of plastic inguinal canal.

TASK № 5.

Explain the nature of hernia repair.

TASK number 6.

Misha N., 10 years after the injury hit the soccer ball in the right lumbar region developed hepatic vein thrombosis syndrome Budd-Hiari. On examination detected one of the symptoms of portal hypertension extension of the veins of the anterior abdominal wall, the most pronounced in the umbilical region, "Head of Medusa." Give anatomic substantiation of this symptom.

TASK number 7.

Patient P., 21 years old, when herniotomy on the right-oblique inguinal hernia during the isolation of the hernia sac has been damaged by the back wall of the inguinal canal medial to the neck of the hernia sac. There was arterial bleeding. Name the source of bleeding.

TASK number 8.

The patient M., 53 years old, during the isolation of the hernia sac in the left-sided inguinal hernia femoral access emerged bleeding. What blood vessel forming one wall of the femoral canal was damaged when performing this step herniotomy

TASK number 9.

In the surgical ward brought a patient with stab wound of the anterior abdominal wall. The wound 2 cm long in the projection of the right rectus abdominis muscle between the middle and lateral thirds of the width of 5 cm from the navel down. On examination the patient was suspected that the wound can be penetrating the abdomen. To clarify the diagnosis conducted primary debridement; when the audit found extensive bruising along the back wall of the rectus sheath. The peritoneum is intact. Specify the source of the bleeding. Between what layers anterior abdominal wall hematoma localized

TASK number 10

3. The patient, 49 years old, with the purpose of quick access to the stomach is made upper midline laparotomy. Name the layers that make up the wall laparotomic wounds.

TASK number 11

 Anterior abdominal wall is the location where the line access to the abdominal cavity. Specify the group cuts the anterior abdominal wall. What is included in the cuts?

PROBLEM № 12. The surgical department enrolled patients diagnosed with "acute appendicitis". The patient was offered surgery. Specify the name of the operation, the localization of abdominal incision for Volkovich Diakonoff-layered topography and wounds.

TASK number 13.

 When a medical examination of the patient showed a slight bulge in the umbilical ring and the inguinal canal. What are the weaknesses of the abdominal wall, which may extend external abdominal hernia.

TASK number 14.

 The surgery department received the patient with a diagnosis of "Ectopic pregnancy". To gain access to the abdominal cavity was made lower median laparotomy. When dissecting the white line was opened anterior wall of the rectus sheath. Call layered topography of the wound at the lower midline laparotomy, and especially education rectus sheath below the navel ring.

TASK number 15.

 To apply gastric fistula (gastrostomy) patients was performed transrectal incision from the left costal margin, 10 cm long. List the layers of the anterior abdominal wall, which were dissected with the immediate access.

TASK number 16.

 In the therapeutic department enrolled patients with acute heart failure. The examination of the patient the doctor drew attention to the veins of the anterior abdominal wall, the contours of which are especially visible in the area of ​​the umbilical ring. Specify the type of anastomosis which veins are involved in its formation. What possible reason for the expansion of the saphenous veins of the anterior abdominal wall?

TASK number 17.

 When a medical examination of the recruit was found to increase the angle of the triangular shape and Fyurgyussona inguinal period. Specify what formed groin period and what are the forms of inguinal period.

TASK number 18.

 The surgical department enrolled patients diagnosed with "Direct-sided inguinal hernia." What are the main elements of the herniation and specify the course of the hernia sac with direct inguinal hernia abdomen.

Surgical treatment of hernias (OLG)

TASK number 19.

 The surgical department enrolled patients diagnosed with "Right-hand direct inguinal hernia." What are the stages operatsii- hernia repair. Imagine schematically plastic inguinal canal by Bassini.

TASK number 20.

 The surgical department enrolled patients diagnosed with "Left-sided oblique inguinal hernia." Enter course hernia sac. Name the wall of the inguinal canal. Imagine schematically plastic inguinal canal by the method of Girard-Spasokukotsky.

TASK number 21.

 The surgical department enrolled patients diagnosed with "Left-sided oblique inguinal hernia." A step-hernia repair. Specify the projection section, the topography of the wound and layered plastic inguinal canal by Martynov and Kimbarovskomu.

TASK number 22.

 The surgical department enrolled patients with strangulated inguinal hernia. Specify the particular tactics surgeon when performing hernia repair. Imagine scheme plastic inguinal canal by Girard-Spasokukotsky.

TASK number 23.

 In the children's surgery department entered the child of 5 years with a diagnosis of "left-sided inguinal hernia." On the operation it was revealed congenital inguinal hernia. Specify the type of hernia (direct or oblique), especially hernia repair in congenital inguinal hernia. Imagine scheme on plastic Krasnobaeva.

TASK number 24.

 When surgery for inguinal hernia was found "sliding inguinal hernia." Specify the bodies that may participate in the formation of a sliding hernia. What are the features of hernia repair hernias when moving? Imagine scheme plastic inguinal canal on Kimbarovskomu.

TASK number 25.

 On examination, the patient was found in an oval-shaped protrusion pahovo- femoral region. What kind of hernia. Specify the features of inguinal and femoral hernias. Imagine a schematic surgical approaches in the inguinal and femoral hernias.

TASK number 26.

 The surgery department received the patient with a diagnosis of "Left-sided femoral hernia." Enter through some anatomical education under occlusive disease often go femoral hernia? Name the wall of the femoral canal, the inner and outer rings of the femoral.

TASK number 27.

The surgical clinic patient was admitted with right femoral hernia. During hernia repair had a strong bleeding. Explain what a "corona mortis". Imagine schematically plastic femoral channel and Bassini Rudge-Parlavechcho. "

TASK number 28.

 The surgical department enrolled patients with umbilical hernia abdomen. What are the stages of operation - hernia repair and imagine schematically plastic umbilical ring by Lexer, Sapezhko, Mayo.

TASK number 29.

 The patient entered the surgical department with a hernia the white line of the abdomen. What are the weaknesses of the white line of the abdomen, the operation steps hernia repair and plastic linea alba.

TASK number 30.

 The surgical clinic enrolled patients with herniated lumbar region. What are weaknesses in the lumbar region through which the hernia can come and stages of hernia repair operations at the lumbar hernia.

Operations in the abdominal cavity (OOBP)

TASK number 1.

Patient M, 66 years old, was taken to the surgical department with a diagnosis of "acute small bowel obstruction." Conservative treatment was ineffective. At laparotomy found infringement of a small section of the edge of the wall protivobryzheechnogo jejunum at 2 lumbar vertebrae in the lower duodenal recess. Define this pathological process. What are the acute surgical diseases of the upper part of the floor of the abdominal cavity can simulate the pathological process

TASK number 2.

Patient N., 35 years old, as a complication destructive appendicitis in the right mesenteric sinus accumulated exudate. Name of the sinus wall. Can the spread of exudate from the sinuses to the left and the pelvic cavity

TASK number 3.

The patient as a result of insolvency suture after suturing the wounds of the small intestine was formed mezhkishechny abscess broke into the left mesenteric sinus. Specify the possible pathways of purulent exudate.

TASK number 4.

Patients with 67 years at laparotomy for "acute abdomen" found necrosis of the ileum, the ileocecal angle, blind and ascending colon. Thromboembolism some arteries and at what level led to necrosis of the intestine within the specified limits

TASK number 5.

The patient entered the surgical department A., 70 years old. The diagnosis of "acute abdomen". At audit ascertained abdominal thrombosis inferior mesenteric artery. In some parts of the colon violated circulation

TASK number 6.

When after appendectomy incision of parietal peritoneum surgeon I discovered that the gut is adjacent to the wound with a large number of stuffing processes, arranged in two rows. What intestine adjacent to the wound in some cases it is possible this situation organ

TASK number 7.

Patient C., 16 years old, for acute appendicitis is made variable rocker right-oblique cut. There were considerable difficulties finding the appendix. At what position this body can take place such difficulties. What should be done in such a situation for the isolation of the appendix?

TASK number 8.

Patient I., aged 17, for acute appendicitis incision is made on the NM Volkovich-P. I. Dyakonov. When selecting the wound cecum with vermiform appendix latter was unchanged. Ileum was examined at a distance of 1 m from the ileocecal angle. What disease should be excluded or confirmed in this situation

TASK number 9.

Patient A., 47 years, surgery for acute intestinal obstruction is detected protivobryzheechnogo cord from the edge of the ileum 50 cm from the ileocecal angle to the navel. Name one type of partial return of the yolk duct that caused an acute intestinal obstruction. What tactics surgeon circulatory disorders of the gut is not?

TASK number 10.

The surgical department acted M., 32 years old, with a penetrating stab wound of the abdomen at the midline, 4 cm from the navel down. With a view to the inspection of the abdominal cavity is made of medium-midline laparotomy. In the abdomen revealed a small amount of blood, and between the loops of the small intestine - the contents. Explain the sequence of revision of the abdominal cavity. What guidelines will be in abdominal surgery for revision

TASK number 11.

The patient entered the surgical department 30 minutes after receipt of blunt abdominal trauma. Produced laparotomy. When the audit found abdominal rupture of the small intestine at a distance of 60 cm from the duodenal-lean bend. Explain tactics surgeon.

TASK number 12.

Patients with 42 years, in order to remove the foreign body is made of the small intestine enterotomy section of intestine longitudinal length of 2.5 cm. After removing the foreign body the surgeon proceeded to wound closure. In what direction should be sutured wound ulcers What the surgeon will use sutures

TASK number 13.

When suturing incised wounds of the small intestine, the surgeon uses suture VP Mateshuka. What is this intestinal seam

TASK number 14.

In the surgical department went N., 42 years old, with a penetrating stab wound of the abdomen in the epigastric area. Produced upper midline laparotomy. When auditing abdominal wound was found on the anterior wall of the gastric cardia and border pyloric size 1,5 × 0,3 cm. What type of surgical patient admission shows. What is the operational reception?

         TASK number 15.

In the surgical department went K., 25 years old, with the blade penetrating wound of the abdomen after 1 h after injury. Made of medium - median laparotomy. On examination of the small intestine at a distance of 80 cm from the duodenal-skinny bending Treitz ligament was found incised wound longitudinal front wall of the intestine close to the edge protivobryzheechnomu of 2 × 0,5 cm. What is the volume of surgical intervention

TASK number 16.

The patient entered the surgical department B., 37 years old, with blunt abdominal trauma. Made laparotomy. At audit of the abdominal cavity revealed a large amount of blood separation mesentery over 15 cm. Explain the steps of the surgeon.

TASK number 17.

The patient with typhoid on the testimony of "acute abdomen" laparotomy. When auditing the abdomen revealed an ulcer diameter of 0.3 cm terminal ileum 20 cm from the ileocecal angle. What tactics of the surgeon and surgical technique

TASK number 18.

Patient M., 55 years after resection of the small intestine, and imposing enteroenteroanastomosis "end to end" developed mechanical intestinal obstruction due to cicatricial stenosis of the anastomosis. Repeat the operation. Explain how to avoid cicatricial stenosis at the anastomosis "end to end"

TASK number 19.

Patient K., 18 years old, perform appendectomy. Online access - an oblique section through a variable rocker N. M.Volkovichu-P. I. Dyakonov. By laparotomic wound adjoins the wall of the colon. On examination of the colon surgeon drew attention to the large number of packing processes. Napkin in the clamp Mikulic he took the part of the colon to the left. Specify which department of the colon adjacent to the laparotomic wound. Where can reside the cecum with the vermiform appendage?

TASK number 20.

After a "classical" appendectomy patient's iliac process discovered Meckel's diverticulum. What should a surgeon in this situation?

TASK number 21.

Patient C., 67 years old, resection of the transverse colon. Impose intestinal anastomosis. Postoperatively, the patient appeared infringement of the greater omentum in the anastomosis. What stage bowel resection is not performed

TASK number 22.

The patient was assessed unnatural anus by a process Maidla. What is the purpose of a "spur"?

TASK number 23.

Patient X., 56 years old, is sutured perforated ulcer of the anterior wall of the stomach. In some cases, this shows operational welcome peritonization Explain the need for the seam line of the greater omentum flap "on the leg." In what situation is a gastrectomy?

TASK number 24.

When the surgeon uses a left-handed gastrostomy transrectal incision. When dissection of the parietal peritoneum in the top right corner of the wound into the pleural cavity began to enter the air pneumothorax. How is the prevention of this complication?

TASK number 25.

In the therapeutic clinic enrolled patients diagnosed with "cirrhosis." The examination revealed the patient and other diseases - "hemorrhoids." Name the path of the venous outflow from the rectum. Explain the cause of hemorrhoids.

TASK number 26.

One of the stages gastrostomy, such as Witzel in the modification of hoernesite and Ho Dac Di, is gastropexy. Explain the nature and purpose of this technique.

TASK number 27.

Very weak patients scar pyloric stenosis surgeon performs back retrocolic gastroenteroanastomosis on Gakkeru - Petersen. How long have used a loop of jejunum in which direction the anastomosis is applied?

TASK number 28.

Patients with 38 years in complicated duodenal ulcer is made selective vagotomy in combination with draining the stomach operation to Finney. Explain the purpose of the surgery.

TASK number 29.

During cholecystectomy, due to rupture of the liver, there was bleeding. What techniques to provide temporary hemostasis. At what time can apply a temporary stop bleeding with the use of these techniques.

TASK number 30.

In a hospital patient 3, 43, revealed portal hypertension. Which of endovascular research the most safe and informative for establishing the level of the blockade of the portal blood flow and a decision on the method of surgical treatment?

TASK number 31.

The Department of Surgery of portal hypertension enrolled patients with esophageal-gastric bleeding submucosal venous plexus esophagogastric junction. Call one of the conservative methods such stop bleeding.

TASK number 32.

Patient K., 54 years, cirrhosis of the liver. Against the background of growing phenomenon of conservative therapy of portal hypertension bleeding submucosal venous plexus esophagogastric junction. Which of surgical interventions more efficiently and effectively to reduce the pressure in the portal vein?

TASK number 33.

Patient N., 44 years old, diagnosed with acute destructive pancreatitis with peritonitis phenomenon. What are the objectives surgery in this disease.

TASK number 34.

Patient N., 44 years old, with acute pancreatitis is made upper midline laparotomy. Which of the approaches into the packing bag is the treatment of choice for acute pancreatitis. How can the external drainage and insulation from the free omental abdominal cavity?

TASK number 35.

The patient D., 45 years, acute cholecystitis. Made quick access to gallbladder SP Fedorov. Discovered pronounced adhesions in the gallbladder and liver-duodenal ligament. What a way to use cholecystectomy surgery? Why? What are the disadvantages of this method?

TASK number 36.

One of the serious complications after cholecystectomy is jaundice. Name one of the technical errors, which is the cause of this complication. What forms of bile diversion may be used to eliminate bile hypertension in such cases?

TASK number 37.

Intraoperative cholangiography after cholecystectomy allowed to establish scarry stenosis of the terminal part of the common bile duct, pancreatic and hepatic ampoule length of more than 2 cm. What method of drainage of the extrahepatic biliary tract, which should be used in this situation. What operation is shown at cicatricial stenosis lesser extent?

TASK number 38.

The literature suggests that repeated operations on the biliary tract after cholecystectomy 8-10 times more often accompanied by complications damage extrahepatic bile ducts, blood vessels and adjacent to the zone of operations of the abdominal cavity. Explain what determines the risk of reoperation after cholecystectomy.

TASK number 39.

The surgery department received the patient O., 66 years old, with obstructive jaundice and cholangitis complicated by renal failure. On palpation the abdomen is determined by an enlarged, painful gall bladder. What method of drainage of the bile ducts show this patient?

TASK number 40.

Patient I., 11 years after splenoportography pronounced pale skin, rapid pulse, dizziness, drop in blood pressure. For a serious complication of these symptoms indicate. How can I reduce the risk of its occurrence.

TASK number 41.

K. Masha, 9 years old, about the idiopathic thrombocytopenic purpura perform splenectomy. Explain why the gate of the spleen in the splenic artery and vein is not advisable to impose a hemostat.

TASK number 42.

 The surgical department enrolled patients diagnosed with "acute intestinal obstruction." During laparotomy, when the audit bowel diagnosis was clarified: "Thrombosis of the inferior mesenteric artery." Specify the intestine, which disrupted the blood supply, envelope bowel necrosis.

TASK number 43.

 The surgical clinic enrolled patients diagnosed with "perforated ulcer of the stomach." During the laparotomy and inspection of the abdominal cavity in the abdomen stomach contents were found. Perforated hole found on the rear wall of the stomach. Specify anatomical education, which is poured out the contents of the stomach. What are the intraperitoneal access for inspection of education? Why has not got the stomach contents into the abdominal cavity?

TASK number 44.

 The surgical clinic the patient was transferred from the gynecological department, where she was a week ago had an operation on the gap ovarian cysts. Surgeons discovered during laparotomy subdiaphragmatic abscess on the right. Explain how the infection could get into the subphrenic space. Why abscess arose to the right instead of the left?

TASK number 45.

 After a road accident in the surgical department taken ill with suspected internal bleeding. During abdominal laparotomy to detect blood. What are the major blood vessels may be damaged and their location? Which anatomical structures in the abdomen is necessary to examine the series to determine the damaged vessel?

TASK number 46.

The surgical department enrolled patients diagnosed with "acute intestinal obstruction." After opening the abdominal cavity revealed necrotizing portion of the small intestine length 5O cm. Specify the length of the section of bowel to be resected, stages of bowel resection, type of anastomosis and the stacking order of intestinal sutures.

TASK number 47.

 The oncology department did patients with complete obstruction of the esophagus as a result of compression of the tumor. Specify which palliative surgery must be performed on the stomach. What kinds of operations there? Describe the main stages of the operation.

TASK number 48.

 The oncology department patients with cancer of the stomach pyloric made palliative operation. Specify options for the operation and the stacking order of intestinal sutures.

TASK number 49.

 After a car accident brought the victim with suspected damage to the abdominal organs. At laparotomy found a gap transverse colon. The patient underwent resection of the colon area. Specify the stages of the operation - a resection of the colon, type of anastomosis and the stacking order of intestinal sutures in the colon.

TASK number 50.

 From drug treatment clinic in the surgical department moved patient with esophageal bleeding. When endoscopy revealed esophageal veins. On examination the patient was found enlarged liver. Explain the cause of bleeding. What are the different types of vascular anastomoses, and where they are located?

TASK number 51.

 The oncology department patients operated on for cancer of the cecum. What are the vessels that need to tie up with the resection of the department. What type of anastomosis resection need to make and what is the procedure for imposition of intestinal sutures when applying this anastomosis?

TASK number 52.

 The surgical department enrolled patients with gastric bleeding. The patient for many years suffered from a stomach ulcer. It is recommended to perform the operation "gastric resection Billroth-II, modification Hofmeister-Finsterer." What are the stages of operation, type of anastomosis and the stacking order of intestinal sutures in this type of anastomosis.

TASK number 53.

 The patient entered the surgical department with a wound to the liver. After laparotomy set produced liver injury with damage to large vessel. Name: 1) vessels supplying the liver; 2) their localization; 3) methods of temporarily stopping the bleeding; 4) The hemostatic seams on the liver.

TASK number 54.

 The surgical department enrolled patients with hepatic disease. In a study of liver abscess was detected within 6.7 segments (right lateral sector). Imagine scheme segmental structure of the liver by Quinn. What Glisson triad and its location.

TASK number 55.

 The surgical department delivered to the patient with a diagnosis of "Thrombosis of the superior mesenteric artery." Name of the small and large intestine, which can be impaired blood supply.

TASK number 56.

 The patient after the operation - appendectomy formed mezhkishechny abscess with pus breakthrough in the left mesenteric sinus. Specify the possible pathways of burrowing pus.

TASK number 57.

 In the surgical ward after blunt abdominal trauma enrolled patients with fecal fistula in the right lumbar region. Symptoms of peritoneal injury absent. Which department intestine could be hurt? How does this injury was not penetrating into the abdominal cavity?

TASK number 58.

The surgical ward was taken to the victim with a closed road abdominal trauma. According to the patient's midline laparotomy was performed. When auditing abdominal lesions were found. When auditing the right side of the channel and the right mesenteric sinus was found extensive retroperitoneal hematoma. Specify the anatomical structures that form the right side channel and mesenteric sinus. On a large vessel damage can be thought of? Which topographic anatomical layers of the accumulated blood, which shines through the back of the parietal peritoneum?

TASK number 59.

 The surgical department enrolled patients with penetrating abdominal wounds. At audit of the abdominal cavity revealed a wound descending part of the colon 2 cm. How to restore the integrity of the intestinal wall? Describe the sequence and technique of this operation?

TASK number 60.

The surgical department enrolled patients diagnosed with "acute appendicitis". After laparotomy was found retrotsekalnoe location of the appendix. What kind of operation it is necessary to perform? How is it different from conventional surgery? Call options for the location of the appendix cecum.

TASK number 61.

 The surgical department delivered to the patient with a penetrating wound to the abdomen. Wound size is 3 cm in the right hypochondrium. At audit of the abdominal cavity revealed damage to the portal vein. Select from the merger of some veins formed gate Vienna, where and with what anatomical structures it touches?

TASK number 61.

 The clinic ambulance brought the patient with a diagnosis of "acute pancreatitis". The autopsy confirmed the diagnosis of the abdominal cavity. What intraperitoneal accesses to the pancreas. What are the major trunk vessels are adjacent to it?

TASK number 62.

 The surgical department enrolled patients diagnosed with "cholecystitis". The age of patients 70 years of age. The patient's condition serious. What you wish to do such a patient? What kinds of operations there? Specify the projection of the gall bladder to the anterior abdominal wall, surgical approaches and the stages of the operation.

TASK number 63.

 The surgical department enrolled patients with suspected cholecystitis. Laparotomy and audit gallbladder allowed to deliver a more accurate diagnosis, "Phlegmonous cholecystitis". Carried out an operation - cholecystectomy. What types of cholecystectomy and stages of operations. What elements form a triangle Kahlo and what does this triangle to the operation of cholecystectomy?

TASK number 64.

 The surgical clinic enrolled patients diagnosed with "Gallstones". If additional studies (cholangiography) found that the stone is located in the major duodenal papilla. What than are represented bile duct, which ducts open into the duodenum, in which the department is a large intestine papilla?

TASK number 65.

 The surgical department enrolled patients diagnosed with "ulcer 12 duodenal ulcer with penetration in the pancreas." What parts of 12 duodenal ulcer, their attitude to the peritoneum. Which parts of the gut are more in contact with the pancreas? Specify, what agencies contact 12 duodenal ulcer.

TASK number 66.

 The surgical department enrolled patients diagnosed with "perforated ulcer of descending part of duodenum 12." As a result, he developed cellulitis. Specify the intra-operative approaches to the duodenum 12, the spread of pus.

TASK number 67.

 The surgical hospital delivered the baby with a mechanical form of jaundice. The examination revealed atresia of the common bile duct. Specify what represented bile duct and what types of anastomoses can be done for this pathology.

TASK number 68.

 The surgical clinic enrolled patients diagnosed with "Splenomegaly". Recommended operation - splenectomy. What prompt access the operations in the spleen. What blood vessels to be treated when this operation?

TASK number 69.

 The surgical clinic enrolled patients with the diagnosis "stomach ulcer". Performed reconstructive surgery combined with vagotomy. What types of vagotomy. Which of them is more often used in the clinic, and why?

TASK number 70.

 The oncology department did patients diagnosed with "Cancer rectosigmoid department." The patient has the phenomenon of obstruction. The examination showed a significant narrowing of the rectum. What, what operation should be performed in the sigmoid colon, the stages and types of operation. Specify the source of the blood supply of the sigmoid colon.

The topography of the retroperitoneum and pelvis (TZPMT)

TASK number 1.

 The surgical clinic enrolled patients diagnosed with "Phlegmon retroperitoneal space." Indicate if damaged public bodies could be given the pathological process. Specify cuts for opening the abscess retroperitoneal space.

OBJECTIVE number 2.

 At the urology department enrolled patients diagnosed with "Kidney stones". When radiography kidney stone found in the initial ureter. Name and describe quick access during this operation. Specify layered topography of the wound.

TASK number 3.

 The patient entered the surgical department for further diagnosis and treatment. For a long time, the patient noted malaise, subfebrile temperature. In history - specific infections. Locally, in the twelfth rib on the right is determined by the formation of ovoid shape. The inflammatory response is not expressed. When puncture obtained curdled mass. After some anatomical structures in the lumbar region entered pathological mass? What are the anatomical structures involved in the formation of a weak spot? Are there still weaknesses in the waist? Specify their location and boundaries.

TASK number 4.

 The hospital ambulance entered the victim with mercuric chloride poisoning. Patients underwent surgery - kidney decapsulation. Enter online access to the kidney, layered topography of the wound. What are the renal capsule must be cut?

TASK number 5.

 The surgical department enrolled patients diagnosed with "pyonephrosis." Carried out an operation - a nephrectomy. What are the stages of operation. What elements make up the leg of a kidney? In what order should handle these elements in nephrectomy? Which cellular spaces need to install drains?

TASK number 6.

 The surgical clinic patient admitted with a diagnosis of "renal colic". The patient was shown holding perirenal blockade. Describe the technique of performing this manipulation. Specify how many and which fiber layers are located in the retroperitoneal space.

TASK number 7.

 The urological clinic enrolled patients diagnosed with "Nephroptosis." Patients underwent surgery for Rivoiru. What are the basic principles of the operation. What else do you know the operation of fixing the kidneys when nephroptosis?

TASK number 8.

 The examination of the patient revealed anomalies of the kidney. Call kidney abnormalities in the number, shape and location.

TASK number 9.

The oncology department did patients diagnosed with "Cancer faterova papilla 12 duodenal ulcer." The patient complains of painful and frequent urination. What syntopy right kidney and explain this pathology.

TASK number 10.

 The urological clinic enrolled patients diagnosed with "kidney carbuncle". With the help of additional methods of research it found that the pathological focus is localized in the upper segment of the kidney. How many segments and what is a kidney? What forms the basis of the segmental structure of the kidney? What kind of operation it is necessary to perform in this pathology? What types of stitches applied to the wound kidney?

TASK number 11.

 In the gynecology department at the surgery on the uterus was damaged ureter. What parts and ureter, constriction, the principles of suturing the ureter. Which anatomical structures are adjacent to the ureter in the cavity of the female pelvic organs?

TASK number 12.

 The surgical department delivered damaged during road accidents with suspected internal abdominal bleeding. At laparotomy revealed extensive retroperitoneal hematoma. Which anatomical structures of the abdomen should be inspected, specify the location of hematoma localization in case of damage of the inferior mesenteric artery? What are the branches extending from the abdominal aorta.

TASK number 13.

 In the casualty department delivered the victim during the road accident. The examination was diagnosed: "fracture of the pelvis." Specify which bones, muscles and ligaments are involved in the formation of a small basin, which department the pelvic suffers most? How to explain a large hemorrhage in fractures of the pelvis? What are the stages of implementation intrapelvic blockade Shkolnikov-Selivanov.

TASK number 14.

 In the casualty department delivered to the patient with the diagnosis: "fracture of the pelvis with bladder injury." On the third day there was abscess predpuzyrnogo space. Specify with which cellular spaces reportedly predpuzyrnoe cellular spaces. What parietal cellular spaces are located in the pelvic cavity? Name the anterior abdominal wall incisions for dissection cellulitis, on the steps of creating counteropening Buyalsky Mak Uorteru.

TASK number 15.

 In the gynecology department of admissions with a diagnosis of "piosalpinks." Call, a tissue inflammation appeared in this disease? What do you know visceral cellular spaces of the pelvis? Specify the spread of pus from the pelvic cavity. Which sections and counteropening performed at phlegmons side cellular spaces?

TASK number 16.

 The proctology department enrolled patients with suspected disease of the colon. At manual examination - the rectum is fixed at the rear of the palpable elevation puncture obtained fetid pus. Specify which cellular spaces are located in this area? List incisions for dissection these ulcers cellular spaces.

TASK number 17.

 During a hysterectomy when uterine artery ligation was damaged right ureter. Specify the relationship between the ureter and uterine artery. Could it damage the ureter? What surgical approaches (bryushnostennye and vaginal), used in obstetrics and gynecology.

TASK number 18.

 The gynecology department patients with suspected delivered the diagnosis: "Ectopic pregnancy". It was decided to perform diagnostic puncture. Specify where in the first place should have collected blood at rupture of the fallopian tube? What course of peritoneal and fascial sheets in the pelvis. Through what tissue is necessary to hold the needle to perform diagnostic puncture?

TASK number 19.

 As a result of road accident the victim formed a laceration of the perineum between the front wall of the anus and the root of the scrotum. The presented pelvic and urogenital diaphragm which education could be damaged by a trauma?

TASK number 20.

 The proctology department entered the victim to damage rectal subperitoneal floor of the pelvis. What are the pelvic floor and the risk of damage.

TASK number 21

 At the clinic the doctor-neuropathologist patient appealed with complaints about sharp pain on the inside of the thigh, in the absence of any pathology in this area. The doctor recommended that the gynecologist. What guided the doctor, directing the patient to the gynecologist?

TASK number 22.

 In the gynecology department of admissions with a diagnosis of "Ectopic pregnancy". Puncture of the posterior vaginal fornix showed the presence of blood in the Douglas space. What are the stages in the operation of an ectopic pregnancy, which is necessary to tie up vessels and where?

TASK number 23.

 To anesthetize childbirth obstetrician decided to hold a blockade of the pudendal nerve. What are the external benchmarks should take a doctor to perform the pudendal blockade? In the event of purulent process in recto-ischial fossa where the pus can spread during sexual neurovascular bundle?

TASK number 24.

 The urological clinic enrolled patients with a foreign body in the urinary bladder. Recommended operation - high cross-section of the bladder. What are the stages of the operation and the order of suture on the bladder.

TASK number 25.

 Ambulance brought the patient diagnosed with "prostate adenoma, urinary retention." The top of the bladder is palpated at the level of the umbilical ring. The patient made a puncture of the bladder with the purpose of elimination of urine. Please indicate at what level should produce a puncture through which layers will pass the needle and there is a danger of damage to the peritoneum? What method of palpation of the prostate gland.

TASK number 26.

 At the urology department enrolled patients with perineal laceration and damage to the urethra. Name the urethra and equipment perform bladder catheterization.

TASK number 27.

 In the children's surgery department entered the child of 7 years with a diagnosis of "hydrocele." Name the operation, its stages and the topography of the wound. Why after the operation hydrocele does not recur?

TASK number 28.

 The woman - a cancer of the rectum at the transition ampullar department in the anal canal. The patient made an extended extirpation of the rectum along with the uterus and appendages, as well as fiber pelvis. What are the features of a lymph drainage from the rectum and internal genitalia forced surgeons to perform an extended operation?

TASK number 29.

At the urology department enrolled patients diagnosed with "Kidney disease". On radiographs determined concretions in the renal pelvis. What you wish to do? Who is online access, types and stages of the operation.

**Standards of answers**

Topography of the upper limb.

TASK number 1.

Internal fragment displaced upwards and backwards (traction advantage of the sternocleidomastoid muscle), the outer end moves downward and anteriorly (deltoid), subclavian artery is damaged, which is projected in the middle of the clavicle.

TASK number 2.

 There was damage to the axillary nerve bone fragments, as the nerve lies in the field of surgical neck shoulder subdeltoid cellular spaces.

TASK number 3.

The central fragment retracted and rotated outwards (the supraspinatus muscle - assigns, infraspinatus and teres minor - rotates). The distal fragment is displaced inside (reduction) (pectoralis major, broad dorsi, teres major muscle) may infringe the axillary nerve.

TASK number 4.

The deltoid region 4-coal hole in the scapular region in 3-coal hole in the lateral triangle of the neck in the course of the neurovascular bundle on the back of the shoulder along the radial nerve, the front surface of the shoulder along the neurovascular bundle shoulder ( median nerve, brachial artery, Vienna), under the pectoralis major muscle. The cut - along the front edge of the hair growth armpit or between the anterior and middle thirds of the width of the armpit.

TASK number 5.

Breast triangle corresponds to the contours of the pectoralis minor muscle. Breast triangle brachial plexus is represented by three beams (outer, inner, rear). Damaged rear beam, from which the beam is formed and axillary nerves.

TASK number 6.

1. At frostbite affected fingers of the left hand of I degree (at the time of inspection), as for the more severe characterized by a long latency period (up to several days, when there are bubbles and tissue necrosis).

A minimum of 5-7 days to determine the boundary of the pathological process.

2.Postepennoe warm fingers, the appointment of vasodilator drugs, rubbing with a clean cloth, cotton wool soaked in alcohol; followed by the appearance of the skin turns pink, can confirm the initial diagnosis.

3.Obem first aid:

gradual warming brush in water ranging from room temperature to body temperature for 20-30 minutes;

impose aseptic bandage with a thick layer of cotton wool;

holds a general warming (given hot tea, coffee, milk and food, heating by means of hot-water bottles, blankets);

introduced cardiovascular drugs, and antispasmodics;

sent to the emergency station or emergency room physician to address medical emergencies.

Therapeutic measures in hospital

The hospital administered antibiotics, vasodilators, infusion therapy (reopoligljukin, glucose solution), anticoagulants to clarify the depth of frostbite. When I-II degree frostbite, there is complete regeneration of the skin. Deeper damage requiring surgery (necrectomy, skin grafts, rehabilitation measures).

PROBLEM № 7. The blood supply due to scapular anastomosis: top - from the system of the axillary artery (transverse cervical artery, the artery transverse blades); from below - from the system of the axillary artery (the artery surrounding the blade, rear and front arteries surrounding the humerus).

TASK number 8.

The cut - along the front edge of the hair growth armpit or between the anterior and middle thirds of the width of the armpit. Axillary artery is surrounded laterally median, musculocutaneous nerve; medially - elbow, internal cutaneous nerve of the forearm and shoulder; Rear - radial and axillary nerves.

PROBLEM № 9. Top: deep artery of arm (median and radial communicating artery), the upper and lower elbow communicating artery; bottom: return (radiation, interosseous, front and rear elbow).

TASK number 10.

Pressed against the bones of the radial nerve in the middle third of the shoulder.

PROBLEM № 11. In the first case, the radial nerve to infringe upon the fragments of the humerus, as in this area it lies directly on the bone. The second victim is no infringement. On the shoulder two neurovascular front - the median nerve, brachial artery, and Vienna; Flat line - from the top of the armpit to the middle of the cubital fossa; Rear - radial nerve, deep artery and Vienna shoulder; Flat line - from the middle of the posterior margin of the deltoid muscle of the lateral furrow down the shoulder.

TASK number 12.

Front and rear fascial and muscular shoulder bed. NVB front bed - brachial artery, Vienna, and the median nerve; rear bed - radial nerve, deep artery and Vienna shoulder. Phlegmon front bed opened two parallel slits on both sides of the biceps. Phlegmon rear bed - two cuts on the back of the shoulder.

TASK number 13.

Steps: 1. Dissection of the skin, subcutaneous fat, superficial fascia; 2. Dissection of muscles; 3. Dissection of the periosteum; 4. The intersection of the bone; 5. Ligation of vessels; 6. Treatment of nerve; 7. Closure of the wound; The length of the flaps is equal to the diameter of the limb at the level of amputation, plus 1/6 the diameter. The length is equal to 2/3 of the front flap, rear flap - 1/3. Treat vessels: brachial artery, deep artery of the shoulder; treated middle (front), beam (rear), ulnar (medial), nerves, skin and muscle nerve (laterally), cutaneous nerves: internal cutaneous nerve of the forearm and shoulder (medially).

PROBLEM № 14. Damage to the ulnar nerve, which lies in the ulnar groove between the medial epicondyle of the humerus and the olecranon of the ulna.

PROBLEM № 15. Up - to the rear bed of the shoulder along the radial nerve and radial arteries and veins in the front bed of the shoulder - in the course of the median nerve, the brachial artery and vein. Down and laterally - in the course of the lateral neurovascular forearm (superficial branch of the radial nerve, radial artery, Vienna); in the medial region of the forward bed forearm arm - along the ulnar artery and vein; in the front region of the forward bed forearm - in the course of the median nerve in the forearm rear bed - through the channel instep.

PROBLEM № 16. Puncture the elbow - vkoly between the olecranon and the outer epicondyle over the shoulder of the radial head. Upper joint inversion punktirujut over the top of the olecranon and down front.

Opening the elbow with one or two longitudinal slits in the middle of the distance between the olecranon and the lateral epicondyle of the humerus. The incision on the medial margin of the olecranon is dangerous, as it can be damaged by the ulnar nerve.

PROBLEM № 17. Collaterals top - communicating radial artery and the mean of the deep artery of the arm communicating upper and lower ulnar artery; bottom - return: radiation, intercostals, anterior and posterior ulnar artery.

TASK number 18.

Damaged soft tissue: skin, subcutaneous fat, fascia, muscles - flexors, surface vessels: the superficial veins on the outside - the radial artery, and Vienna, inside - the ulnar artery and Vienna; It may be damaged, and the median nerve.

TASK number 19.

Front (flexor muscle and proniruyuschie), back (extensor muscles and supiniruet), outside (shoulder-arm radial and radial wrist extensors) fascial-muscle bed.

The projection of the outside of the neurovascular bundle (superficial branch of the radial nerve, radial artery and Vienna): proximal - middle of the cubital fossa, distal - pulse point or 0.5 cm medially from the styloid process of the radius. The projection of internal neurovascular bundle (ulnar artery, Vienna, nerve): proximal - internal epicondyle shoulder distally - pisiform bone.

TASK number 20.

Damage (compression) deep branch of the radial nerve. Do not damaged superficial branch of the radial nerve.

TASK number 21.

This complication is due to compression of the radial nerve in plechemyshechnom channel, followed adromia rear musculo-fascial bed forearm in particular, the long extensor of the thumb and index finger extensor.

TASK number 22.

For the full anatomy of the radial nerve gap.

TASK number 23.

Interosseous hole through the bottom surface of the forearm to the back, in the course of the median nerve, the anterior interosseous neurovascular bundle on the front surface of the forearm, along the carpal tunnel on the palmar surface of the brush. Incisions - on the outer and inner surfaces of the lower third of the forearm. Drainage - between the square pronator and flexor digitorum deep, long flexor of the thumb.

PROBLEM № 24. Lateral bed (bed elevation muscles of the thumb), the average, medial (bed elevation muscles of the fifth finger).

Cellular spaces glance: the lateral, medial, median (subcutaneous, subgaleal, podsuhozhilnoe).

Pathways pus: through the carpal tunnel in the forearm, commissural through holes in the deep layers of the palm, in the course of worm-like muscles and blood vessels on the back surface of the brush.

The cuts: in the elevation muscles of the thumb - when phlegmons thenar, in the elevation of the fifth finger - when phlegmons hypothenar. The middle box is opened longitudinal section between the projections 3-4 metacarpals. Remembering the restricted area for the surgeon (the proximal third of the rise of the first finger).

TASK number 25.

Above and subgaleal, podsuhozhilnaya cellulitis (middle box). Phlegmon lateral and medial palm sheaths. Surface podfastsialnaya cellulitis and back of the hand. Damaged superficial palmar arterial arch.

PROBLEM № 26. Damaged median nerve that innervate this muscle. "Forbidden Zone" - a place of origin of a branch of the median nerve to the muscles of the elevation of the first finger. Projected in the medial w / h the elevation muscles of the thumb.

PROBLEM № 27. bursa palm: radiation (including synovial sheath of a long flexor of the thumb). Elbow (tendon of the fifth finger and the proximal tendon II, III, IV fingers). In 10% of cases of ulnar and radial bags communicate with each other in the field of cellular spaces Pirogov-Parona. Incisions - in elevation muscles first and fifth fingers. Doubles section (with the lateral and medial sides - in n / forearm 3) in the area of ​​space Pirogov-Parona.

TASK number 28.

Whitlow: intradermal, subcutaneous, tenosynovitis II, III, IV fingers, tenosynovitis I, V finger, joint, bone, pandaktilit. In the nail phalanx possible bone felon, as fibrotic tissue jumpers go vertically from the papillary layer of the skin to the periosteum. Anesthesia Oberst-Lukashevich and Brown-Usoltseva. Incisions are paired in the middle of the side surfaces of the phalanges, without dissection in the interphalangeal joints.

PROBLEM № 29. A carpal tunnel passes 9 flexor tendons (4 surface, 4 deep flexors of the fingers and the long flexor of the thumb) and the median nerve. Disrupted innervation of muscles of the elevation of the first finger except the adductor muscle of the thumb (ulnar nerve). Seam epineural, comparison of the central and peripheral ends with diastasis to 1 mm. Term imposing 3-4 weeks - 6 months.

PROBLEM № 30. Pathways pus: 1. Through the carpal tunnel - on his forearm; 2. In the course of worm-shaped muscles and vessels - on the back surface of the brush; 3. A commissural holes - subgaleal in space; 4. In the lateral and medial bed palm. In podsuhozhilnom space located deep palmar arterial arch and the deep branch of the ulnar nerve.

PROBLEM № 31. Bone felon. In the course of the contents of the fistula is allocated under the skin. Klyushkoobraznye paired cuts to the bone, drain.

TASK number 32.

Dislocation of the shoulder joint refers to urgent surgery. Delaying the reduction could lead to the infringement of the axillary nerve, which goes around the neck shoulder and other neurovascular structures axilla.

PROBLEM № 33. median nerve is damaged. It should be sutured nerve.

PROBLEM № 34. damaged radial nerve and the deep artery of arm that held together in a helical channel. Tactics of the surgeon is to stop the bleeding and suturing of the nerve.

PROBLEM № 35. The growth of callus, apparently compresses the radial nerve or nerve enveloped callus that caused such symptoms. In the absence of effect of conservative treatment of patients with operative treatment.

TASK number 36.

When purulent inflammation of one thumb may spread purulent exudate into a deep cellular spaces of the forearm (Pirogov Paron-). It is necessary to make a cut 8-10 cm long on the palmar surface of the forearm, 2 cm above the styloid process of the radius. On the ulnar side create counteropening.

PROBLEM № 37. Another injured deep palmar arch, formed mainly ulnar artery, but restrict this artery ligation alone is not enough. Bleeding can be resumed from the deep branch of the radial artery. It should tie her.

TASK number 38.

Injured superficial palmar arch, formed mainly radial artery, which should tie. Perhaps there is a need in the dressing and superficial branch of ulnar artery.

TASK number 39.

 At the turn of the two forearm bones can damage the ulnar, radial and median nerves.

TASK number 40.

 Infiltration is located under the palmar aponeurosis. In the case of further development of the possible swelling of the back of the hand. The process is in a confined space. Infiltrate compresses nerve endings.

TASK number 41.

 The patient developed a V-shaped phlegmon as synovial vagina V 1 and the fingers are arranged on the forearm, which is closely in contact with each other.

TASK number 42.

 Patient phlegmon cellular spaces thenar. It is necessary to carry out drainage of the inflammatory focus wide cut along the outer edge of the elevation muscles of the thumb. Section of skin folds to the base of the thenar impossible to draw a sufficiently broad view of the risk of damage to the muscle branches of the median nerve in the restricted area.

TASK number 43.

 When festering blisters due to structural features of the subcutaneous tissue exudates can penetrate through the holes in the commissural subgaleal middle space to the development of cellulitis brush that takes place in this particular case. You must spend 2 cut in the palm of skin folds on the border elevations muscles of the thumb and little finger given "exclusion zone", connecting them stupidly under aponeurosis, and then drain the space Pirogov Paron, if there is swelling and pain in the distal third of the forearm.

TASK number 44.

 The patient has a V tenosynovitis thumb. It may be complicated tendobursitom palm, followed by the spread of exudate on the forearm into the space Pirogov-Parona since that flexor tendon synovial sheath V fingers communicates with the ulnar synovial sack. The patient showed an urgent radical surgery.

TASK number 45.

 posterior-medial furrow extends the elbow ulnar nerve injury it is highly undesirable.

TASK number 46.

 Since the intervention ends with ankylosis need to keep growing zone femur and tibia, which later will ensure the growth of limbs in general.

TASK number 47.

 To avoid damage to the subclavian vein, the brachial plexus and subclavian artery.

TASK number 48.

The distal fragment is displaced downward due to the reduction of the deltoid muscle, and the central -kverhu backwards under the sternocleidomastoid muscle.

TASK number 49.

 If the lateral displacement of the fragment of the clavicle may be compression of the subclavian brachial plexus and subclavian damage to veins and arteries.

TASK number 50.

 1 method of Pirogov - on the leading edge of the hair growth axilla;

 2 on the medial edge of coracobrachialis muscle;

 3 parallel to the lower edge of the pectoralis major muscle on the border of the anterior and middle thirds of the width of the armpit.

TASK number 51.

 Lateral group of lymph nodes located on the lateral wall of the axillary cavity medial to the neurovascular bundle; center - the center of the base of the axillary cavity, along the axillary vein; Medial - on the serratus anterior during the lateral thoracic artery and vein; back - during the subscapular artery and vein; apical - in breast-clavicular triangle along the axillary vein.

TASK number 52.

 The medial side of the need to shift the medial cord of the brachial plexus and axillary vein in the lateral - lateral cord of the brachial plexus.

TASK number 53.

Anastomotic circle blades form suprascapular artery - from shchito-cervical trunk and the descending branch of the transverse cervical artery from the subclavian artery, which anastomoses with a branch of the subscapularis artery - an artery envelope blade of the axillary artery.

TASK number 54.

 When cellulitis axilla purulent streaks may be in the lateral triangle of the neck, the deltoid region, scapular region, the area of ​​the front of the shoulder, subpektoralnyh superficial or deep spaces of the chest wall.

TASK number 55.

1. The area of ​​contact between the articular surface of the humeral head and glenoid cavity of the blade is 3.5: 1 or 4: 1

2. The width of the capsule is non-uniform: in the upper thickened due to weave shoulder joint and ligaments and rostral-shoulder ligaments and greatly thinned in the anteromedial department respectively 2-3 times less strong

3. anteroinferior department capsule attached much

following surgical neck.

TASK number 56.

Developed atrophy of the deltoid muscle and the other components of the posterolateral humeral joint due to damage to the axillary nerve.

TASK number 57.

 Sources subdeltoid hematomas are the front and rear, envelopes humerus artery and vein.

TASK number 58.

 "Forbidden" zone corresponds to the place of the intersection of the rear edge of the deltoid muscle and the vertical line drawn from the acromion process of the scapula down to 6 cm from the acromion process.

Topography of the lower limb

TASK number 1.

Surface leaf gluteal fascia gives processes a large gluteal muscle, resulting in muscle represented by separate insulated muscle bundles. The inflammatory process is the limited nature of the infiltrates. Muscles are arranged in three layers. 1 layer - the gluteus maximus, the upper part of the gluteus medius muscle; 2 layer - medium gluteus, pear-shaped, twin muscle, internal obturator, square muscles; 3 layer - a small buttock, external sphincter. Innervation and blood supply - at the expense of the upper and lower gluteal neurovascular bundles.

TASK number 2.

 Cellulitis is located between the large gluteal muscles and the deep layer. Pathways: through the greater sciatic foramen - in the pelvis; through the lesser sciatic foramen - in ischiorectal hole; along the sciatic nerve - the rear of the thigh; along the branches of the obturator artery - in the medial fascial-muscular thighs case. The cut is carried out along the muscle fibers of the upper rear iliac spine to the greater trochanter.

TASK number 3.

Deep thigh cellulitis: podfastsialnye intermuscular, paraossalnye, paravasal, paraneural. Pathways: through the vascular lacuna in the pelvis; through the femoropopliteal channel in the popliteal fossa; along the vessels of the femoral artery in the medial thigh and rear bed. Sections of outer and inner edges of the rectus femoris.

TASK number 4.

 Damaged femoral artery and Vienna, which are located in the femoropopliteal artery channel which lies in front of the vein. The channel has three walls: the back - adductor magnus muscle, the front - internal vastus, medial - fibrous plate. In the course of this channel is reported from the front of the thigh popliteal fossa.

TASK number 5.

 Damaged femoral artery. Under occlusive disease located muscular and vascular lacuna. Through muscular lacuna out iliopsoas and the femoral nerve; through the vascular lacuna out of the femoral artery, and Vienna.

TASK number 6.

Rear fascial and muscular bed represented bicapital femoris, semitendinosus and semimembranosus muscles. In the course of the sciatic nerve purulent exudate can be distributed up - deep in the gluteal area and the pelvis, down - in the popliteal fossa. The cut line based on the projection of the sciatic nerve (from the middle of the distance between the ischial tuberosity and the greater trochanter to the middle of the popliteal fossa), retreated to the left side of 2 cm.

TASK number 7.

Internal fascial and muscular thighs represented bed resulting femoris (short, long, adductor magnus muscle, tender, a comb muscle). Fascial-muscular thighs bed - front (extensors), rear (flexors), internal (lead). The cut - medially 2 cm from the projection of the femoral artery (in the middle of the inguinal ligament - proximal, medial epicondyle of the femur - distally).

TASK number 8.

 Ulcer is located on the inside of the thigh in the small trochanter, which is attached iliopsoas muscle. A possible way for the spread of purulent exudate Case iliopsoas muscle-fascial in the inner thigh muscle bed, under the drip line head quadriceps.

TASK number 9.

 In the area of ​​the knee joint are arranged bags: nadchashechnaya, predchashechnaya (subcutaneous, podfastsialnaya, podsuhozhilnaya) podchashechnaya (surface and deep). Nadchashechnaya podsuhozhilnaya bag in the 85% reported from the front-upper synovial volvulus, therefore, the infection could get out of the bag into the joint cavity. The joint (synovial) capsule of the knee joint forms a 9 bloat synovium: anterior-upper (middle), anterior superior (outdoor and indoor), the lower front (outdoor and indoor), back-upper (outdoor and indoor), Posteroventral (external, internal). Puncture point: outside - at the upper edge of the patella and patellar middle with the outer and inner surfaces.

TASK number 10.

 Sections parapatellar at Textor.

Stages resection of the knee:

1. Horseshoe incision (by Textor) from the medial to the lateral epicondyle through the tibial tuberosity to the dissection of the soft tissues and the patellar tendon;

 2. Otseparovanie flap up and crossing the ligaments of the joint;

 3. Removal of the articular surface of the patella, and with his defeat - Remove completely;

 4. Remove the bag of the joint;

5. sawdust articular surfaces of the femur and tibia at the level of the condyles;

 6. Convergence and fixing the ends of bones with the help of stitches. Laying and fixation of the patella at the contact line of two bones;

7. Staple own patellar ligament;

8. The seams on the skin cast.

Resection of the knee joint in the root is carried out without opening the knee joint cavity. When this operation may damage the popliteal artery, which is fixed to the back of the bag of the knee joint.

TASK number 11.

 Pathways pus from the popliteal fossa:

1. Top - the rear bed of fascial and muscular thighs along the sciatic nerve;

2. In front of fascial and muscular through the thigh bed femoropopliteal channel campaign popliteal vessels;

3. In a deep fascial space of the lower leg along the tibial nerve and posterior tibial vessels;

4. In front of the bed of the extensor during the anterior tibial artery and the common peroneal nerve;

5. During tendon 2 femoris head on the outer side of the knee joint and the lower third of the thigh;

6. In the course of the popliteal muscle in the space between the soleus and gastrocnemius muscles;

7. Between the deep fascia of the leg and a piece of soleus muscle;

8. Under the superficial fascia piece of their own shin.

The topography of the neurovascular bundle from back to front: the tibial nerve, popliteal ene and popliteal artery (Neva).

Cut vertical okolosredinny popliteal fossa, or S-shaped.

TASK number 12.

 The wound is located at the bottom and laterally in the popliteal fossa. Common peroneal nerve is damaged.

TASK number 13.

 Fascial-muscular cases shin front (extensors), posterior (flexor), lateral. Neurovascular fascial Lodges: front - the deep peroneal nerve, anterior tibial artery, and Vienna; Rear - tibial nerve, posterior tibial artery, and Vienna; lateralnogo- peroneal artery and Vienna, superficial peroneal nerve. The cut - taking into account projections of the anterior tibial artery - from the middle of the distance between the head of the fibula and the tibial tuberosity (proximal) to the middle of the distance between the ankles to the dorsum of the foot (distal).

TASK number 14.

Rear fascial-muscular pouch shin presented: surface layer - gastrocnemius, soleus, plantaris muscle. The deep layer - popliteal muscle, flexor digitorum longus, zadnyaya- tibial, long flexor of the thumb. Neurovascular bundle: the tibial nerve, posterior tibial artery, and Vienna.

Pathways purulent exudate: upward - popliteal and ankle through the channel in the popliteal fossa, down - in the course of the neurovascular bundle through the medial malleolar, heel channels in the middle of the foot bed, in front of the interosseous lozhe- through the front opening. The cut in the middle third of the leg - 1-2 cm from the medial edge of the tibia. In the lower third of the leg - the side of the rear projection line of the neurovascular bundle (proximal - middle of the popliteal fossa, the distal midway between the Achilles tendon and the medial malleolus).

TASK number 15.

 The foot bed 3: medial, lateral, medial. NVB: laterally - external plantar nerve, artery, Vienna. Medially - internal plantar nerve, artery, Vienna.

 Pathways pus:

 1. Under the skin on the soles;

2. In the course of worm-like muscles in the interdigital spaces rear foot and toes;

3. vnutrilodyzhkovomu channel in the bed of deep muscle leg;

4. On the back surface of the foot during the deep plantar artery branches extending from the rear foot artery;

5. Melting intermuscular septa and the emergence of deep cellulitis spilled feet;

 6. Tenosynovitis I toe, pus can cause symptoms of suppurative arthritis of the ankle joint. Delorme incisions: median - the middle third of the line connecting point between the middle and inner third of the width of the heel with the first interdigital spaces; lateral - the middle third of the line connecting the center of the heel from III interdigital spaces.

TASK number 16.

On the rear of the foot along the worm-like muscles and the deep plantar arterial branches of branches extending from the dorsal artery of the foot. At the rear bed of the lower leg - heel and vnutrilodyzhkovy through channels along the tibial nerve and posterior tibial arteries and veins. Delorme incisions: median - the middle third of the line connecting point between the middle and inner third of the width of the heel with the first interdigital spaces; lateral - the middle third of the line connecting the center of the heel from III interdigital spaces.

TASK number 17.

 The projection of the femoral artery (line Ken): proksimalno- middle of the inguinal ligament, the medial epicondyle of the distal femur. Place artery ligation: it is desirable to lower a discharge of the deep femoral artery. Collateral circulation between the branches of the deep femoral artery (lateral and medial femoral envelopes, perforating 1,2,3) obturator circumflex iliac superficial and deep, the upper and lower gluteal artery, below - knee descending artery, a branch of the popliteal artery.

TASK number 18.

 The middle of the popliteal fossa. Layered topography of the wound: the skin, subcutaneous fat, superficial fascia, own fascia. The principle of a vascular seam Carrel: 3 taped overlap, gaps between the through taped seam sutured obvivnym by suture derzhalok.

TASK number 19.

 The projection line of the sciatic nerve: proksimalno- point on the boundary between the inner and middle thirds of a line drawn between the greater trochanter and the ischial tuberosity, distal - middle of the popliteal fossa. Layers: skin, subcutaneous fat, superficial fascia, own fascia. Epineural seam: cutting off the edges of the nerve until the grain and vnutristvolnogo bleeding, accurate comparison of cross-sectional nerve fixation with 2-4 epineural seams, while tightening the joint in order to avoid compression of the nerve bundles between the ends of nerve leave a distance of 1 mm.

TASK number 20.

Tibial nerve is damaged. Projection Line: proximal - middle of the popliteal fossa; distally - midway between the medial malleolus and the Achilles tendon.

TASK number 21.

 The operation - amputation of Sharpe. Amputation of the foot at the metatarsal bone with preservation of places of fixing tendons muscles (anterior and posterior tibial and peroneus longus). The wound is treated by open pit, followed by skin grafting. Stages of operation, while maintaining the skin: the cut and shearing of the rear flap and the delineation of the plantar flap; sawing metatarsal bones; the formation of the plantar flap; processing vessels, nerves; suturing wounds.

TASK number 22.

 The patient, in all probability, postinjection abscess must be opened purulent focus.

TASK number 23.

It Was: saphenous nerve crossed legs.

TASK number 24.

 In all likelihood, injured femoral artery. It is necessary to progressively extend the wound, apply parietal suture.

TASK number 25.

 The patient appeared traumatic blows. Not necessary to make a puncture of the knee joint.

TASK number 26.

 The patient deep vein thrombophlebitis of the lower limb. It is necessary to conservative treatment and subsequent surgery to remove varicose veins.

TASK number 27.

Perforating arteries often including 3 - 64% of the Q branch of the deep femoral artery: 1st - departs at the level of the lesser trochanter, 2nd - at the proximal end of the adductor longus muscle, the third - the continuation of the deep femoral artery. If damaged arteries gape due to fixation of the outer shell along the edges of the holes in the adductor tendons, through which they pass in the back area of ​​the thigh. The arteries pierce the tendon near the point of attachment to their rough lines the hip.

TASK number 28.

The gluteus maximus through the processes of the gluteal fascia is divided into chambers, thereby suppurative processes are limited, accompanied by considerable stress and severe tissue pain.

TASK number 29.

 1 vnetazovye upper and lower parts of the gluteal arteries short; the proximal ends of the arteries and cut into proper Subpiriforme holes, distal - in the thickness of the muscle. Gluteal artery are of the form "birchwood" short vnetazovy Department trunk line creeping branches

2 large number of anastomoses

3 hampered the search for the source of bleeding - gluteal vessels lie beneath the deep gluteal fascia plate in a large mass of muscle and loose fat inaccessible deep wound. When the failed attempt to hemostasis, the wound should be made on-line access to the NI Pirogov side wall of the pelvis and internal iliac artery bandage gluteal arteries are branches of the internal iliac.

TASK number 30.

The line connecting the anterior superior iliac spine to the tip of the buttock is slightly bent at the hip to hip. The tip of the greater trochanter is on the line Roser-Nelatona. When a femoral neck fracture and dislocation of the hip tip of the greater trochanter will be up from the line-Nelatona Roser.

TASK number 31.

 The first "weak" place of the capsule of the hip joint is in the low back department at the sciatic-femoral ligament, where there is a protrusion of the synovium and tendon passes the outer sphincter. Second - in the front section - the message the joint cavity with iliac-comb bag.

TASK number 32.

 Women have a wide pelvis, femoral ring formation of internal space or deep holes femoral wide. The width of the ring is the distance between the femoral lateral fascial sheath of the femoral vein and the medial ligament lacunar walls in women is 1.8 cm in men - 1.2 cm.

TASK number 33.

 Ring takes femoral medial third of the vascular lacuna. It is made fatty tissue and lymph node-H Rosenmüller. I.Pirogova femoral septum that separates the abdominal cavity from the hip part of the transverse fascia has holes, skipping the lymphatic vessels from the parietal peritoneum femoral ring corresponds to the femoral fossa. Lower down on the subcutaneous inguinal ligament has a slot bounded by the edge of the crescent-shaped fascia lata.

TASK number 34.

 The walls of the femoral canal: the front edge of the fascia lata -serpovidny superficial piece of fascia lata.

posteromedial - comb deep fascia is a sheet; lateral - fascial sheath of the femoral vein. When strangulated femoral hernia dissect the medial wall of the femoral ring - lacunary bunch.

TASK number 35.

 Gluteal fascia is superficial and deep sheets forming two bed. The bed surface is the gluteus maximus and the branches of the upper gluteal artery and vein. From the surface to the deep fascia sheet depart connective tissue septa separating the gluteus maximus on the isolated chamber.

TASK number 36.

 Through the muscle gap, along the psoas major muscle with the projection of protrusions on lateral half of the inguinal ligament.

Operations on vessels of extremities

TASK number 1

 When the surgeon tendon suture to close the wound must check the possibility of flexion and extension of the brush in full. Limited extension in this case indicate a shortening of the tendons due to strong tightening joints. It is necessary to loosen the joints and tendons to hold the plastic in order to prevent the development of flexion contracture and maintain the function of the hand.

TASK №2

No, wrong. If there is damage to the side of the vessel necessary to impose a vascular suture. Ligation of vessels at this level can lead to the death of the upper limbs, as collateral circulation between the artery surrounding the humerus and deep artery of the arm is not bad.

TASK number 3.

The projection of the femoral artery (line Ken): proksimalno- middle of the inguinal ligament, the medial epicondyle of the distal femur. Place artery ligation: it is desirable to lower a discharge of the deep femoral artery. Collateral circulation between the branches of the deep femoral artery (lateral and medial femoral envelopes, perforating 1,2,3) obturator circumflex iliac superficial and deep, the upper and lower gluteal artery, below - knee descending artery, a branch of the popliteal artery ..

TASK number 4.

The middle of the popliteal fossa. Layered topography of the wound: the skin, subcutaneous fat, superficial fascia, own fascia. The principle of a vascular seam Carrel: 3 taped overlap, gaps between the through taped seam sutured obvivnym by suture derzhalok.

TASK number 5.

It is advisable to tie up the dorsal artery of foot.

TASK number 6.

Superficial peroneal nerve is damaged.

TASK number 7.

It is necessary to tie an artery over.

TASK number 8.

The surgeon must make arteriotomy, remove the clot and impose a vascular suture appoint anticoagulants.

TASK number 9

functional insufficiency of collaterals in the popliteal artery ligation at this level. Because of the defect, and the impossibility of artery vascular suturing, the defect could replace autograft from the femoral vein.

TASK number 10

When indirect embolectomy retrograde blood clot removed from remote artery through superficial artery. The blood clot was removed from the popliteal artery Fogarty catheter has a balloon on the end, which is carried out through the posterior tibial artery is exposed in the medial malleolar channel.

TASK number 11

1 ligation of the artery in the wound;

2 dressing over, t. E. Above the wound.

TASK number 12

Initially, the artery is ligated proximal end of the superposition of two ligatures: central and peripheral. Peripheral ligature is applied at a distance of 0.5-1 cm from the end of the artery in order to avoid slipping due to pulsation of the central artery ligation. Peripheral ligature can be applied to the stitching artery wall and then tying

surgical site tufting ligature. Then artery ligated distal end of a ligature. To ensure the reliability of hemostasis, wound swab and dried 2-3 min., In the absence of bleeding, cut off the ends of the ligatures.

TASK number 13

Assistant anatomical tweezers holds the first node that it is not weakened as long as the surgeon will tie a second.

TASK number 14

The median as the middle third of the shoulder it is anterior to the brachial artery.

TASK number 15.

To artery walls when sewing eliminate screwing into the lumen of the outer shell to ensure athrombogenic vascular suture.

TASK number 16

1. convergence ends artery and fixing them in position

2. Transfer artery injury in a horizontal plane

3. reversing artery wall ends to match their inner shells "to sex intima" for athrombogenic vascular suture.

            4. rotatable artery axially suture

on three faces.

TASK number 17

The lack of branches, valves, smooth inner shell, hardly limited length, the ability to simulate different diameter.

TASK number 18.

Inferior epigastric artery - branch of the external iliac.

TASK number 19

When insolvency valves communicating veins of ligation is performed to correct abnormal reflux of blood from the deep veins of the lower leg to the surface.

TASK number 20.

It is necessary to tie up the anterior tibial artery in its middle third.

Operations on the tendons and nerves

TASK number 1.

The projection line of the sciatic nerve: proksimalno- point on the boundary between the inner and middle thirds of a line drawn between the greater trochanter and the ischial tuberosity, distal - middle of the popliteal fossa. Layers: skin, subcutaneous fat, superficial fascia, own fascia. Epineural seam: cutting off the edges of the nerve until the grain and vnutristvolnogo bleeding, accurate comparison of cross-sectional nerve fixation with 2-4 epineural seams, while tightening the joint in order to avoid compression of the nerve bundles between the ends of nerve leave a distance of 1 mm.

 TASK number 2.

 Tibial nerve is damaged. Projection Line: proximal - middle of the popliteal fossa; distally - midway between the medial malleolus and the Achilles tendon.

TASK number 3.

 Wounded lateral sural cutaneous nerve and the sural nerve.

TASK number 4.

It should be sanctioned "shoot seam" and the possible recovery of the synovial sheath.

TASK number 5.

For large defects manages to pull together the ends of nerve change in position of the limbs at the seam of the sciatic or median nerve - the limb is bent. When a seam of the ulnar and radial nerves - they are moved from the back to the front area. After neyrorafii limb is fixed in a position to give it a plaster cast for 3-4 weeks.

TASK number 6

Risk of damage to the tendon at the mesentery tenosynovitis and tendon sheath infection when subcutaneous felon.

TASK number 7

Vinyl chloride tube with lateral holes.

TASK number 8

 Curved or straight cut along the outer edge of the nail plate in the proximal direction.

TASK number 9

Perform two incisions 1-1.5 cm from the lateral edges of the nail plate in the proximal direction. Educated flap throws in the proximal side to its base. The detected necrotic tissue granulation and removed sharp spoon. In the case of the spread of pus under the nail

record of her, peeling pus, removed, and then remove the granulation. Under the flap is placed a strip of rubber glove and bandage.

TASK number 10

Trepanation nail on suppurative focus.

TASK number 11

Wedge excision of the nail on suppurative focus.

TASK number 12

Removal of the nail plate.

TASK number 13

 1 due to a high distribution of fluid pressure within the boundaries of synovial vagina, as well as the development of tissue edema

2 palpation accompanied by an increase of pressure in the synovial sheath

3 attempt especially extension movements results in a pressure increase in the synovial vagina

4 position of the finger flexion reflex provides a pressure drop in the synovial sheath and a decrease in pain.

TASK number 14

Distal - to the proximal half of the nail phalanx. Proximal - to the level of head of the metacarpal bone.

TASK number 15

 Joint capsule is taken in the fold, pulled her scissors and cuts.

TASK number 16

Apply 3-4 cm medial incision through all layers of the joint capsule to the 1 cm anterior to the medial epicondyle of the humerus. The bag is cut off at the point of its attachment to the block of the humerus. Through this incision is performed in the lateral side of the forceps and above the incision of 3-4 cm, penetrating into the joint cavity. Rear incision is made closer to the lateral epicondyle of the humerus; It is administered through the drainage tube to the posterolateral department joint cavity.

TASK number 17

Common peroneal. From the lateral parapatellar cut through the joint cavity forceps conduct which forms the protrusion of the soft tissue in the posterolateral joint department. This technique provides a shift to the common peroneal nerve and is the benchmark for application counteropening.

TASK № 18

The nerve is exposed above and below the scar, taking the rubber strip-taped and start to allocate it from the healthy divisions in the area of ​​the scar. The conductivity of the nerve is checked by electrophysiological methods.

TASK number 19

 "U" - shaped seams for epineural Nageotte. When applying these joints there is a danger in seam grab bundles of nerve fibers.

TASK number 20

Tendons are long and short extensor digitorum.

Operations on the joints and bones of the extremities;

Amputation and disarticulation

      TASK number 1.

 Steps:

1. Dissection of the skin, subcutaneous - fat, superficial fascia;

 2. Dissection of muscles;

3. Dissection of the periosteum;

4.Peresechenie bones;

 5. Ligation of vessels;

 6. Treatment of nerve;

7.ushivanie wounds; The length is equal to the diameter of the flap amputation level plus 1/6 diameter. The length of the front flap is equal to 2/3, 1/3 rear flap. Treat vessels: brachial artery, deep artery of the shoulder; treated middle (front), beam (rear), elbow

(medially), nerves, skin - muscle nerve (laterally), cutaneous nerves (internal cutaneous nerve of the forearm and shoulder).

       TASK number 2.

Select the level of amputation is done correctly, because the forearm can be used to generate bioelectric potentials of the prosthesis. You follow such principles of amputation in children, as the creation of an excess of soft tissue, muscle stitching - antagonists on sawdust bones with good intention. It does not respect the principle of the maximum preservation of the working surface, as a violation of the integrity of the skin on the lateral and medial surface of the forearm.

      TASK number 3.

   The operator had to truncate the forearm at different levels above the tendons of the muscles, to create an excess of soft tissue, because the uneven growth of bones and muscles over time will create an excess of bone and a conical stump. It is testimony to the narrow reamputatsii in this situation to truncate only the bones of the forearm above the severed muscles. Ulna truncate radiation above 0.5 - 1 cm.

        TASK number 4.

As a result of uneven growth paired bones in childhood is necessary to truncate them at a different level: the ulna by 0.5 - 1.0 cm above the beam. Muscles - antagonists must be stapled on sawdust bone with tension.

       TASK number 5.

During the processing of a large nerve trunk

(sciatic nerve) was crushing him, excessive trauma, stretching from circulatory disturbance. During the crosslinking of muscle - antagonists sciatic nerve could be pulled into the joint as a result of the low level of truncation. The nature of reoperation should be narrow statements. The operation should be only an additional truncated nerve trunk sharp razor.

      TASK number 6.

 A child needs to perform the removal of the foot and lower leg, leaving a length of the tibia length of 3 cm. The calculation is conducted in the future growth of the limbs due to germ metaphyseal areas and keeping the three main principles of amputation in this situation:

1. preservation of the maximum segment length,

2. preserving growing zone of the femur and tibia.

3. The implementation of the atypical way truncation limbs (like the primary surgical treatment of wounds), taking into account the possibility of the children expressed regeneration and adaptation.

      TASK number 7.

 Given the uneven growth of the paired bones, the fibula to be truncated by 1.5 - 2.0 cm above the tibial. Reamputatsiya limbs should be narrow statements and consist only in the excision of bony prominences.

      TASK number 8.

  The first principle - strictest economy by removing obviously nonviable tissue. The second principle - save sprout metaphyseal area (in this case - the distal metaphysis of the tibia) in order to prevent a sharp increase in the backlog shin.

      TASK number 9.

 If truncation of paired bone synostosis can not prevent them, because the uneven growth of the paired bones leads to varus deformity stump.

       TASK number 10.

 In children, it is necessary to preserve the articular cartilage and other small metatarsal bones of the foot. It prevents infection and promotes continued growth. If possible, keep the whole joint, even articular surface of bone removed.

TASK number 11.

 Actions literate physician, has been kept unnecessarily distal tibial epiphyseal zone, which prevents a sharp increase in the backlog of the tibia. After performing this operation saved the reference volume stump. Stump is not rebuilt in connection with the removal of the foot, it is essential for the club-lasting fixing of the prosthesis.

      TASK number 12.

 In children, it should not be removed completely fibula, ligaments that strengthen the knee joint, and the presence of bones forms a stable attachment points of tendons and muscles of the hip points of the start of leg muscles.

      TASK number 13.

 Simulation forms of worship with the aim of thickening is a promising direction in reconstructive surgery. Club-shaped stump prosthesis allows a good pick, firmly fix it, increase the supporting limb.

   TASK number 14.

 When manifestations of rapidly expanding gas gangrene after an injury or gangrene on the atherosclerotic lesions of the principle of economy is not justified. Therefore, the level of amputation should be at the level of the knee or lower thigh.

    TASK number 15.

1. Compliance with maximum economy and saving every centimeter on a limb;

2. Emergency amputation produce the type of primary surgical treatment of wounds;

3. Keep the maximum segment length;

4. Delete only non-viable tissue;

5. To close the residual limb to use the preserved areas of the skin, even the ones that should be subject to removal.

     TASK number 16.

It is necessary to perform an operation Lisfranc, as will be observed the following principles:

a) the place will be saved to the muscle tendon metatarsals: anterior and posterior tibial muscle, long and short peroneal muscles. This will keep the pivot point on the foot, the motion in the joints;

b) will be observed strict economy stump length on foot and used plastic skin to close the wound stump;

c) the operation will be performed by Tina primary surgical treatment of wounds;

d) will be removed only nonviable tissue;

etc.) will be saved metatarsal articular cartilage and other small bones of the foot. This will prevent the development of infection and contribute to continued growth.

TASK number 17.

When the amputation should be possible to keep the work surface. In this situation it is necessary to maintain the anterior - lower surface and place the skin on the back of the seam - the lower surface.

        TASK number 18.

 1. There will be only non-viable tissue removed;

2. The maximum savings will be reached and saved every millimeter of length of the stump;

3. amputation should be performed so that there was voemozhnost for cinematization stump (performance falangizatsii first finger of Albrecht).

      TASK number 19.

  In this situation, there is no reason to perform the amputation of the leg. The main criterion for the solution of the question of amputation is the state of the soft tissues. In the context of the problem of soft tissue condition is satisfactory. To be primary debridement, transfer of open tibia fracture in a closed under the cover of antibacterial drugs.

     PROBLEM №20.

 This picture of the injured limb is an absolute indication for amputation in which you must keep four important principles:

a) The maximum savings for each centimeter;

b) carry out an amputation atypical type of primary surgical treatment of wounds;

c) to delete only non-viable tissue;

d) to use the preserved areas of the skin, even the ones that should be subject to removal for closing defects stump.

     TASK number 21.

   The length of the front flap should be 7.5 cm, as the diameter of the limb amputation at the level equal to 9 cm (27: 3.14). By following the principle of maximum conservation work surface, front flap should be 2/3 the diameter, that is 6 cm. Given the contractility of the skin during dissection, you need to add the length of the front flap 1/6 diameter, that is, 1.5 cm.

        TASK number 22.

  During ablation allowed excessive separating the periosteum of the femur, leading to disruption of its supply and necrosis. We used a method of treating aperiosteal periosteum. In childhood, it should be applied and the method of subperiosteal bone sawdust closed separated periosteum.

  TASK number 23.

 The longer the left arm, the richer feature stump. Therefore, when the amputation of the lower third of the forearm cuff method is shown, and at a higher level of amputation shown dvuhloskutny method where possible retraction biopotentials with various muscle groups during installation bioelectrical prosthesis.

TASK number 24.

  In this situation, the best level of amputation is the lower third of the forearm cuff method and cutting out a skin graft.

TASK number 25.

           Internal fragment displaced upwards and backwards

 (traction advantage of the sternocleidomastoid muscle) outer end moves downward and anteriorly (deltoid muscle) damaged subclavian artery, which is projected in the middle of the clavicle.

 TASK number 26.

  Damage to the axillary nerve bone fragments, as the nerve lies in the field of surgical neck shoulder subdeltoid cellular spaces.

TASK number 27.

1 careful comparison reposition bone fragments

2 Hold them in the correct position for the entire period of the formation of callus.

TASK number 28.

1 to ensure contact of bone fragments and hold them on the bias

2 exclusion of the presence of interposition between fragments fascia, muscle, adipose tissue - the reason for the formation of a false joint

3 ensuring a good blood supply to the bone fragments removing all sharp jagged edges

4 periosteum along the edge of the fragments must be an integer

5 Prevention of hypocalcemia

6 correction of the thyroid and parathyroid glands.

TASK number 29.

When fractures that can not be simultaneously reposition; if you can not keep the fragments after simultaneous reposition plaster cast. Two ways to skeletal traction: conducting metal spokes and the use of metal terminals in the metaphyseal area most frequently in the area of ​​the femoral condyles, tibial tuberosity, the calcaneal tuber, olecranon.

TASK number 30.

When subperiosteal bone resection periosteum shift through an incision in the side of the healthy parts of the bone at chresnadkostnichnoy - to the affected area to remove the bone with the periosteum, and malignant tumors - together with adjacent muscles.

TASK number 31.

The femur below the trochanter cutter make small through hole. Accordingly, the middle of the hole cross bone forceps Dahlgren, Piston. wire saw Olivekrona to form a saddle

surfaces of the proximal and distal fragments. The lateral edge of the proximal fragment is placed in a recess spike distal fragment.

TASK number 32.

On the side of the thigh upwards from the intended line of osteotomy of the greater trochanter from a mill producing fence bone graft rectangular 6 × 1,5 cm. At the level of the lower edge of the formed defect cross femur. In the medullary canal of the distal end of the process is introduced lower bone graft. The limb is removed, the upper end of the graft is placed into the defect after collection of the graft proximal fragment.

TASK number 33.

Produced oblique or "2" - shaped osteotomy followed by a gradual 1 mm per day stretching bone fragments using compression-distraction apparatus 5-7 days after application of the device.

TASK number 34.

To achieve the best conditions for the fixation of bone fragments and support.

TASK number 35.

1 line access via intramuscular period

2 away from the major neurovascular bundles

3 at front extremity with the smallest thickness of the muscular layer.

TASK number 36.

1 treatment and reposition of bone fragments

2 sawing at each of the fragments wide rectangular bone graft

3 transplant more in length are prepared on a long fragment

4 seizure graft to form a continuous bone defect extending through the fracture line

5 introduction of a long bone defect that it transplant

passed through the fracture line, then a short

6 graft fixation to bone catgut or thin bone

pins.

The topography of the cerebral department head

TASK number 1.

Hemorrhage is in tissue between musculoaponeurotic helmet and periosteum. Because of the loose connection aponeurotic helmet and bones. Hematoma is diffuse in nature and reaches the boundaries of the region, ie, those limits where the soft tissue area tightly fused with the bony prominences.

OBJECTIVE number 2.

On calvaria blood vessel wall is firmly connected with fibrous webs connecting the skin aponeurotic helmet and thus gaping if damaged, resulting in significant bleeding. The final stop of bleeding is possible only after ligation of the damaged vessel.

TASK number 3.

In primary surgical treatment should only remove non-viable areas of soft tissue. Excision of a 0.5 cm soft tissue from the wound edges is inappropriate, since It leads to the wound edges due to the reduction of fibrotic bridges that connect the skin to the aponeurotic helmet.

TASK number 4.

Incorrect frontal and supraorbital artery are terminal branches of the ophthalmic artery, originating from the internal carotid artery.

TASK number 5.

Conduction anesthesia greater occipital nerve is most advisable to spend at the upper nuchal line at a distance of 2 cm laterally from the midline, frontal - 2cm outward from the midline of the upper edge of the eye

TASK number 6.

1. Injury temporal region are dangerous because finer temporal bone, consists of 2 plates and has a diploma, so it is easy to form an exposed fracture fragments. From the cranial cavity in the temporal region between the bone and the dura, the artery lies the average dura mater, which is damaged, formed extensive hematoma.

2. Excessive bleeding from vascular soft tissue stop first pressing of the finger edges of the wound to the bone, and blood vessels to coagulate and then ligated.

TASK number 7.

The fronto-occipital-parietal region boasts 3 layers of fiber: subcutaneous, subgaleal, subperiosteal. The cause of this complication is a subperiosteal hematoma, which resulted in a violation of the blood supply, detachment of the periosteum from the bone. As a result, this has led to necrosis of bone sequestration.

TASK number 8.

Improving the patient's condition was the result of the outflow of blood from the system through intracranial veins veny- graduates, which are located in the area of ​​the mastoid, in the occipital region. Leeches secrete the bite antisvertyvayuschey substance that promotes the outflow of blood from the cranial cavity.

TASK number 9.

Damaged superficial temporal artery. Heavy bleeding is due to the abundant network of anastomoses, vascular walls do not collapse, as their adherent to the adventitia connective strands coming from the helmet to the scalp. Vessels arranged surface (under the skin). The blood supply to soft tissue covers the cranial vault made of three pairs of reservoirs (pools external and internal carotid arteries).

TASK number 10.

Facial paralysis occurred as a result of damage to it in the lower part of the facial nerve canal.

TASK number 11.

In the soft tissues of the head there is a link extra- and intracranial venous system through emissarnye and diploeticheskie veins. From the suppurative lesions in the parietal region through the veins of graduates of this bone infection got into the superior sagittal sinus, causing its thrombosis.

TASK number 12.

During the autopsy, carbuncle in the occipital region was damaged occipital artery which is a branch of the external carotid artery and is outward from the external occipital ridge.

TASK number 13.

During mastoidectomy surgeon declined to the rear side of the triangle Shipo. As a result, there is damage to the sigmoid sinus. There are several ways to stop bleeding from a ruptured sinus: tamponade, sinus ligation, suturing wounds sinus plastic flap defect of the dura mater (the plastic on the Burdenko).

TASK number 14.

The fronto-parietal-occipital region has three layers of fat: subcutaneous, subgaleal, subperiosteal. Massive hematoma located in subgaleal tissue; localized within the parietal bone - subperiosteal; superficial hematoma located in the subcutaneous tissue.

TASK number 15.

With progressive increase in intracranial pressure recommended resection trepanation. Stages of the operation: the product lumbar puncture; shearing skin-aponeurotic flap in the temporal region pedicled directed to the base of the skull; dissection of the periosteum; applying a burr hole is expanded to 6x6 cm, opening the dura mater cross cut. The hole in the temporal bone close skin-aponeurotic flap.

TASK number 16.

Fracture of skull base occurred in the anterior cranial fossa. Bleeding from the nose, and a symptom of "points" associated with damage to the blood vessels lattice, cavernous sinus, the formation of bilateral retrobulbar hematomas sockets.

TASK number 17.

 A possible source of bleeding may be an upper sagittal sinus and posterior branch of the middle meningeal artery. Shown osteoplastic craniotomy. Perform horseshoe patchy skin incision with fiber and aponeurosis. On the border of face and brain head applied five burr holes in the bone formation of bone - periosteal flap. Crosswise incised dura removed hematoma, hemostasis, bandaging branches of the artery, sagittal sinus layering stitching wounds.

Most often it damaged posterior branch as well. meningea media.

TASK number 18.

The surgeon came out of the back of the border triangle Shipo, resulting in damage to the sigmoid sinus - the source of bleeding.

Methods to stop bleeding:

a) suturing and bandaging sinus;

b) plastic sine of Burdenko by leaf of the dura mater;

c) tamponade sinus;

g) plastic muscle or sinus tissue aponeurotic helmet.

TASK number 19.

Primary surgical treatment of soft tissue of the cranial vault produced very economically; hemostasis is performed using clamps Halstead with ligation of vessels; flashing bleeding vessel; electrocoagulation damaged vessels; Because the bones of the cranial vault hemostasis carried out: rubbing in the cancellous bone of sterile paraffin or wax; compression using forceps three layers of the bones of the cranial vault (compact substance, spongy substance, glass-plate).

TASK №20.

 In case of injury the skull of this localization can be damaged by: IX, X, XI and XII cranial nerves, sigmoid and transverse sinus of the dura mater, the structure of the medulla oblongata, the main artery, the cerebellum, the pyramid of the temporal bone.

TASK number 21.

Anterior cranial fossa with the transition to high. The fracture line passes through the perforated plate of the ethmoid bone, the upper wall of the orbit, large and small wings of the sphenoid bone with the damage I - III pairs of cranial nerves, to break hard and arachnoid meninges, with rupture of veins of the dura mater.

TASK number 22.

Bleeding from the soft tissue of the cranial vault in children briefly as the adventitia of vessels not yet firmly adherent to the fibrous septa in the subcutaneous tissue of the cranial vault and vascular lumen collapses; adult vessels gaping and bleeding is very significant.

TASK number 23.

Scalp flap is cleaned of dirt, the wound thoroughly washed with 3% hydrogen peroxide solution furatsilina or ethacridine lactate.

On the flap is removed the fascia and subcutaneous tissue, producing skin graft perforation incisions 1 cm in a staggered manner. In cortical bone, multiple burr holes applied to the spongy substance, based on the development of a granulation. Prepared flap closed wound scalp flap of full thickness left in the preservation of pedicle.

TASK № 24. Please remove the bone fragments of the outer plate. To remove fragments of the inner plate area of ​​damage in the 2-4 times the outer expanding defect outer plate nipper Luer.

Hemostasis provide crushing bones when aligning the edges of the wound wire cutters, 3% solution of hydrogen peroxide, rubbing the bone hemostatic wound paste.

TASK number 25.

The edges of the wound periosteum excised sparingly; excessive exposure of the bone may be complicated by the occurrence of osteomyelitis. The treatment of bone injuries operate on the principle of expansion of bone defect from the center to the periphery of the areas set remote from the venous sinuses, remove 2-3 cm small bone fragments, repositioned in a larger fixation sutures provide. The edges of the bone defect leveled in preparation for bone wound to the plastic.

TASK number 26.

To cut large bone flap, centered on the area of ​​damage: it is treated, the audit carried out wounds, and epi-subdural space, and then the bone flap is laid in its place the principle of de Martel.

TASK number 27.

Debridement produced in principle from the periphery to the center. At first burr hole is applied adjacent to the area of ​​bone fragments and depressions are resected bone to allow access to the area of ​​damage to the sinus and intact areas. Then, the circular or sectoral resection with dented the fragments are removed depressed fracture of a single block, gently otslaivaya it from the dura mater. If there is bleeding, it stopped finger pressing of the sinus.

TASK number 28.

1. vascular suture line breaks or at the upper wall of the sine; there is a danger of eruption of sutures

2. The plastic closure of sinus free flap aponeurosis, subgaleal tissue, muscle, which is glued or sutured cyanoacrylate glue joints,

3. compression of both sides of the epidural sinus tampons. At the same time possible: compression of the brain, the violation of the outflow of sinusitis, the risk of spread of thrombosis in the occipital direction of the development of inflammation, bleeding again when removing dressing pads on both sides of the sine

4 sine plastic outer layer of the dura mater of NN Burdenko. In acute traumatic brain injury, this method is almost never used.

TASK number 29.

Gaping defect two or three walls of the sinus. Sinus tie up on either side of the wound. Ligature wire around a large circular sinus needle.

Ligation of the anterior third of the superior sagittal sinus and the transverse and sigmoid are generally not accompanied by a violation of the venous outflow. After ligation of the superior sagittal sinus in the middle third 50%, and in the posterior third - in 75% of cases there is a rapid increase in traumatic brain edema in violation of cerebral circulation, and there comes death.

TASK number 30.

Intact dura is opened at a syndrome of brain compression, intracranial hematoma, contusion vast pockets. Unreasonable opening the dura mater makes translating non-penetrating traumatic brain injury in penetrating; this increases the risk of infection in the intrathecal space meningoencephalitis.

TASK number 31.

With the development of septic complications in the wound. Plastic closure of the dural defect seals subdural space, preventing CSF prevents infection intrathecal space and the development of rough skin and periosteal-shell-brain adhesions.

TASK number 32

To justify the rational timely access over the place of localization of the foci in the area of ​​a spherical configuration, where one of the layers of the wound is a bone - unyielding layer. Since this scheme allows you to define the projection of the trunk and branches of the middle meningeal artery, the main fissures, ventricles and cerebral arteries for quick access with the least trauma.

TASK number 33.

To the periphery of the region to the zygomatic arch to the legs included in the neurovascular bundle superficial temporal artery and Vienna, ushnovisochny nerve. Finger pressing the edges of the wound of soft tissue to bone, electrocoagulation, or ligation obkalyvanie.

TASK number 34.

To postoperative temporal muscle prolapse prevented loss of brain substance. Due to the risk of damage to the stem of the middle meningeal artery.

TASK number 35.

To prevent herniation of the brain stem in the foramen magnum.

TASK number 36.

Reduction or complete disappearance of pulsation of the brain is a hallmark of a sharp rise in intracranial pressure.

TASK number 37.

Cutting the bone makes an angle of 45 ° in order to create support for the periosteal-bone flap when returning it to its original location.

The topography of the face

TASK number 1.

Acute inflammation of the parotid gland caused compression of the facial nerve, which passes through the thickness of the gland. The facial nerve supplies the entire mimic muscles. All of these symptoms point to the facial nerve damage.

TASK number 2.

The direction of the wound indicates damage to the excretory duct of the parotid gland. It is projected from the bottom of the earlobe to the corner of the mouth slit. The front edge of the masseter muscle, turning at a right angle pierces buccinator and opens into the buccal cavity of 6-7 upper teeth. Excretory duct lies between the muscle lifting the corner of the mouth and body fat cheeks, bucco-pharyngeal fascia.

TASK number 3.

The direction of the wound indicates damage to the facial artery and marginal mandibular branch of the facial nerve projection facial artery runs from the middle of the edge of the lower jaw to the medial corner of the eye.

PROBLEM № 4. Yes. Front, then the angular Vienna faces in the corner of the eye anastomoses with the ophthalmic veins, which are part of the Department of intracranial and communicates with the cavernous sinus. As a result of compression of the facial vein edema fluid came retrograde flow of blood (up), which can reach the cavernous sinus and cause the disease.

TASK № 5. As a result, serious injury occurred damage of artery-jaw. In case of difficulty, you can stop the bleeding tie the external carotid artery.

TASK number 6.

Gaping wounds contractility explains the layers of the buccal region are woven into the skin facial muscles. Significant bleeding edges and rapid healing of the wound due to the intensive blood supply to a large number of vascular anastomoses. Beauty subepidermal seam.

TASK № 7. The skin of the upper lip comprises a large number of sebaceous glands. For boils may develop thrombosis and thrombosis of the cavernous sinus dural scheme: upper lip, facial Vienna Vienna and its initial division at the medial edge of the eye slit angular Vienna, upper and lower eye-cavernous sinus vein.

TASK number 8.

To turn off the function of the masticatory muscles. The fascia of the medial pterygoid muscle is pterygoid venous plexus, which has anastomosis with cavernous sinus vein emissarnye oval and ragged holes and veins of the orbit. Turning off the masticatory muscles is aimed at preventing complications of intracranial nature septic cavernous sinus thrombosis, meningitis.

TASK number 9.

The temporal process is directed by the zygomatic arch in the temporal area. He is a deep piece of fascia between the front edge of the temporal muscle and the lateral wall of the orbit; orbital process is in the infratemporal fossa, adjacent to the lower orbital fissure; pterygopalatine - penetrates between the lower orbital slot from above, the upper and lower jaws in the front, large wings and the base of the pterygoid process of the sphenoid bone through the lower orbital fissure, he can reach the cavernous sinus.

TASK number 10.

Burrowing pus in the anterior peripharyngeal space occurs 4 times more often than the breakout of pus into the ear canal through the pharyngeal process parotid fascial capsule is poorly developed, in addition, between the gland and its tissue capsule has to warrant the accumulation of pus.

TASK number 11.

Festering mumps has evolved as a result of ascending infection from the vestibule of the mouth of the canal on the background of dehydration, sudden oppression of immune system function, violations of the outflow of saliva and blood circulation disorders .. Radial, taking into account the provisions of the branches of the facial nerve VII and parotid duct. Currently, with purulent parotitis prefer longitudinal section in front of the tragus, t. E. Zanizhnechelyustnoy vypreparovyvaniem fossa with facial nerve branches.

TASK № 12. The neutral zone - zone of the face, where there is no branch of the facial nerve. When properly incision possible paralysis of the facial nerve, salivary fistula.

TASK number 13.

The facial nerve and its branches temporal, zygomatic, buccal, marginal branch of the lower jaw, neck. Electrophysiological. Ligation of the external carotid artery during sleepy triangle.

TASK № 14. The bed of the parotid gland form a bubble, medial pterygoid, digastric rear abdomen, sternocleidomastoid muscle, muscle anatomy bouquet starting from the styloid process, the branch of the mandible and its fascial capsule. In verhnezadnem from the external auditory meatus and medial pharyngeal process departments, it is underdeveloped. Parotid gland is closely linked with the capsule penetrate into the interior of cancer fascial septum, submandibular - loosely between the capsule and the gland is fiber.

TASK number 15.

External carotid artery. Tied with the artery over the sleepy triangle.

TASK number 16.

Retraction of the tongue explains the increase in the phenomena of asphyxia. The language should be removed from the mouth with the help of glossotilt and fix it to the clothes pin or ligature.

TASK number 17.

Maxillary sinus communicates with the middle nose course through the maxillary cleft, which is under the middle turbinate. Spina is located in the medial wall above the bottom of the sinus, which causes difficulty of outflow discharge. When inflammation due to swelling of the mucous membrane of the middle turbinate, maxillary cleft may close.

TASK number 18.

Ethmoid sinuses are thinned wall that defines the possibility of a transition of the inflammatory process in the orbit and the optic nerve.

TASK number 19.

Roots 7 and 8 less 6 wisdom teeth are separated by a thin layer of the mandibular canal cortical plate in some cases may be in the channel, which explains the rapid transition of the inflammatory process in the pulpit mandibular canal and the occurrence of neuritis of the inferior alveolar nerve V3. The walls of the channel intractable. When edema is a sharp compression of the nerve tunnel syndrome.

TASK number 20.

Zev - the boundary of the oral and nasal cavity with the nasopharynx: the soft palate with uvula, palatal handles palato-chzychnaya - front, velopharyngeal - back, base of the tongue, back of the throat containing limfoepitelialnogo ring consisting of two palatal between the palatine arches, two pipe at pharyngeal openings of the auditory tube, lingual and pharyngeal tonsils. Frequency tonsillitis caused by the fact that they are the first barrier to infection of the mouth and nose to the nasopharynx.

Pharyngeal tonsil adenoid called.

TASK number 21. The thickness of a compact disc, the separating alveoli seventh tooth of the upper maxillary sinus, often less than 0.3 mm may occasionally be separated only from the sinus mucosa. This feature determines the appearance of foreign bodies in the tooth root tooth extraction surgery, cysts and purulent inflammation of the sinuses odontogenic origin.

Topography of the internal organs of the neck. Operations on the neck.

TASK number 1.

Lymphogenous. Deep submandibular abscess developed as a result of purulent fusion of lymph nodes located in the bed of the submandibular gland. In the formation of the bed involved nth fascia of the neck. If you are delayed or not widely autopsy purulent focus may become numb in the hyoid area along the submandibular duct and sleepy triangle - in the course of the facial artery and vein. Incisions are made in the 1.5 - 2 cm downwards and parallel to the lower edge of the lower jaw to avoid damage to the edge branch of the facial nerve and facial vessels.

TASK №2.

 Burrowing pus is damaged esophagus may spread in the posterior mediastinum. For opening retrovistseralnogo cellular spaces incision is carried on the back edge of the sternocleidomastoid muscle

TASK number 3.

The patient appeared abscess pozadiorgannogo retrovistseralnogo space on the sides and back of the esophagus. Timely and widely opening the abscess can prevent the development of secondary mediastinitis. Opening of cellulitis is made on the front edge of the left sternocleidomastoid muscle.

TASK number 4.

Based on the principle of intraoperative ablastics. In cancer of the lower lip submandibular lymph nodes are affected by regional, middle group which is located deep in the submandibular gland. During the fascial tissue-futlyarnoy excision is necessary to bandage facial veins and arteries; during surgery can cause injury of the hypoglossal nerve.

TASK number 5.

Ligation of the external carotid artery during sleepy triangle in a given situation to produce hemostasis. External carotid artery in a sleepy triangle is projected along the bisector of the angle formed by the sternocleidomastoid muscle and the upper abdomen omohyoid muscle. 6-8 cm long incision made from the angle of the mandible on the leading edge of the sternocleidomastoid muscle so that it corresponds to the middle of the upper edge of the thyroid cartilage.

 To distinguish from the internal carotid artery using the following features:

 1. anatomical sign of paradox - the names of the discrepancy with the position of the artery: external -raspolagaetsya medially and anteriorly, inside - outwards and backwards;

 2. indication of branches - from the external carotid artery branches of the anterior group departs superior thyroid, lingual, facial, internal - branches does not give;

3. The external carotid artery cross the hypoglossal nerve and the overall facial Vienna;

4. by digital compression of the external carotid artery is absent pulse in the superficial temporal and facial arteries.

TASK number 6.

When you select the bifurcation of the common carotid artery can be damaged cervical loop of the hypoglossal nerve, the development of the phenomena of dysphagia due to denervation scapular-hyoid, sterno-hyoid shchito-hyoid muscles. To enhance rapid access to the bifurcation ligated and dissected a total facial vein.

TASK number 7.

External carotid artery is located, together with the internal jugular vein and vagus nerve in neurovascular cellular spaces, limited

plate IV parietal fascia of the neck; with each component beam has its own fascial sheath. The artery is medially and anteriorly with respect to the vein, X cranial nerve is located posterior to and between them. Report

ligation of the internal carotid artery, instead of the outside, accompanied by acute stroke in the carotid with the development of areas of softening of the brain.

TASK number 8.

Outside drainage of thoracic duct is shown for the purpose of lymphosorption - a method of detoxification. The resulting lymph passes through the sorbent general or selective action, that is cleaned of toxins and reinfuziruyut. Thoracic duct opens into the rear wall

left 62% of V X. Frauchi venous angle Pirogov fusion of the internal jugular and subclavian veins. The incision is made on the front edge of the sternocleidomastoid muscle 6-8 cm from the sternum. Bare internal jugular vein, carefully selecting the approach to venous angle and the thoracic duct.

TASK number 9.

In the early postoperative period after the lower tracheostomy may develop in the subcutaneous abscess or suprasternal mezhaponevroticheskoy or pretracheal tissue. Suprasternal space is limited to 2nd and 3rd fascia neck pretracheal - parietal and visceral leaflets 4th fascia of the neck. Subcutaneous abscess can spread to the anterior chest wall, suprasternal mezhaponevroticheskaya - in a blind pouch Gruber between 2nd and 3rd fascia posterior to the sternocleidomastoid muscle in her case, pretracheal - in the anterior mediastinum.

TASK number 10.

 Distant metastasis of gastric cancer Virhovsky lymphogenous way to the medial lymph node of a chain of lymph nodes along the lateral neck artery Left-iron Virchow. Iron Virchow lymph node is the closest to the cervical thoracic duct. When the pressure in the superior vena cava and left corner venous e.g., coughing, thoracic duct which merges in the lymph node with retrograde flow of lymph enter cancer cells.

TASK number 11.

Vertebral artery located in the staircase-vertebral triangle. It is the first and largest branch of the First Division to the anterior scalene muscle and the subclavian artery at the level of CVI enters into bone and fibrous channel formed by holes transverse processes of the vertebrae and ligaments SVI- CI. Upon emerging from the canal pierces the back of the atlanto-occipital membrane and penetrate through the large hole in the skull cavity.

TASK number 12.

 Thoracic duct empties into the left venous angle Pirogov (merger of the left subclavian and internal jugular vein). The left venous angle and thoracic duct are located posterior to the sternocleidomastoid muscle in the ladder-vertebral triangle. The incision is made at 1 cm above and parallel to the left clavicle.

TASK number 13.

With the opening of the submandibular cellulitis it is necessary not to damage the facial artery and vein. Vienna is located on the front artery - on the rear surface of the submandibular gland.

TASK number 14.

Quick access to the cervical esophagus is a sectional view taken along the front surface of the left sternocleidomastoid muscle, because the esophagus is deflected to the left of the midline of the neck.

TASK number 15.

At this location the isthmus of the thyroid gland is performed lower tracheostomy. Steps: dissection of soft tissue of the trachea, opening the trachea, the introduction of the tracheostomy tube using traheorasshiritelya Trousseau, the fixation of the tracheostomy tube, wound closure.

TASK number 16.

From previstseralnogo interfascial cellular spaces pus can spread in the anterior mediastinum.

TASK number 17.

In malignant degeneration of the parotid gland may occur damage to the wall of the external carotid artery. Its projection line represents the bisector of the angle formed by the sternocleidomastoid and omohyoid muscle.

TASK number 18.

Lingual artery ligation performed within Pirogov triangle formed by the tendons of the digastric muscle and the hypoglossal nerve. After dissection of the soft tissue fibers divide sublingual-lingual muscles reveal the lingual artery.

TASK number 19.

If this disease is recognized damage to the vertebral artery. Milestones include VI cervical vertebra, which includes the opening of the artery. Vertebral artery starts at the first section of the subclavian artery.

TASK number 20.

When you remove the thyroid gland was damaged by recurrent nerve at the stage of selection and the medial posterior surface of the gland.

TASK number 21.

In nizhnemedialnoy of the submandibular triangle - in the triangle Pirogov, which is limited to the top hypoglossal nerve, the front - the front edge of the mylohyoid muscle, below - digastric tendon. For the approach to the triangle Pirogov after dissection of the outer layer of fascial capsule, the submandibular gland is displaced upwards and backwards several. In the course of the fibers divide sublingual-lingual muscle. The lingual artery is located along the bisector of the angle formed by the hypoglossal nerve and the tendon of digastric.

TASK number 22.

The patient holds steal syndrome. When occlusion of the left subclavian artery and downs of her pressure, blood from a pool of internal carotid artery through an arterial circle of Willis of the brain retrograde reset the left vertebral artery into the subclavian, aggravating the disorders of cerebral circulation.

TASK number 23.

Mezhaponevroticheskoe suprasternal space is limited below the jugular notch of the sternum, the front - the second neck fascia, is attached to the front surface of the sternum and sternoclavicular joints, behind - the third fascia, is attached to the back surface of the sternum. Pus from this space can spread in a blind pouch, which lies posterior to the sternocleidomastoid muscle, or in the case of this muscle. Purulent cavities opened arcuate cut 1 cm above the jugular notch of the sternum, or a vertical incision in the midline in this case it could be damaged jugular venous arch.

TASK number 24.

Lymph from the skin of the lower face is given to the surface submandibular lymph nodes. Lisa M. has been a complication of an infected skin wound lymphangitis, lymphadenitis, purulent fusion of lymph node with the transition of purulent process in subcutaneous tissue submandibular triangle. With the opening of the submandibular cellulitis retreat 1.5-2 cm downwards from the bottom edge of the lower jaw to avoid damage to the edge of the facial nerve branches.

TASK number 25.

Submandibular lymph nodes are by regional for molars. Submandibular abscess in a patient Ts arose due to purulent fusion of lymph nodes located in the bed of the submandibular gland. Pocket of pus in the submandibular cellulitis may arise in the hyoid region: in the gap between oral and hyoid-lingual and sublingual muscles passes submandibular duct, as well as sleepy triangle along the facial vessels.

TASK number 26.

Foreign bodies of the cervical esophagus often localized at the level of his first anatomical narrowing of the C - in the 15-20 cm from the upper incisors. Online access to

cervical spine body 8-10 cm incision is performed on the leading edge of the left sternocleidomastoid muscle, from the jugular notch of the sternum trachea, the esophagus moves to the left side. The esophagus is between the trachea and the spine main neurovascular bundle of the medial triangle of the neck hook farabeuf displaced in the lateral direction.

TASK number 27.

In the mobilization of the rear surface of the thyroid gland in the lower pole was cut or crushed hemostat recurrent laryngeal nerve nerve forms a crossing with the inferior thyroid artery. This complication is eliminated by subfascial subtotal resection of the thyroid gland by OV Nikolaev - iron extirpate from our own capsule while maintaining the posterior regions of the lower pole. Preserving the capsule and the lower pole of the body avoids damage to the parathyroid glands, esophagus, the common carotid artery and the recurrent laryngeal nerve.

TASK number 28.

 Acute respiratory failure occurred due to acute edema of the mucous membrane of the larynx is most pronounced in the department mezhsvyazochnom toxic infectious origin. The child shows the lower tracheostomy and for which you need the following special tools: two hooks farabeuf small blunt hook for displacement of the isthmus of the thyroid gland, the two single-toothed hook extender trachea Trousseau, Laborde, tracheostomy cannula Luer, Bjork. During the tracheostomy complications may occur: bleeding and air embolism, "nedovskrytie" insertion of the cannula into the submucosal layer and "perevskrytie" tracheal esophageal injury, injury of the common carotid artery and the brachiocephalic trunk, damage to the isthmus of the thyroid gland, subcutaneous emphysema, tracheal cannula loss.

TASK number 29.

At the bottom of a tracheostomy may be damaged inferior thyroid artery, brachiocephalic trunk, left common carotid artery and aortic arch, even children and women. In order to prevent injury of arteries should: ensure the correct position of the patient on the operating table cushion height of 12-15 cm under the shoulder blade, his head thrown back, external reference points match the line, located in the midline; carefully separated from pretracheal fiber front wall of the trachea when accessing the trachea internal benchmark is the "white line" of the neck; fix the trachea and ensure no large blood vessels in the wound.

TASK number 30.

The patient was urgently embolectomy shows that you can open way with "T" - shaped surgical access Petrovsky. When you access the artery should be considered its middle position - subclavian Vienna is located in front and down trunks of the brachial plexus - backwards and upwards.

TASK number 31.

Puncture and catheterization of the subclavian vein of the patient K due to the need of intensive intravenous infusion therapy. As a result of peripheral veins shock subsides, it is difficult to puncture; after prolonged infusion, they quickly thrombosing. Subclavian Vienna does not fall down - it is fixed to the fascia of the subclavian muscle and the 1st rib, it has more space velocity of blood flow, prevents thrombosis. Subclavian vein frequently punctured at a point about 1 cm down from the middle of the clavicle, the needle directed upwards and medially at an angle of 45 °. Possible complications: pneumothorax, air embolism, wound to the subclavian artery and the brachial plexus, kateteremboliya.

TASK number 32.

The volume of surgical intervention in the internal carotid artery depends on the nature of her injury. With the localization of atherosclerotic plaque in the mouth shows trombendarterektomiya; porazhenii- in segmental replacement prosthesis, bypass surgery, the use of the external carotid artery. To access the internal carotid artery incision is made on the rising edge of the sternocleidomastoid muscle on the angle of the mandible. An important feature of the external carotid artery from the inside is a sign of the branches on the outside in a sleepy triangle branches depart from the inside - no outdoor located medially and anteriorly, it crosses the hypoglossal nerve.

TASK number 33.

The anesthetic is applied to the exit site of the brachial plexus interscalene intermuscular interval. Of injection needle produce up to 3-4 cm from the top edge of the clavicle, respectively its middle. And down in front of the brachial plexus is located subclavian artery, and even more down and in front - subclavian Vienna. Prolonged blockade achieved by introducing the catheter into the tissue in the course of the brachial plexus.

TASK number 34.

The patient shows a neck vagosympathetic blockade on Vishnevsky. To ensure the effect of the blockade using 40-50 ml of 0.25% solution of novocaine. The patient is placed on his back, cushion height of 12-15 cm placed under the shoulder blade, her head turned to the opposite side, the hand on the side of the blockade is removed downwards. Determine the point of intersection of the rear edge of the sternocleidomastoid muscle and the external jugular vein. The index finger of the left hand is placed over this point and increasing pressure fingers feel the front surface of the spine with the main neurovascular bundle of the medial triangle of the neck medially displaced. Form a "lemon peel" administered novocaine solution, slowly moving the needle to the spine. Novocaine infiltration shifts vessels. After Feel spinal needle, the needle is withdrawn back 1-2 mm. Make sure that no blood, without changing the position of the needle is introduced into a solution of novocaine. It is necessary to ensure the "depot" at the level of anesthetic CIII hyoid bone because the vagus nerve and sympathetic trunk to this level are located in the posterior part peripharyngeal space.

Topography of chest and mediastinal organs.

 Operations on the chest wall

TASK number 1.

Radial arrangement of the cuts taking into account the milk ducts. When retromammary massive phlegmons incision cosmetic (Bardengeyera) on the transition skin folds under the gland.

TASK number 2.

The radial mastectomy.

Basic principles:

 1. Removal of the entire breast cancer regardless of tumor size.

2. Removal of a large extent of the skin and subcutaneous fat. The incision should defend from a tumor by at least 7-8 cm.

3. Removal own fascia, small and large pectoral muscles.

4. Removal of axillary, subscapular lymph nodes and fiber.

5. All tissues are removed as a unit.

TASK number 3.

Extra- intraplevralnaya staircase and partial and full. The main stages of the ladder thoracoplasty: subperiosteal resection of the ribs, opening the pleural cavity and its drainage. Rib resection is performed by the type of stairs, over the entire cavity and introduced into each section of the oil-balsamic swab.

TASK number 4.

Collateral circulation is carried out by the branches extending from the aortic arch: brachiocephalic trunk, the left common carotid and the left subclavian artery branches extending from said artery, and branches extending from the aorta below the constriction.

TASK number 5.

Dotted costophrenic sinus on the shoulder or posterior axillary lines. Tools: syringe, needle, rubber tube, hemostat.

TASK number 6.

The right bronchus is shorter and wider than the left. Located at a smaller angle to the trachea, it is essentially a continuation of the trachea.

TASK number 7.

The posterior mediastinum. Circumesophageal cellular spaces that is associated with the space retrovistseralnym neck.

TASK number 8.

Thoracic duct below the III-IV-V thoracic vertebrae adjacent to the right pleura, so damage to it at this level leads to right-hand hilёznomu pleurisy. Above of IV thoracic vertebra thoracic duct makes a turn to the left and is adjacent to the left pleura, so damage at this level leads to the left-hand chylous pleurisy.

TASK number 9.

Bleeding from possible unpaired hemiazygos veins and their tributaries, the aorta, as at the level of thoracic vertebra V (IV thoracic vertebra - the place of crossing the esophagus from the aortic arch) thoracic aorta is gradually moving to the back surface of the esophagus.

TASK number 10.

Anterolateral (for the parasternal line, V edge to the posterior axillary line); posterolateral (on the paravertebral line level II thoracic vertebrae, rounding the corner of the blade to the anterior axillary line); side (mid-axillary line divides it in half V-VIII intercostal space);

TASK number 11.

The wound was sutured with interrupted sutures of thick catgut 3 series. The first row of stitches captures pleura, internal thoracic fascia, periosteum and intercostal muscles (muscle pleuro-seam). The second row of stitches applied to the superficial fascia and muscle of the chest wall. The third row of stitches applied to the subcutaneous tissue, superficial fascia and skin. Puncture to remove air from the pleural cavity.

TASK number 12.

Can be damaged by internal thoracic artery, intercostal neurovascular bundle. After making a careful hemostasis pleura is sutured in layers, the internal thoracic fascia, periosteum, intercostal muscles, superficial muscles, superficial fascia and skin.

TASK number 13.

When lung cancer is first treated with pulmonary Vienna, then the artery and bronchus to prevent the spread of cancer cells through the blood stream.

TASK number 14.

Putting the clamp on the segmental bronchus, you can use hyperventilation define the boundaries of the segment (this segment is in a sleeping state). When segmentectomy should be treated artery segmental bronchi, less segmental vein as often intersegmental veins should be preserved.

TASK number 15.

Dotted the lower anterior pericardial sinus. Puncture of the pericardium by Larry - the place (angle) between the xiphoid process and the accession VII ribs to the sternum. The pericardium forms a more oblique and transverse sinuses. The boundaries of the lower anterior sinus up the sternum and of the diaphragmatic pericardium, epicardium apex of the heart. The boundaries of the oblique sinus make lower hollow Vienna, pulmonary veins, left atrial epicardium, pericardium, adjacent to the esophagus.

TASK number 16.

Tetralogy of Fallot: 1.Suzhenie or pulmonary atresia; 2.Gipertrofiya right ventricle; 3.Nezaraschenie interventricular septum; 4.dekstropozitsiya aorta (aortic expectoration from the right ventricle).

TASK number 17.

1. Material: thin, large intestine, stomach.

 2. In front of the sternum (Roux-Herzen), behind the sternum (retrosternal space by Eremeev), through the anterior mediastinum through the posterior mediastinum, transplevralno. 3. End-to-end, end to side, side to side.

TASK number 18.

1. Upper midline laparotomy;

 2. Site preparation jejunum maintaining vascular arcades;

3. Preparation of the tunnel in front of the sternum for the gut;

4. Resection of the esophagus;

 5. anastomosis between the esophagus and intestine;

TASK number 19.

Holes: esophageal, aortic, 4 coal, inferior vena cava; Weaknesses: lumbocostal (2) sternocostal (2) triangles.Slots: between three pairs of legs of the lumbar aperture for two right and left.

TASK number 20.

1. The right lung (top to bottom) - the bronchus, artery, Vienna;

2. Processing and bandaging: bronchus, artery, Vienna.

3. azygos vein.

TASK number 21.

Hemothorax arose due to damage to the intercostal vessels, hilar fascia and breaking ribs parietal pleura.

TASK number 22.

Hemo and pneumothorax in a patient P., is a consequence of damage to the intercostal vessels and lung.

TASK number 23.

The closed nature of the bone and fibrous boxes for proper and infraspinatus muscles when inflammation causes them high blood pressure and, as a result, compression of the nerve endings.

TASK number 24.

To address the issue of the possibility of radical surgery for breast cancer is necessary to obtain information on the status: axillary, of chest and neck lymph nodes on the affected side, the breast and the lymph nodes on the opposite side contralateral metastasis, chest cavity mediastinum, abdominal organs, such as lymph nodes the gate of the liver,

cervical and thoracic spine, the ovaries.

TASK number 25.

The mammary gland is located in the chest wall muscles. Providing different functional states of muscle contraction, relaxation allows you to get more information about the displaceability cancer and axillary lymph nodes.

TASK number 26.

Germination of breast cancer in the pectoralis major muscle, or retromammary location of the inflammatory infiltrate.

TASK number 27

The skin, subcutaneous tissue, superficial fascia, thoracic fascia pectoralis

muscle subpektoralnoe surface area, surface-plate clavicular pectoral fascia, deep subpektoralnoe space, external intercostal muscles, internal intercostal muscles, hilar fascia predplevralnaya fiber, the parietal pleura.

TASK number 28.

At the turn of the lower edges of the risk of damage to the liver and spleen.

TASK number 29.

Fracture of the lower ribs in posterior may be accompanied by damage to the kidneys and adrenal glands.

TASK number 30.

The following forms of mastitis localization in accordance with the clinical classification - subcutaneous; - Intramammary; - Subareolyarny; - Retromammary; - total.

TASK number 31.

In costophrenic pleural sinus is the most profound part of the pleural cavity.

TASK number 32.

In the treatment of the right main bronchus there is a risk of damage and inferior vena azygos vein.

TASK number 33.

In the treatment of the left main bronchus can cause injury of the ascending aorta and pulmonary trunk.

TASK number 34.

Damaged thoracic duct. Chylothorax - the presence of lymph in the pleural cavity.

TASK number 35.

Damaged thoracic duct; chylothorax.

TASK number 36.

Recurrent laryngeal nerve.

TASK number 37.

The right bronchus is shorter and thicker than the left. It is a continuation of the trachea and forms with it an angle of approximately 155 °. Left bronchus forms an angle of 120 ° trachea.

TASK number 38.

From blood loss and cardiac tamponade. Dangerous chest area corresponds to the border of the relative dullness of the heart - the projection of the heart on the chest wall.

TASK number 39.

Thoracic duct. If the damage of the flow necessary to select and tie the ends.

TASK number 40.

At the level of the bifurcation of the trachea of ​​IV thoracic vertebra, and the passage of the esophagus through the diaphragm X thoracic vertebrae.

TASK number 41.

The oblique sinus of the pericardium, it is limited to the front the rear wall of the left atrium, the rear - the rear wall of the pericardium, the bottom and right - inferior vena cava and estuarine areas of the right pulmonary veins, top and left - wellhead departments left pulmonary veins.

TASK number 42.

After transverse sinus of pericardium; front and top it is limited to the ascending aorta and pulmonary trunk, rear - the rear wall of the pericardium and the right pulmonary artery; Bottom - groove between the left ventricle and atrium.

TASK number 43.

When you select a patent ductus arteriosus are oriented to the left phrenic and vagus nerves.

TASK number 44.

The anteroinferior pericardial sinus.

TASK number 45.

On right. Exclude the possibility of damage to the thoracic duct. Through the right brachiocephalic and the superior vena cava.

TASK number 46.

Brachiocephalic trunk, the left common carotid artery, left subclavian artery.

TASK number 47.

Creating artificial esophagus using a portion of greater curvature of the stomach, or a thin portion of the colon.

TASK number 48.

The patient shows the operation - resection of the pericardium - perikardektomiya. Threatening complication is the rupture of the atrial wall due to its subtlety.

TASK number 49.

Antetorakalny way to the tunnel to the chest, retrosternal in the anterior mediastinum through the posterior mediastinum, transplevralny.

TASK number 50.

The patient shows implantation of an artificial valve.

TASK number 51.

CABG, coronary artery bypass grafting - the shunt between the left semicircle of the ascending aorta and the left coronary artery.

TASK number 52.

1 to Bakulev duct is dissected between the two clamps, ends sutured vascular continuous seam;

 2 endovasal embolization of the ductus arteriosus.

TASK number 53

Mezharterialnye anastomoses between the left subclavian artery and the left pulmonary artery Bleloku-Taussig. Anastomoses bypassing the heart kavapulmonalny anastomosis.

TASK number 54.

Mitral commissurotomy. Left-sided anterolateral thoracotomy to IV intercostal space on okologrudinnoy to the anterior axillary line.

TASK number 55.

After the left atrial appendage.

TASK number 56.

Symptom Kudasov.

TASK number 57.

Left-sided anterolateral thoracotomy. In the longitudinal direction, to avoid damage to the left phrenic nerve.

TASK number 58.

The thickness and condition -predserdy and ventricles. Atrial wall often sutured obvivnym seam ventricles - two-lane obvivnym or U-shaped synthetic suture thread in atraumatic needle.

TASK number 59.

Puncture of the pericardium by the method of Marfan or Larrey's.

TASK number 60.

Opening the pericardium pericardiotomy for VM Mints or Bakulev.

TASK number 61.

Pneumonectomy. Right-sided anterolateral thoracotomy.

TASK number 62.

Lobar lobectomy. Right-sided posterolateral thoracotomy.

TASK number 63.

It is necessary to apply an occlusive dressing sealed. Primary debridement of the chest wall if necessary - take in a light wound suturing open pneumothorax.

TASK number 64.

Subperiosteal resection of 1-2 ribs on the residual cavity with the removal of the parietal pleura, fistula excision and suturing bronchial stump mattress suture. Tamponade cavity in the anterior flap of the pectoralis major muscle in posterior - wide on the leg muscles of the back

TASK number 65.

In severe the patient's condition abscess opened simultaneously by pre-linking the periphery of the wound of the parietal and visceral pleura.

The topography of the anterior abdominal wall and hernia surgery

TASK №1.

Pathogenic:

1 increased intra-abdominal pressure;

2, "the weakness of the connective tissue» SY Doletsky - a violation of the formation of connective tissue in various stages of embryogenesis.

Anatomical:

1 high inguinal period;

2 lateral inguinal fossa;

3 deep inguinal ring in the rear wall of the inguinal canal fibrous ring in the transverse fascia at the beginning of the funnel transverse fascia;

4 superficial inguinal ring in the front wall of the inguinal canal in the aponeurosis of the external oblique abdominal muscles.

TASK number 2.

Pathogenic: Pathogenic:

1 increased intra-abdominal pressure;

2, "the weakness of the connective tissue» SY Doletsky - a violation of the formation of connective tissue in various stages of embryogenesis.

Anatomical:

1 medial inguinal fossa;

2 break the back wall of the inguinal canal lateral fascia due to its degenerative changes.

TASK number 3.

Front. Anterior to the spermatic cord.

TASK number 4.

Anterior to the spermatic cord by individual interrupted sutures to the inguinal ligament stepping back 5 mm from its rear edge hem the top flap of the aponeurosis of the external oblique abdominal muscles with the lower edges of the internal oblique and transverse muscles in the pitch dark inside the re-capture the edge of the top flap of the aponeurosis, and only then sewn groin bundle for connection of uniform fabrics: fascia and the inguinal ligament. By introducing the tip of the nail phalanx of the little finger in the newly formed hole sure how free is the spermatic cord. The lower fascia flap is placed on top and fixed with a second row of stitches. Check - without prejudice to whether the spermatic cord. The wound was sutured.

 TASK number 5.

Creating a hernia at the site of the gate musculoaponeurotic layer of the abdominal wall performs a supporting function of the postoperative scar. While maintaining high availability of intra-abdominal pressure scar is a prerequisite to a recurrence of the hernia.

TASK number 6.

When portal hypertension is increased pressure in the portal vein anastomoses formed portocaval front group parietal anastomoses. One scheme: gate Vienna - umbilical vein - kavakavalnye anastomoses of the anterior abdominal wall. The sharp expansion of portocaval anastomoses in the umbilical area is called "the head of Medusa."

TASK number 7.

 Bleeding occurred as a result of injuries right inferior epigastric artery branch of the external iliac.

TASK number 8.

When you select the hernia sac in the femoral hernia and femoral plastic ring has a risk of injury of the femoral vein, which is the lateral wall of the femoral canal.

TASK number 9.

The right inferior epigastric artery. A hematoma is localized between the rear surface of the rectus and transverse fascia.

TASK number 10.

The skin, subcutaneous tissue, superficial fascia, the fascia is a private, white line of the abdomen, intraperitoneal fascia, preperitoneal tissue, parietal peritoneum.

TASK number 11.

5 groups of cuts:

 1. longitudinal, vertical;

2. oblique;

 3. corner;

 4. cross;

 5. combined.

In carrying out cuts in the epigastric, srednechrevnoy, consider the location of abdominal langerovskih lines.

TASK number 12.

Appendectomy. Oblique incision between the outer and middle thirds of a line connecting the anterior superior iliac spine to the umbilical ring. Third perpendicular section - is above this line, 2/3 - below. Layers: skin, subcutaneous fat, superficial fascia (2 sheet), a private fascia, external, internal oblique and transverse muscles, the transverse fascia, preperitoneal tissue, parietal peritoneum.

TASK number 13.

Weaknesses: groin, inner ring femoral, umbilical ring, the linea alba, the obturator foramen, lumbar region (Petit triangle, rectangle Lesgafta-Grunfeld) spigelieva (semilunar) line.

TASK number 14.

Layered topography: the skin, subcutaneous tissue, superficial fascia, preperitoneal tissue, peritoneum. Vagina rectus muscle below the navel is formed: the front - three broad sheets of aponeuroses muscles of the abdominal wall, behind - the transverse fascia.

TASK number 15.

The skin, subcutaneous fat, superficial fascia, own fascia, the fascia and the front sheet of the outer inner obliques, rectus abdominis, rear fascia piece of the internal oblique and transverse leaf fascia of the abdominal muscles, the transverse fascia, preperitoneal tissue, peritoneum.

TASK number 16.

Portokavakavalny anastomosis upper epigastric superficial vein (branch of the superior vena cava), inferior epigastric Vienna (branches of the inferior vena cava), umbilical Vienna (portal system). Congestion - as a result of heart failure and a block in the portal system.

TASK number 17.

Toupee edges of the internal oblique and transverse abdominal muscles - top and pupartovoy (groin) ligament - below. Forms: slit-shaped, round, oval, triangular.

TASK number 18.

Main elements: the hernial sac, the hernial ring, hernial contents, shell of the hernia sac. After the medial inguinal fossa (medially) and external inguinal ring (outwards).

TASK number 19.

Steps: quick access, processing of the hernia sac, plastic inguinal canal.

TASK number 20.

Through external inguinal fossa, the internal inguinal ring, inguinal canal, the external inguinal ring into the scrotum. Walls: Upper - free edges of the internal oblique and transverse abdominal muscles; lower - inguinal ligament; Front - aponeurosis of the external oblique abdominal muscles; back - transverse fascia

TASK number 21.

Cut above the inguinal ligament 2 cm toward the pubic tubercle. Layers: skin, subcutaneous fat, fascia surface (sheet 2), aponeurosis of the external oblique abdominal muscles (anterior wall of the inguinal canal).

TASK number 22.

Originally opened the hernial sac, fixed content turnstile, and then just cut by the front wall of the inguinal canal and the external inguinal ring.

TASK number 23.

Hernia always oblique. In children, the inguinal canal is not opened. Excised only the proximal portion of the hernia sac (processus vaginalis of the peritoneum).

TASK number 24.

Bodies: The cecum with the vermiform appendix, sigmoid colon, the ascending and descending parts of the colon, bladder, female genital organs (ovaries, tubes, uterus).

Features hernia repair - only part of the excised hernia sac represented by the parietal peritoneum, visceral peritoneum sewn to the adjacent body of the hernia sac with the remnants of remote parietal peritoneum and reduce a body to its original location.

TASK number 25.

Femoral hernia. Unlike inguinal hernia, located below the inguinal ligament, smaller does not fall into the scrotum.

TASK number 26.

Through the vascular lacuna, rarely through the muscle (hernia Gesselbahera). The walls of the femoral canal: the front - the top edge of the crescent-shaped fascia lata; lateral - femoral Vienna; posterior-medial - a comb-iliac fascia. The walls of the inner ring of the femoral: front - inguinal ligament; behind - a comb (Cooper) ligament; outside - lacunar (zhimbernatova) ligament; inside - the vagina femoral vein; Abdominal - transverse abdominal fascia. Outside femoral ring - oval fossa (hiatus saphenus) limited self-leaf sheets surface fascia of the thigh (fascia lata).

TASK number 27.

Obturator artery departs from the inferior epigastric (epigastric), and is located behind the inguinal ligament (bottom, top). It can damage the expansion wounds and cause severe bleeding.

TASK number 28.

Steps:

1. Online access (longitudinal, transverse, oval);

2. Treatment of hernia sac (selection, opening the hernia sac, reposition the contents of the hernia sac into the abdominal cavity, suturing and bandaging neck, crossing and removing the hernia sac;

3. Plastic umbilical ring.

TASK number 29.

Through slot-like gaps along the linea alba.

Procedural steps:

1. Online access;

 2. Treatment of hernia sac;

3. Plastic hernial ring (slit-shaped gaps in the seams of the white line of the abdomen.

TASK number 30.

Weak spots:

1. Petit Triangle above the crest of the ilium (left and right);

2. Quadrilateral Lesgafta-Grunfeld under XII edge (right and left).

Steps:

1. Online access (cut);

2. Treatment of hernia sac;

 3. Strengthening the weak spots by suturing.

The operations on the abdominal organs

TASK number 1

The internal strangulated hernia abdominal hernia lower duodenal recess Treitz. The contents of the hernia sac is a small section of the edge protivobryzheechnogo bowel parietal Litreevskim infringement. Hernia can simulate a perforated ulcer, acute cholecystitis, acute pancreatitis, intestinal infarction.

TASK number 2.

Right mesenteric sinus walls are laterally - ascending colon, medial and bottom - the mesentery of the small intestine, from the top - the mesentery of the transverse colon, the back - parietal peritoneum, omentum -large front.

Yes, between the root of the mesentery of the transverse colon and the initial part of the jejunum.

TASK number 3.

The recto-vesical recess pelvic organs in men and to the right mesenteric sinus between the root of the mesentery of the transverse colon and the initial part of the jejunum.

TASK number 4.

 Thromboembolism superior mesenteric artery at the level of iliac artery colonic 52.8% of MP Belyayev.

TASK number 5.

The bending of the left transverse, descending and sigmoid colon and upper rectum

TASK number 6.

. Sigmoid colon. In the presence of its long mesentery, or reverse "mirror" the provisions of situs viscerum inversus.

TASK number 7.

When retroperitoneal position of the appendix. Cut the parietal peritoneum on the right lateral channel, retreating 2-3 cm from the cecum. Mobilize the cecum to access its back wall.

TASK number 8.

Diverticulitis - inflammation of the ileal Meckel diverticulum process, which occurs in 1-2% of cases.

TASK number 9.

Strand in place enteric umbilical yolk duct. Dissection cord ligation with its ends.

TASK number 10.

In the presence of enteric contents into the abdominal cavity revision starts with the small intestine, and then examine all the organs of the abdominal cavity adjacent organs of the retroperitoneal space and pelvis. Landmarks during the inspection of the lower portion of the floor of the abdominal cavity:

1 lateral channels

2 roots bryzheek guts: a thin, transverse colon, sigmoid colon

3 fixed small bowel dvenadtsatiperstno- skinny bend - the landmark of the initial part of the jejunum ileocecal angle - the landmark terminal part

ileum

4 fixed parts of the colon right, or liver; Left or splenic flexure.

TASK number 11.

Resect all of the small intestine, to restore the continuity of the body creating an anastomosis "end-to-end" or "side-to-side."

TASK number 12.

The wound gut to prevent stenosis sutured laterally classic two-lane seam: first row - screwing seam Schmid furrier absorbable material polisorb, Vicryl, Dexon, Maxon, PDS, catgut; second row - sero-muscular junction Lambert nonabsorbable suture material polypropylene monofilament nylon, silk.

TASK number 13.

Regional nodal single-row sero-muscular-submucosal suture knots with guts inside. The edges of the wound is sewn intestinal submucosa by then serosa with vykoli in intestinal cavity.

TASK number 14.

Wound Closure stomach gastrorafiya with classical double-row suture

Alberta: first row - screwing seam Schmid furrier,

 Second - aseptic serous-muscular junction seam Lambert.

TASK number 15.

With derzhalok wound intestine and transferred to the transverse seam sutured classic DIL.

TASK number 16.

The surgeon must resect the small intestine through a defect of the mesentery and impose entero-enteroanastomoz "side-to-side."

TASK number 17.

Perforated typhoid ulcer need to take in. Impose sero-muscular purse string suture that peritoniziruet omentum flap on the "stem."

TASK number 18.

Form anastomosis in an oblique direction, or using all the sections in the form of a side splitting racket of all colon protivobryzheechnomu on edge by the amount of the width of the colon.

TASK number 19.

Sigmoid colon on a long mesentery. The cecum is a worm-like appendage can be shifted to either the top or laterally.

TASK number 20.

 Meckel's diverticulum ileal appendix must be removed. It was excised at the base at an angle of 45 ° in the direction kosopoperechnom followed by suturing the wound two-lane cross-section of the intestinal suture. When diverticulitis involving the ileum wall produces a wedge resection of the body, followed by suturing the wound.

TASK number 21.

Do not sutured mesentery of the transverse colon anastomosis in the area, which led to the formation of internal abdominal hernia.

TASK number 22.

"Spur" - fold the rear wall of the sigmoid colon - impedes the flow of feces from leading department in the outlet.

TASK number 23.

Perforated stomach ulcer is sutured:

1 in the case of its complications peritonitis 6 hours after perforation;

2 young patients;

3, with a serious condition of the patient due to concomitant diseases of the cardiovascular, respiratory failure.

Ulcer sutured laterally 2-row stitch: 1st row - 2-4 absorbable suture thread Dexon synthetic, polyglycolide through all the layers of the wall; 2nd - sero-muscular nonabsorbable synthetic filament nylon, dacron. Above the line of stitches deksonovoy thread fix the gland. If the edges of the ulcer is very dense, they dissected them sparingly to provide a better healing.

Peritonization seam line is carried out in order to prevent its failure presence of perifocal inflammation around the ulcer and peritonitis - inflammation of the serous membrane - are responsible for the fragility of the stomach wall.

Tamponade perforated holes Gland "leg" of PN Polikarpov is: catgut thread with two needles at the ends sewn edge of the gland. Then, each of the needle pierce the wall of the stomach through a perforated hole inside outwards. Vykoli produce at a distance of 2 cm from the edge of the hole. When tightening the ligatures omentum flap enters the opening, closing it like a cork. The threads tied into the knot. Small fold seam through the gland cover and the hole closed. The folds of the gland is fixed to the "Health" section of the wall of the nodal catgut sutures. In the absence of signs of peritonitis at least 6 hours after perforation performed gastrectomy.

TASK number 24.

The left-hand section of transrectal advisable to start at 2 - 2.5 cm down from the costal arch.

TASK number 25.

From the upper third of the rectum into the portal vein. From the remaining departments - in the inferior vena cava. In the upper part of the colon has porto-caval anastomosis. Varicose veins of the rectum (hemorrhoids) has arisen as a result of the block in the portal vein (cirrhosis).

TASK number 26.

Gastropexy - fixing the front wall of the stomach around the perimeter of the fistula to the parietal peritoneum and aponeurosis of anterior abdominal wall. Between the wall of the stomach and the abdominal wall is formed spike, eliminating leakage of gastric contents into the abdominal cavity between the outer surface of the drainage pipes and channels for pipe limited serous membrane of the stomach wall. It also provides reliable fixation of the wall body excluding its separation with swelling or overflow food.

TASK number 27.

Short loop 10-15 cm from the duodenal-lean bend. In the vertical axis transverse to the direction of the stomach.

TASK number 28.

Selective vagotomy on Letarzhe - the intersection of the branches of the vagus trunks going to the body of the stomach - allows you to turn off the first phase of slozhnoreflektornuyu gastric digestion and, consequently, reduce the secretion of gastric juice. As a result of violation of the innervation of the stomach there is a reduction of its tone, there is a spasm of the gatekeeper, making it difficult to evacuate the contents of the duodenum. This requires operations that promotes gastric emptying, i.e. draining operations.

TASK number 29.

Finger compression of the hepatic duodenal ligament own hepatic artery and portal vein between the thumb and inserted into the gland opening index finger of the left hand, or when applied to a bunch of resilient clamping. Duration compression of hepatic duodenal ligament no more than 15 minutes.

TASK number 30.

Transumbilikalnaya portogepatografiya allowing contrast intrahepatic vein 3rd order and smaller. To produce a percutaneous puncture splenoportography spleen, in which there is a risk of rupture of the body and internal bleeding.

TASK number 31.

Application probe Blackmore, which provides compression inside submucosal venous plexus esophagogastric junction.

TASK number 32.

Splenitis-renal venous anastomosis.

TASK number 33.

1 termination of the activation of proteolytic enzymes, and further destruction of the gland to create the conditions for the outflow of pancreatic juice

2 ensuring the conditions for a discharge of the sequestered

cancer sites and exudate

3 elimination of inflammation in the biliary tract.

TASK number 34.

After gastrointestinal ligament that access eliminates the spread of fluid in the lower abdomen. For insulation packing bags from the free edge of the abdominal gastrointestinal ligament sutured to the edges of the wound laparotomic omentobursostomiya.

TASK number 35.

Cholecystectomy "from the bottom" antegrade, since the adhesions are complicated selection and verification of the extrahepatic bile ducts and blood vessels in the hepatic duodenal ligament and the gate of the liver.

Disadvantages cholecystectomy "from the bottom" are:

1 possibility of migration of stones from the gallbladder into the common

bile duct

2 large trauma and blood loss

3 the risk of infection of the abdominal cavity is damaged hollow bodies involved in adhesions to the gallbladder duodenum, right bend

colon.

TASK number 36.

During cholecystectomy was mistakenly tied with the common bile duct. Operations external or internal drainage of the extrahepatic biliary tract.

TASK number 37.

One type of internal drainage of the extrahepatic biliary tract biliodigestive anastomosis, particularly supraduodenal choledochoduodenostomy. When cicatricial stenosis lesser extent shows endoscopic papillosphincterotomy.

TASK number 38.

1 after cholecystectomy disrupts the normal topographic anatomical relationships bodies;

2 formed between the spikes.

TASK number 39.

When obstructive jaundice treatment of choice is endoscopic retrograde

holetsistopankreatografiya with endoscopic papillosphincterotomy; endoscopic removal of stones and transnasal drainage of the common bile duct.

If you can not perform these operations, it is advisable to carry out percutaneous transhepatic drainage of the gallbladder.

TASK number 40.

Internal bleeding due to rupture of the spleen. Ensure breath hold during the puncture of the spleen.

TASK number 41.

To avoid crushing the tail of the pancreas and the development of post-traumatic pancreatitis and bleeding as a result of the destruction of the fragile wall of the splenic vessels.

TASK number 42.

Disturbed blood circulation in the splenic flexure of the transverse colon, descending colon department, and the proximal part of the sigmoid colon. Boundaries:-proximal splenic angle of the transverse colon, distal - proximal colon.

TASK number 43.

The contents of the stomach has got into the packing bag. Intra-abdominal access: 1. Through the gastrointestinal ligament; 2. Through the mesentery of the transverse colon; 3. In a small gland wall. In this case, there was a continuous digestive pancreatic ligament omental that divided into two separate cavities (the threshold and the actual cavity).

TASK number 44.

The infection spread by the right-side channel. The left side channel does not communicate with the upper abdomen because of phrenic-poperechnoobodochnoy splenic ligament in the angle of the transverse colon, so abscess originated right.

TASK number 45.

First, inspect the superior mesenteric artery in the right sinus and lower mesenteric mesenteric artery in the left mesenteric sinus.

TASK number 46.

Removes the additional 50 cm colon (30 cm proximal and distal to 20 cm). Steps:

1. laparotomy;

2. Mobilizing the intestine;

3. bowel resection;

4. anastomosis.

Types of anastomosis: an end-to-end; side-to-side; end to side.

The order imposing intestinal sutures:

1. serous-muscular (Lambert);

2. Through (Jolie);

3. Through (Schmid);

4. serous-muscular (Lambert);

TASK number 47.

Palliative surgery - gastrostomy. Species: tubular and gubovidny fistula.

Procedural steps: by Witzel:

1. The upper median laparotomy;

2. Inserting a tube into the anterior wall of the stomach (the end of the tube facing the outlet of the stomach);

3. Imposition of purse-string suture in the opening of the stomach through a tube which is introduced into the stomach;

 4. Fixing the wall of the stomach to the abdominal wall and removing the tube to the outside;

5. Closure of the surgical wound.

TASK number 48.

Operations - gastroenteroanastomosis front (short loop), rear (on a long loop with additional intestinal anastomosis according to Brown). The order of stitches:

1. Seam Lambert;

2. Seam Joly;

3. Seam Schmid;

4. seam Lambert.

TASK number 49.

Steps:

1. laparotomy;

2. Mobilizing the intestine;

3. bowel resection;

4. anastomosis "end to end".

The order of stitches:

 1. Seam Lambert;

 2.Shov Joly;

3. Seam Schmid;

4. seam Lambert;

5. Seam Lambert;

6. Seam Lambert.

TASK number 50.

Block in the portal system, which leads to expansion and rupture of esophageal varices. In the area of ​​the abdominal esophagus existing port-caval anastomosis.

TASK number 51.

It is necessary to tie up the iliac artery colonic.

 Anastomosis "end to side."

The order of stitches:

1. Seam Lambert;

2.Shov Joly;

3. Seam Schmid;

 4. seam Lambert;

5. Seam Lambert.

TASK number 52.

Typical operation Billroth-II in the modification of Hofmeister-Finsterer.

Steps:

1. laparotomy;

2. Mobilisation of the stomach;

3. Ligation of the left gastric artery;

4. Withdrawal of the jejunum to the upper floor;

5. Resection of 12 duodenal ulcer and stump treatment;

 6. gastrectomy;

7. Imposition of the gastrointestinal anastomosis "end to side";

8. stitching wounds.

TASK number 53.

1. Own hepatic artery, gate Vienna;

2. Located in hepatocellular 12- bundle;

 3. Compression of the blood vessels in the liver-12- bundle by holding the finger hole through the packing or by compression of the liver tissue;

4. U-shaped seams, seam Kuznetsova Pensky-seam Jordan Bregadze weld seam Oppel and others.

TASK number 54.

The basis of the structure of segmental liver Quinn put Glisson triad division within the liver. Glisson triad-the common bile duct, gate Vienna, own hepatic artery, located in hepatoduodenal bundle.

Segments with diaphragmatic surface: 7 8 1 2 6 5 4 3

Segments with the visceral surface 6 5 4 3 7 1 2

TASK number 55.

12-duodenum, jejunum, ileum, blind to the vermiform appendix, the ascending portion and a portion of the transverse colon.

TASK number 56.

 Left mesenteric sinus, pelvic cavity, right and left side channels, hepatic bag.

TASK number 57.

Extraperitoneal damaged part of ascending or descending colon department.

TASK number 58.

Midsection - from the middle of the distance between the xiphoid process and navel ring until the middle of the distance between the navel and symphysis pubis, bypassing the umbilical ring on the left. The right side of the channel formed by the ascending portion of the colon and the front-side wall of the abdomen. Right mesenteric sinus formed by the ascending portion of the colon (from the outside), transverse colon and its mesentery (top), mesentery (medially). Damaged superior mesenteric artery, hematoma in the retroperitoneal space.

TASK number 59.

Rana should be given a transverse direction. Sew up the wound. First row - through a seam on top of nego- two rows of sero-muscular sutures (Lambert).

TASK number 60.

Options for the location of the appendix: in relation to the base of the appendix - up (obstructive), down (breech), outward (lateral) inwards (medial), behind the cecum (retrotsekalnoe), retroperitoneal (retroperitoneal). Retrograde appendectomy: Unlike conventional appendectomy selection process starts from the base.

TASK number 61.

Gate Vienna is formed at the confluence of the splenic and superior mesenteric veins, sometimes involved in the formation and inferior mesenteric Vienna. Gate Vienna lies in hepatocellular 12- conjunction deeper common bile duct (right) and his own bile artery (left).

TASK number 62.

Intra-access: through the gastrointestinal ligament, mesentery of the transverse colon, the small gland on top - celiac trunk, from below - superior mesenteric vessels

TASK number 63.

Cholecystostomy.

Types of operations on the gall bladder: cholecystostomy, cholecystendysis, cholecystectomy, various types of anastomoses.

 The projection of the gall bladder to the anterior abdominal wall - the point of intersection with the costal arch line running from the upper left iliac spine through the umbilical ring or parasternal line with the horizontal line connecting the edges of the X ribs. Online access for Fedorov, Kocher.

 Stages cholecystostomy:

 1. laparotomy;

2. Inspection of the gallbladder;

 3. Puncture of the gallbladder;

4. Opening of the gallbladder;

5. Formation of a fistula (gubovidnogo tubular);

6. stitching wounds.

TASK number 64.

Cholecystectomy from the bottom and from the cervix.

 Procedural steps:

1. laparotomy;

2. Inspection of the gallbladder;

3. Puncture of the gallbladder;

4. Removing the gallbladder through a wound with a clamp Luer;

 5. Cut the serous membrane of the bladder outlet and a selection of his;

6. cystic artery ligation;

7. ligation of the cystic duct and the intersection;

 8. Removal of the gallbladder;

9. Drainage and stitching wounds.

The boundaries of the triangle Kahlo: Right - the cystic duct; Left - the common hepatic duct; top - cystic artery. Triangle Kahlo used for finding the cystic artery.

TASK number 65.

Bile duct: the right and left hepatic ducts, common hepatic, cystic, common bile duct. On the back surface of the descending part of duodenum 12 on the big papilla opens increasingly common bile duct with pancreatic duct.

TASK number 66.

Divisions 12 duodenal ulcer: an upper horizontal, top-down, bottom horizontal, upward. Ip is the upper horizontal department mezoperitonealno and retroperitoneal - downward, upward and lower horizontal sections. Syntopy 12 duodenal ulcer: the top and front - liver and gall bladder; Bottom - transverse colon, small intestine and its mesentery; front - transverse colon; behind - the gate of the right kidney; laterally and front - hepatic flexure of the transverse colon; medially - the head of the pancreas.

TASK number 67.

Retroperitoneal space. Kocher incision - 6-10 cm by 1 cm outwards from the 12 duodenal ulcer. 3.4 In order to mobilize the department intersect the upper duodenal ulcer fold and separates mesocolon (for Klermanu).

TASK number 68.

Right, left liver, common hepatic duct, cystic duct, common bile duct.

Holetsistoduodenostomiya, holetsistogastrostomiya, enterocholecystostomy, choledochoduodenostomy and others.

TASK number 69.

Online access: oblique incision parallel to the left edge of the costal or thoracoabdominal. Splenic vessels, arteries and veins, and cross tie closer to the gate of the spleen.

TASK number 70.

Vagotomy: total, selective, selective proximal. The clinic utilizes the selective proximal vagotomy selective. If it persists Latarzhe nerve innervating the antrum.

TASK number 70.

Unnatural passage. Perfused by the sigmoid arteries (3-4). Single-barreled, dvuhstvolny, single-stage, dvuhmomentnaya operation Maidla. Procedural steps:

 1. Laparotomy oblique incision in the left iliac region;

 2. suturing the peritoneum to the skin at the wound site;

3. Withdrawal of the sigmoid colon with sutures between the leads and a lead lap at the mesenteric edge;

4. Fixing colon to the peritoneum and skin in wounds;

5. Dissection of the transverse colon cut from one edge to the other.

The topography of the retroperitoneum and pelvis

TASK number 1.

12-duodenum, pancreas, kidney, ureter. Extraperitoneal (vertical - Simon, horizontal - Pean, oblique - Fedorov, Bergmann-Israel).

TASK number 2.

Access by Bergmann-Israel: a section along the bisector of the angle formed by the edge 12 and the muscle - spinal erectors. Layers: skin, subcutaneous fat, superficial fascia, own fascia, a broad back muscles and external oblique muscle of the abdomen, posterior inferior serratus, internal oblique, transversus abdominis, square loin muscle, intraperitoneal fascia, private fiber retroperitoneal, retroperitoneal fascia (pre- and pozadipochechnaya), adipose capsule, fibrous capsule of the kidney.

TASK number 3.

Quadrilateral Lesgafta-Grunfeld. Formed: top - serratus posterior inferior, top and edge lateralno- 12, below - the upper edge of the internal oblique abdominal muscles medially - extensor muscles of the back. The space is covered by a broad back muscles. Petit Triangle. Borders: from below - the iliac crest, above and medially - edge broad back muscles at the top and laterally - the edge of the external oblique abdominal muscles.

TASK number 4.

Access by Fedorov: layers - skin, subcutaneous fat, superficial fascia, own fascia, a broad back muscles, the external oblique muscle of the abdomen, the top - rear lower serratus, medially - sterno-lumbar fascia, the muscle - rectifier back, laterally - internal oblique, transverse abdominal muscles, fascia intraperitoneal, retroperitoneal tissue site. Dissect the kidney capsule: the outer, fat, fibrous.

TASK number 5.

Procedural steps:

1. Operational access Fyodorov;

2. Removing the kidney into the wound;

3. Processing of vessels and the removal of the kidneys;

 4. Introduction of drains;

5. Closure of the surgical wound.

Leg kidney presented renal artery and vein, wash basin or ureter. Artery, Vienna, ureter. Installation of drainage in the perirenal, own retroperitoneal and subcutaneous tissue.

TASK number 6.

The patient on the healthy side, on the platen. The points of injection - the top of the angle formed by the rib 12 and the rectifier myshtsey- back. Direction - perpendicular to the surface of the skin. Three layers of tissue: private retroperitoneal fat, perirenal, perienteric.

TASK number 7.

Used muscle flap from the big lumbar mytsy, which is held in the subcapsular tunnel end flap is rolled over the edge of the XII. Method Gorash, Fedorov, Pytel, Lopatkina.

TASK number 8.

By the number of kidney - one, two, three, four. In form - L-shaped, S-shaped, horseshoe-shaped, galetoobraznye. By location - pelvic, iliac, abdominal, floating kidney.

TASK number 9.

Syntopy right kidney: top - the adrenal gland, liver; bottom - the hepatic flexure of the transverse colon, the front inside - 12 duodenal ulcer. In diseases of the duodenum 12 may involve the urinary tract kidney.

TASK number 10.

Kidney has five segments: apical, anterior-upper, front-middle, lower front, zalohanochny. It is based on the division of the renal artery. Operation - segmentectomy. Sutures are U-shaped.

TASK number 11.

Abdominal and pelvic parts. Departments abdominal part: narrowing, lumbar, iliac. Departments pelvic parts: pelvic, nadpuzyrnaya, intramural. Designated restriction: the transition from the pelvis, the transition to the pelvis, intramural (in the bladder wall). Catgut suture anchor without suturing mucosa. The broad ligament to the ureter are adjacent parametrial tissue, uterine artery and tributaries of the uterine veins, the lymph nodes.

TASK number 12.

Mesenteric sinuses (right and left). Retroperitoneal hematoma in the right mesenteric sinus, intraperitoneal right side channel is damaged upper bryzhechnoy artery; left mesenteric sinus, the lateral channel is damaged the inferior mesenteric artery. The branches of the abdominal aorta: the lower diaphragmatic, celiac trunk, secondary adrenal, superior mesenteric, renal, lumbar (4), testicular (ovarian), inferior mesenteric.

TASK number 13.

Two unnamed (iliac, pubic, ischial), sacrum and coccyx. Muscles: internal obturator, pear, lumbar; Bundles: sacroiliac, sacrospinous, sacroiliac Bugrov.

More likely to suffer anterior part. The bones of the pelvis are diploeticheskoe substance, which houses the arterial-venous "lakes." Bleeding in fractures of the pelvis - the type of parenchymal. Intrapelvic blockade: novocaine injected (250-300 ml) at 1 cm medially from the anterior superior iliac axis to a depth of 12-14 cm in the course of guided inner surface of the wing of the ilium.

TASK number 14.

It reported to the retroperitoneal space, anterior abdominal wall, with okoloorgannoy fiber. Parietal cellular spaces (4): 2 side, pozadipryamokishechnoe, predpuzyrnoe. Sections anterior abdominal wall extraperitoneal: longitudinal (for Napalkova), transverse (according to Fedorov). Counteropening on Buyalsky-MakUorteru - 7-8 cm incisions on the inside of the thigh or below 2 cm parallel to the inguinal-femoral fold. Stupidly raslaivayutsya muscles (leading) and held forceps through the thickness of the outer and inner sphincter.

TASK number 15.

Inflammation parameters (parauterine fiber). Visceral cellular spaces: parauterine, paravesical, okolopryamokishechnoe, okoloprostaticheskoe. Pathways pus: from the pelvic cavity in the retroperitoneal space, through proper and Subpiriforme space in the gluteal region, ischiorectal hole. Sections of Pirogov - lengthwise and 2 cm above the inguinal ligament. Counteropening of Kupriyanov (in genitourinary diaphragm - between sciatic-cavernous and bulbous-cavernous muscles) Starkov-Krayzelburdu (in ischiorectal pits, clinging to the ischial tuberosity to the medial side through the levator muscle anal rectum).

TASK number 16.

About - pozadipryamokishechnaya and fiber. Incisions semi-oval 2 cm lateral to the anus. Pus spreads into the recto-sciatic hole, breech cellular spaces (under the gluteus maximus) and Subpiriforme through a hole in the pelvic cavity.

TASK number 17.

At the entrance to the pelvic cavity ureter lies in front of the uterine artery, at the level of cervical uterine artery lies in front of the ureter. The proximity of these structures can lead the operations in the uterus damage to the ureter.

Prompt access: the lower median laparotomy incision Pfanenshtilya; interiliakalny incision black; Vaginal: front and rear colpotomy.

TASK number 18.

In the back Douglas space (rectouterine space). Puncture through the posterior vaginal fornix. The peritoneum covers the recto-sigmoid rectum, uterus with appendages bottom of the bladder. Intrapelvic fascia, descending down from above and behind covers levator muscle anal rectum, front - deep transverse perineal muscle. The same fascia ligament forms a pair, coming from Krestcy to the pubic joint (krestsovogo-rectal, rectouterine, vesico-uterine, pubic-cystic).

TASK number 19

Pelvic diaphragm - muscle lifting the anus (ilio-coccygeal, pubic-coccygeal, coccygeal, external sphincter, rectum).

Urogenital diaphragm - deep transverse perineal muscle, fascia two sheets, two ligaments (ligament transverse perineal ligament pubic arc). Damaged elements of the pelvic and urogenital diaphragm.

TASK number 20.

Floors:

 peritoneal,

 subperitoneal,

 subcutaneous.

The risk of septic, urinary streaks in the visceral and parietal cellular spaces of the pelvis in the retroperitoneal fat.

TASK number 21.

The increased size of the uterus in the obturator nerve pressed against the inner surface of the pelvis in the obturator canal.

TASK number 22

Steps:

1. The lower median laparotomy;

2. Withdrawal from the abdominal cavity of the fallopian tube to the ovary;

3. Overlap two clips on the end of the tube and the mother voronkotazovuyu bunch;

4. Drainage of the abdominal cavity;

5. The wedge resection of the uterine tube department and the intersection of the ligaments of the ovary;

6. clipping the broad ligament of the uterus and removal of the tube;

7. peritonization stump pipe round ligament of the uterus;

8. Closure of the surgical wound.

It is necessary to tie up in the angle of the branches of the uterine arteries of the uterus and ovarian artery in voronkotazovoy bundle.

TASK number 23.

Place the introduction of novocaine during pudendal blockade - midway between the ischial tuberosity and the anus to a depth of 3-4 cm. The infection of the recto-ischial fossa along the pudendal neurovascular bundle can hit to deep breech cellular spaces and through the hole into the cavity Subpiriforme pelvis.

TASK number 24.

 Steps:

1. extraperitoneal midline incision of the anterior abdominal wall;

2. Exposure of the urinary pyzyrya as high as possible;

3. The imposition of two derzhalok on the wall of the bladder;

4. Opening of the bladder;

5. Removal of foreign body;

6. Closure of the surgical wound bladder double-row suture without suturing mucosa.

TASK number 25.

Midline 2 cm above the symphysis pubis, strictly perpendicular to the skin surface. Layers: skin, subcutaneous fat, superficial fascia, own fascia, the linea alba, the transverse fascia, parietal predpuzyrnaya fiber, predpuzyrnaya fascia, visceral predpuzyrnaya tissue, urinary bladder. With the high location of the bladder there is a risk of damage to the peritoneum. The prostate is palpated through the anterior wall of the rectum.

TASK number 26.

Departments: prostatic, membranous, bulbous, cavernous, at the head of the penis. Catheterization is made soft or metal catheter based channel bends.

TASK number 27.

Operations on Winckelmann, Bergman. Stages operations Winckelmann a section above the groin to the root of the scrotum.

1. Cut the skin, fleshy shell;

2. Removing eggs in the wound;

3. Dissection of its own shell;

 4. Screwing out eggs and stapling sheets of the tunica vaginalis testis from the opposite side;

5. Putting testicles into the scrotum;

6. stitching wounds.

Layers: skin, fleshy shell, the outer fascia of the spermatic cord, muscle lifting egg, interior fascia of the spermatic cord, a private shell egg. Hydrocele does not occur again due to liquidation during the operation of the closed cavity and absorption of serous fluid fleshy shell eggs.

TASK number 28.

Vents from the lymphatic vessels of the uterus, the uterus form a single system of lymphatic vessels to the bladder and rectum. End with receptacles in the nodes located along the iliac artery to the bifurcation of the aorta and inferior vena cava.

TASK number 29.

Pielotomiya. Front and rear pielotomiya. Online access for Fedorov. Steps: 1. Online access; 2. Removing the kidney into the wound; 3. The imposition of two derzhalok on the pelvis; 4. Opening pelvis longitudinal section; 5. Revision of the renal pelvis, ureter; 6. Closure pelvis catgut without stitching mucosa; 7. Closure of the surgical wound.

REGISTRATION SHEET CHANGES IN WORKING PROGRAMME FOR DISCIPLINE \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_20/20 SCHOOL YEAR

The training complex is amended as follows:

1.

2.

3.

Teaching Materials reviewed and approved at a meeting of the department of "\_\_\_" \_\_\_\_\_\_\_\_\_\_ 2020

Head of the Department \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_S.G. Suhanov