FEDERAL STATE BUDGET EDUCATIONAL
HIGHER EDUCATION INSTITUTION
"ROSTOV STATE MEDICAL UNIVERSITY"
MINISTRY OF HEALTH OF THE RUSSIAN FEDERATION

FACULTY OF TREATMENT AND PREVENTION

Appraisal Fund

in the discipline "General Surgery"

Specialty 05/31/01 General Medicine

2023

1. Form of intermediate certification in the 5th semester - *test* **, in the 6th semester –** *exam* .

2. Type of intermediate certification: *V5th semester test based on the amount of points scored in a semester; in the 6th semester there is a three-stage exam, including a computer test control, practical skills, and an oral part (an interview on exam papers, solving a situational problem).*

To assess knowledge during ongoing monitoring and intermediate certification, a point-rating system is used.

No.	Type of events of the current con-troll	Qty event yatiy	Unsuccessful/ Absent	Satisfied	Chorus.	Exc.
Semester 5						
1.	Attending lectures	18	0	1		
2.	Attending classes	18	0	1		
3.	Test control 1	1	0	5	9	13
4.	Test control 2	1	0	5	9	13
5.	Test control 3	1	0	5	9	13
6.	Test control 4	1	0	5	9	13
7.	Oral response (average arithmetic assessment of the teacher for the semester)	1	0	4	8	12
Semester rating			**<60**	**60-70**	**71-84**	**85-100**
Semester 6						
1.	Attending lectures	8	0	1		
2.	Attending classes	16	0	1		
3.	Test control 1	1	0	5	8	10
4.	Test control 2	1	0	5	8	10
5.	Test control 3	1	0	5	8	10
6.	Test control 4	1	0	5	8	10
7.	Essay	1	0	5	8	10
8.	Disease history	1	0	6	eleven	16
	Oral response (average arithmetic assessment of the teacher for the semester)	1	0	5	8	10
Semester rating			**<60**	**60-70**	**71-84**	**85-100**
Exam						
1.	Test control	1	0	12	16	20
2.	Practical skills	1	0	12	16	20
3.	Situational task	1	0	12	16	20
4.	Exam question 1	1	0	12	16	20
5.	Exam question 2	1	0	12	16	20
6.	Additional questions (at necessary)	1-5	0	1	3	5
7.	Questions about missed lectures	1-5	0	1	3	5
Examination assessment			**<60**	**60-70**	**71-84**	**85-100**

The final grade entered in the grade book and examination sheet is calculated as the arithmetic average of the sum of the 5th semester points, the sum of the 6th semester points and the sum of examination points with subsequent conversion to a 5-point system.

3. List of competencies formed by the discipline or in the formation of which discipline is involved

Code computer tendencies	Content of competencies (results of mastering OOP)	The content of the elements of competencies, in the implementation of which the discipline
OPK-5	Ability and willingness to analyze the results of one's own activities to prevent professional errors.	Able to analyze errors when solving situational problems that simulate the process of diagnosis, treatment and assistance at the stages of medical evacuation of surgical patients
OPK-6	Readiness to maintain medical documentation	I am ready to write an educational history of the disease, knowing the methodology for examining a surgical patient and the chart of the medical history of a surgical patient.
OPK-8	Readiness for medical use of drugs and other substances and their combinations in solving professional problems	I am ready to prescribe groups of medications for the treatment of common surgical diseases, knowing the principles of general and local treatment of a surgical patient
OPK-11	Readiness to use medical devices provided for in the procedures for providing medical care	Ready to apply the main types of soft fixing, therapeutic and protective dressings for common surgical pathologies, use the main types of transport splints, hemostatic tourniquet
PC-1	Ability and readiness to implement a set of measures aimed at preserving and strengthening health and including the formation of a healthy lifestyle, prevention of the occurrence and (or) spread of diseases, their early diagnosis, identification of the causes and conditions of their occurrence and development, as well as those aimed at eliminating the harmful effects of environmental factors on human health	Capable of early diagnosis of common surgical diseases
PK-5	Willingness to collect and analyze the patient's complaints, his medical history, examination results, laboratory, instrumental, pathological, anatomical and other studies in order to recognize the condition or establish the presence or absence of the disease	I am ready to question the patient, objectively examine the main organs and systems, examine the affected organ system using clinical diagnostic methods (palpation, percussion, auscultation), formulate an examination plan (laboratory and instrumental techniques)

PK-6	The ability to determine the patient's main pathological conditions, symptoms, disease syndromes, nosological forms in accordance with the International Statistical Classification of Diseases and Related Health Problems, X revision	Able to diagnose the most common surgical diseases
PK-8	Ability to determine management tactics for patients with various nosological forms	Able to determine the tactics of managing a surgical patient (conservative therapy or surgical intervention)
PK-15	Willingness to teach patients and their relatives basic hygiene measures of a health-improving nature, self-monitoring skills of basic physiological indicators that contribute to the preservation and strengthening of health, and disease prevention	Ready to train patients and their relatives to monitor basic physiological indicators (pulse, blood pressure, diuresis)

4. Stages of formation of competencies in the process of development

educational program

Competence	Disciplines	Semester
OPK-5	Bioethics	3
	general surgery	5.6
	Propaedeutics of internal diseases	5.6
	Radiation diagnostics	6
	Otolaryngology	7
	Urology	7,A
	Dermatovenereology	7,C
	Pediatrics	7,8,9
	Faculty Surgery	7,8,9,A
	obstetrics and gynecology	7,8,9,A
	Neurology, medical genetics, neurosurgery	8
	Occupational diseases	8
	Forensic Medicine	8,C
	Ophthalmology	9
	Childhood infections	9
	Reproductive medicine	9
	Hospital surgery	9,A,B
	Traumatology, orthopedics	A, B
	Infectious diseases	A, B, C
	Anesthesiology, resuscitation, intensive care	IN
	Pediatric surgery	IN
	Outpatient therapy	B, C
OPK-6	Jurisprudence	2
	Assistant to junior medical staff	4
	general surgery	5.6
	Assistant ward and procedural nurse	6
	Assistant doctor (obstetrician-gynecologist)	8
	Assistant physician (surgeon)	8
	Forensic Medicine	8,C

	Public health and healthcare	9
	Assistant doctor (therapist)	A
	Physician assistant at outpatient clinic	A, C
OPK-8	Assistant to junior medical staff	4
	Pharmacology	5.6
	Propaedeutics of internal diseases	5.6
	general surgery	5.6
	Assistant ward and procedural nurse	6
	Otolaryngology	7
	Urology	7,A
	Dermatovenereology	7,C
	Pediatrics	7,8,9
	obstetrics and gynecology	7,8,9,A
	Faculty Surgery	7,8,9,A
	Neurology, medical genetics, neurosurgery	8
	Occupational diseases	8
	VPH, VPT	8
	Assistant doctor (obstetrician-gynecologist)	8
	Assistant physician (surgeon)	8
	Ophthalmology	9
	Childhood infections	9
	Reproductive medicine	9
	Hospital surgery	9,A,B
	Outpatient therapy	A
	Assistant doctor (therapist)	A
	Traumatology, orthopedics	A, B
	Physician assistant at outpatient clinic	A, C
	Infectious diseases	A, B, C
	Phthisiology	IN
	Anesthesiology, resuscitation, intensive care	IN
	Pediatric surgery	IN
	Clinical pharmacology	WITH
OPK-11	Nursing care for surgical patients	1
	General nursing care	2
	Assistant to junior medical staff	4
	Propaedeutics of internal diseases	5.6
	Topographic anatomy and operative surgery	5.6
	general surgery	5.6
	Assistant ward and procedural nurse	6
	Otolaryngology	7
	VPH, VPT	7
	Urology	7,A
	Dermatovenereology	7,C
	Faculty therapy	7.8
	Pediatrics	7,8,9
	obstetrics and gynecology	7,8,9,A
	Endocrinology	7,8,9,A
	Faculty Surgery	7,8,9,A
	Neurology, medical genetics, neurosurgery	8
	Assistant doctor (obstetrician-gynecologist)	8
	Assistant physician (surgeon)	8
	Ophthalmology	9

	Childhood infections	9
	Hospital therapy	9.A
	Hospital surgery	9,A,B
	Psychiatry, medical psychology	A
	Outpatient therapy	A
	Medical rehabilitation	A
	Assistant doctor (therapist)	A
	Physician assistant at outpatient clinic	A, C
	Traumatology, orthopedics	A, B
	Infectious diseases	A, B, C
	Anesthesiology, resuscitation, intensive care	IN
	Pediatric surgery	IN
	Oncology, radiation therapy	IN
PC-1	Hygiene	4.5
	Propaedeutics of internal diseases	5.6
	Non-infectious epidemiology	5.6
	Dentistry	7
	Epidemiology	8
	Occupational diseases	8
PK-5	Histology, embryology, cytology	2.3
	Pathological anatomy	5.6
	Pathophysiology	5.6
	Propaedeutics of internal diseases	5.6
	Radiation diagnostics	6
	Dentistry	7
	Fundamental medicine	7
	Psychiatry, medical psychology	A
	Clinical pathological anatomy	WITH
PK-6	Propaedeutics of internal diseases	5.6
	Radiation diagnostics	6
	Otolaryngology	7
	VPT, VPH	7
	Pediatrics	7,8,9
	obstetrics and gynecology	7,8,9,A
	Faculty Surgery	7,8,9,A
	Urology	7,A
	Neurology, medical genetics, neurosurgery	8
	Occupational diseases	8
	Ophthalmology	9
	Childhood infections	9
	Hospital surgery	9,A,B
	Outpatient therapy	9,A,B,C
	Psychiatry, medical psychology	A
	Traumatology, orthopedics	A, B
	Infectious diseases	A, B, C
	Phthisiology	IN
	Anesthesiology, resuscitation, intensive care	IN
	Pediatric surgery	IN
	Oncology, radiation therapy	IN
	Palliative care	IN
PK-8	Propaedeutics of internal diseases	5.6
	Otolaryngology	7

	Faculty therapy	7.8
	Urology	7,A
	Pediatrics	7,8,9
	obstetrics and gynecology	7,8,9,A
	Endocrinology	7,8,9,A
	Faculty Surgery	7,8,9,A
	Neurology, medical genetics, neurosurgery	8
	Ophthalmology	9
	Childhood infections	9
	Hospital therapy	9.A
	Hospital surgery	9.A
	Outpatient therapy	9,A,B
	Psychiatry, medical psychology	9,A,B,C
	Traumatology, orthopedics	A
	Infectious diseases	A, B
	Phthisiology	A, B, C
	Anesthesiology, resuscitation, intensive care	IN
	Pediatric surgery	IN
	Oncology, radiation therapy	IN
	Palliative care	IN
PK-15	Propaedeutics of internal diseases	5.6
	Otolaryngology	7
	Faculty therapy	7.8
	Pediatrics	7,8,9
	obstetrics and gynecology	7,8,9,A
	Endocrinology	7,8,9,A
	Faculty Surgery	7,8,9,A
	Urology	7,A
	Dermatovenereology	7,C
	Neurology, medical genetics, neurosurgery	8
	Occupational diseases	8
	Ophthalmology	9
	Childhood infections	9
	Hospital therapy	9.A
	Hospital surgery	9,A,B
	Outpatient therapy	9,A,B,C
	Medical rehabilitation	A
	Psychiatry, medical psychology	A
	Traumatology, orthopedics	A, B
	Infectious diseases	A, B, C
	Pediatric surgery	IN
	Oncology, radiation therapy	IN
	Palliative care	IN

5. Stages of developing competencies in the process of mastering the discipline

Sections of the discipline	Codes of formed competencies								
	defense industry				PC				
	5	6	8	eleven	1	5	6	8	15
Semester 5									
Section 1. General issues of surgery	+			+					

Section 2. Fundamentals of clinical surgery			+	+	+		+	+	
Semester 6									
Section 1. General issues of surgery	+	+				+			+
Section 2. Fundamentals of clinical surgery			+	+	+		+	+	

6. Forms of assessment tools in accordance with the competencies being developed

Code competent tions	Forms of assessment tools	
	Current certification	Interim certification
OPK-5	Situational tasks Tests	Situational tasks Tests
OPK-6	Disease history	Practical skills
OPK-8	Situational tasks Tests Oral survey	Situational tasks Tests Oral survey
OPK-11	Situational tasks Tests Oral survey Practical skills	Situational tasks Tests Oral survey Practical skills
PC-1	Situational tasks Tests Oral survey	Situational tasks Tests Oral survey
PK-5	Disease history	Practical skills
PK-6	Situational tasks Tests Oral survey	Situational tasks Tests Oral survey
PK-8	Situational tasks Tests Oral survey	Situational tasks Tests Oral survey
PK-15	Oral survey	Oral survey

7. Current control

General principles of the lesson:

- attendance control, uniform availability control
- survey on questions for the lesson
- mastering practical skills
- computer test control for blocks of topics
- defense of the abstract. When checking an abstract, the teacher evaluates:

1. Knowledge of factual material, assimilation of general concepts, concepts, ideas.
2. Characteristics of the implementation of the goal and objectives of the research (novelty or relevance of the problems posed in the abstract, correctness of the formulation of the goal, definition of the research objectives, compliance of the conclusions with the tasks being solved, the stated goal).
3. The degree of validity of arguments and generalizations (completeness, depth, comprehensiveness of the topic, logic and consistency of presentation of the material, correctness of argumentation and evidence system, nature and reliability of examples, illustrative material, breadth of the author's horizons, availability of knowledge of an integrated nature, ability to generalization).
4. The quality and value of the abstract results obtained (the degree of completion of the abstract research, the controversy or unambiguity of the conclusions).
5. Use of literary sources.

6. Culture of written presentation of material.
7. Culture of design of work materials.

- solving situational problems

- protection of medical history. When checking the medical history by the teacher, the evaluation are:

1. Compliance with the scheme for writing a medical history
2. Logic and consistency of presentation, justification of the diagnosis
3. Writing culture
4. Culture of medical history registration
5. Timely delivery of work

- work in the dressing room, visiting the operating room

SEMESTER 5

Practical lesson No. 1. Organization of the work of the surgical department and operation block.

Questions for the interview:

The main departments of the surgical hospital. Layout and operating principles of a surgical hospital. Operating room device. Special functional areas of the operating block. Operating room cleaning

Practical lesson No. 2. Asepsis. Prevention of airborne infections.

Questions for the interview:

Asepsis. Types and prevalence of surgical infection. Sources and ways of spreading surgical infection. Endogenous pathways of microbial contamination. Exogenous routes of microbial contamination: contact (direct and indirect), air, implantation. Nosocomial (hospital) infection in a surgical hospital. Organizational forms of ensuring asepsis. Combating microflora along the routes of airborne contamination.

Practical lesson No. 3. Asepsis. Prevention of contact and implantation no infection.

Questions for the interview:

Prevention of contact and implantation infections. Sterilization of surgical clothing, linen, surgical gloves, dressings and sutures, surgical instruments, drainages. Use of disposable material and instruments. Sterilization by ionizing, ultraviolet, ultrasonic radiation. Modern means and methods of chemical sterilization and disinfection. Packaging and storage of sterile material. Sterility control. Special functional areas of the operating unit. Operating room cleaning. Preparing the surgeon's hands for surgery. Preparation of the surgical field. Asepsis of the participants in the operation and the surgical field. General rules, techniques and modern methods of hand treatment before surgery. Preparation and treatment of the surgical field. Dressing in sterile clothing, dressing, wearing and changing rubber gloves. Rules for working under conditions of strict asepsis.

Practical skills:

Place the surgical linen in the bag. Wear
a sterile mask, cap and gown.
Assist in putting on a sterile mask, cap and gown. Treat hands
according to Spasokukotsky-Kochergin.
Treat the surgeon's hands with first murmur.
Treat the surgeon's hands with an alcohol solution of
chlorhexidine. Treat the surgeon's hands with Plivasept.
Treat the surgeon's hands with antiseptics based on solutions of polyhydric alcohols.

Practical lesson No. 4. Mechanical and physical antiseptics

Questions for the interview:

Antiseptic. The concept of antiseptics. Types of antiseptics. Mechanical antisepsis The concept of primary and secondary surgical treatment of wounds, principles and stages of implementation. Physical antiseptics. Drying, tamponing, drainage of wounds and cavities, vacuum treatment, vacuum aspiration, treatment with a pulsating jet of liquid, aspiration-washing method, ultraviolet irradiation, laser irradiation, ultrasonic cavitation, hyperbaric oxygenation, ozone therapy.

Practical lesson No. 5. Antiseptics: chemical, biological, mixed. Questions for the interview:

Chemical antiseptic. Methods of using various chemicals. Various types of local and general use of antiseptics. Main groups of antiseptic agents. Fundamentals of rational antiseptic chemotherapy. Biological antiseptics. Types of biological antiseptics. Biological antiseptics. Indications for antibacterial therapy. Choice of antibacterial drug. Selection of doses and method of administration of an antibacterial drug. Evaluation of the effectiveness of antibacterial therapy. Changing the antibacterial drug during treatment. Duration of antibacterial therapy. Methods of influencing the body's immune forces. Passive and active immunization in surgery. Immunocorrection and immunostimulation.

Test control for the section “Organization of the work of the surgical department and operating unit. Aseptic, antiseptic." Examples of test questions:.

1. According to the order of the Ministry of Health of the Russian Federation 203n “On approval of quality assessment criteria medical care" emergency surgery for acute appendicitis should be performed within:

1. 1 hour from the moment of diagnosis
2. 2 hours from the moment of diagnosis
3. 4 hours from the moment of diagnosis

Answer: 2

2. Indicate the founder of asepsis:

1. N.I.Pirogov
2. E. Bergman
3. D. Lister
4. I. Semelweis

Answer: 2

3. Define asepsis:

2. A set of measures aimed at preventing the entry of microorganisms (infectious agents) into a wound, tissue or human body
3. A set of measures aimed at combating infection in the human body, at preventing or eliminating the infectious and inflammatory process

Answer: 1

4. Specify the maximum permissible number of microorganisms in 1 m^3 air operation during surgery:

1. Should not exceed 200-300 microorganisms per 1 $m2^3$ air
2. Should not exceed 500 microorganisms per 1 m^3 air
3. Should not exceed 1000 microorganisms per 1 m^3 air
4. Should not exceed 1000 microorganisms per 1 m^3 air, provided there are no pathogenic strains

Answer: 4

5. During the operation, students entered and exited the operating room several times. Is this acceptable?

1. Acceptable, but asepsis is not violated
2. Acceptable, although it is a violation of operating room rules
3. Unacceptable, as this significantly increases air pollution

4. It is acceptable if students enter the operating room wearing shoe covers and masks

Answer: 3

6. Define disinfection:

1. Complete freedom from microorganisms of all objects, solutions, materials
2. Destruction of pathogenic microflora

Answer: 2

7. List the chemicals that are used for disinfection and cleaning implementation in surgery:

1. Iodine preparations (5 and 10 alcohol solution, iodonate, povidone-iodine)
2. Quinoxaline derivatives
3. Chloramine B
4. Chlorhexidine
5. Performic acid in combination with hydrogen peroxide (pervomur)
6. Boric acid
7. Silver nitrate
8. Mercury dichloride (sublimate)
9. Ethyl alcohol (70 and 96 solution)
10. Formalin
11. Carbolic acid
12. Triple solution
13. Dyes
14. Lysol

Answer: 1, 3, 4, 5, 8, 9, 10, 11, 12, 14

8. Indicate methods for processing the surgical field:

1. Grossikh-Filonchikov method
2. Spasokukotsky-Kochergin method
3. Bakkala method
4. Alfeld method

Answer: 1, 3

9. Indicate the founder of antiseptics:

1. D. Lister
2. N.I.Pirogov
3. E. Bergman
4. I. Semelweis

Answer: 1

10. List the methods of antiseptics:

1. Mechanical
2. Physical
3. Chemical
4. Biological
5. Mixed
6. Medicinal
7. Wellness
8. Preventive

Answer: 1, 2, 3, 4, 5

Solving situational problems in the section “Asepsis, antiseptics”. Examples of situational tasks:

TASK No. 1

Before operating on the abdominal organs, the surgeon washed his hands in two basins with a 0.5% solution of ammonia for 3 minutes in each, then dried them with a sterile towel and treated them with 96% alcohol for 5 minutes.

1. What method was used to treat your hands?
2. What are the surgeon's next steps to prepare his hands for surgery?
3. How to control hand sterility?

Answer: 1. Hand treatment method according to Spasokukotsky-Kochergin

2.Treatment of nail folds with iodonate solution, putting on sterile gloves.

3. Direct control of sterility - hand washes with subsequent bacteriological examination of the wash water.

TASK No. 2.

When examining a patient 10 days after a chest injury on the right, exudate was found in the right pleural cavity up to the level of the 4th rib. The doctor prescribed antibiotics and calcium chloride electrophoresis to the affected area.

1. What type of antiseptic should be used in the patient first of all, as the main one, what is its purpose?

2. What method of treatment monitoring do you recommend?

Answer. 1. Physical method of antiseptics - drainage of the pleural cavity

2. Monitoring the effectiveness of drainage - chest x-ray

TASK No. 3

When preparing the surgical field for a patient with a neck carbuncle, the student treated the carbuncle with antiseptics, and then the surrounding skin.

1. Has the surgical field been processed correctly?
2. If not, how should the surgical field be treated?
3. What is the essence of the error?

Answer: 1. Treatment of the surgical field was performed incorrectly

2. In purulent processes, the skin around the abscess is treated first, and then the abscess itself,

3. Treatment for purulent processes “from the periphery to the center” is carried out in order to reduce the spread of microorganisms from the purulent focus over healthy skin.

TASK No. 4

Surgical linen was sterilized in a horizontal autoclave. After sterilization, the material in the Schimelbusch drums was damp.

1. What are the likely reasons for this?
2. Can it be used for surgery?
3. If not, why not?

Answer: 1. The autoclave may be malfunctioning, but a more likely cause is the closed ventilation holes of the Schimelbusch drum before loading into the autoclave, and as a result, the lack of evaporation of excess moisture from the laundry at the end of autoclaving.

2. Wet underwear cannot be used during planned surgical interventions; use during emergency surgical interventions is allowed if there is no dry set.

3. A humid environment promotes the penetration of microorganisms from the surface of the patient’s body onto the surface of the linen, and therefore the squeak of microbial contamination of the surgical wound increases. In addition, wet underwear causes discomfort in the patient and can cause hypothermia.

TASK No. 5

While bandaging a purulent wound, the bandage was found to be blue-green and had an unpleasant odor. Surgical treatment of the brine was performed using mixed antiseptics.

1. What pathogen should you think about?
2. What needs to be done to find out the nature of the microflora?
3. What treatment is needed, local and general?

Practical lesson No. 6. Bleeding, blood loss. Coagulation disorder blood in surgical patients and methods for their correction.

Questions for the interview:

Bleeding, blood loss. Classification of bleeding. Clinical manifestations of external and internal bleeding. Clinical and instrumental diagnosis of bleeding. Assessing the severity of blood loss and determining its magnitude. Methods of temporary and final stop of bleeding. Modern principles of treatment of blood loss. Safe boundaries of hemodilution. Blood coagulation disorders in surgical patients and methods for their correction. Hemostasis system. Research methods. Diseases that cause changes in the blood coagulation system. The influence of surgical operations on hemostasis. Medicines that affect the hemostatic system. Prevention and treatment of thromboembolic complications. Prevention and treatment of hemorrhagic syndrome. DIC syndrome.

Practical skills:

Temporarily stop the bleeding by pressing the temporal artery with fingers.
Temporarily stop the bleeding by pressing the common carotid artery with fingers.

Temporarily stop the bleeding by pressing the brachial artery with fingers. Temporarily stop the bleeding by pressing the femoral artery with fingers. Temporarily stop the bleeding by pressing the subclavian artery with fingers.

Temporarily stop bleeding by elevating the limb. Use a pressure bandage to temporarily stop the bleeding.
Temporarily stop bleeding by maximally flexing the limb. Temporarily stop the bleeding by applying a rubber tourniquet.

Practical lesson No. 7. Transfusion of blood and its components

Questions for the interview:

Transfusion of blood components. Immunological foundations of transfusiology. Group systems of erythrocytes. ABO group system and Rh group system. Methods for determining blood groups using the ABO and Rh systems. Modern rules of blood transfusion according to ABO and Rh system groups. Responsibilities of a blood transfusion physician. Blood compatibility tests between donor and recipient before transfusion. Documentation of blood transfusion. Principles of modern component therapy.

Practical skills:

Perform a control inspection of canned blood during storage.
Determine the suitability of donor blood for transfusion.
Determine blood group using standard serum method.
Conduct a test for individual compatibility of the blood of the donor and the patient according to the group.
Conduct a test for individual compatibility of the blood of the donor and the patient according to the Rh factor.

Carry out a three-fold biological test during donor blood transfusion. Prepare a system for blood transfusion and blood substitutes.
Write a blood transfusion protocol.

Practical lesson No. 8. Transfusion of blood substitutes. Water-electrolyte disorders in surgical patients and principles of infusion therapy.

Questions for the interview:

Transfusion of blood substitutes. Classification of blood substitutes by mechanism of action. Characteristics of individual groups of blood substitutes. Rules for transfusion of blood substitutes. Indications and contraindications for transfusion of blood substitutes. Documentation for transfusion of blood substitutes.

Practical skills:

Perform a control inspection of blood substitutes during storage.
Determine the suitability of plasma and blood substitutes for transfusion. Write a protocol for transfusion of blood substitutes.

Abstract defense:

Blood substitutes with oxygen transfer function

Practical lesson No. 9. Reactions and complications during blood transfusion and blood substitutes

Questions for the interview:

Reactions and complications during transfusion of blood components and blood substitutes. Hemotransfusion reactions. Blood transfusion complications, their prevention, diagnosis, principles of treatment. Massive transfusions, the concept of individual blood selection, autologous blood transfusion.

Test control for the section “Bleeding, blood loss. Blood coagulation disorders in surgical patients and methods for their correction. Transfusion of blood and its components. Transfusion of blood substitutes. Water and electrolyte disturbances in surgical patients and principles of infusion therapy. Reactions and complications during blood transfusion and blood substitutes." Examples of test questions:.

1. Bleeding is:

1. Bleeding into tissues
2. Effusion of blood into the lumen of a hollow organ
3. Effusion of blood into the body cavity
4. Bleeding into the environment
5. Bleeding into muscles
6. Blood escapes beyond the vascular wall when it is damaged or permeability is impaired.

Answer: 6

2. What bleeding is distinguished by the time of occurrence?

1. Primary
2. Long lasting
3. Recurrent
4. Early secondary
5. Intense
6. Late secondary

Answer: 1,4,6

3. Specify local symptoms of bleeding into the abdominal cavity:

1. Tachycardia
2. Positive Kulenkampf's sign
3. Positive symptom of “vanka-stand up”
4. Lower blood pressure
5. Weakness, dizziness
6. Dullness of percussion sound in sloping areas of the abdomen
7. Pale skin
8. Overhang and tenderness of the anterior wall of the rectum during digital examination

Answer: 2,3,6,8

4. Physical methods of stopping bleeding include:

1. Vessel compression
2. Ligation of a vessel in a wound
3. Diathermocoagulation
4. Temporary bypass of the vessel
5. Artificial vessel embolization
6. Cryosurgery
7. Laser Applications

8. Wound tamponade

Answer: 3,6,7

5. Which type of plasma has the greatest biological activity?

1. Native
2. Fresh frozen
3. Dry (lyophilized) Answer: 2

6. At what temperature is red blood cell mass stored?

1. -20^{0}WITH
2. -4^{0}WITH
3. +4 – +6^{0}WITH
4. 0^{0}WITH

Answer:3

7. Specify the absolute indications for transfusion of red blood cells:

1. Detoxification
2. Pressure rise
3. Stimulation of hematopoiesis
4. Immunocorrection
5. Acute blood loss of III-IV degree
6. Parenteral nutrition
7. Hemorrhagic shock
8. Severe traumatic operations
9. Hypoproteinemia

Answer:5,7,8

8. Indicate what the attending physician does not determine during a blood transfusion:

1. Determination of indications and contraindications for blood transfusion
2. Determination of the recipient's blood group
3. Determining the donor's blood type
4. Determination of the recipient's Rh factor
5. Determination of the donor's Rh factor
6. Conducting an individual group compatibility test
7. Conducting an individual test for Rh compatibility
8. Conducting a biological test.
9. Determination of the shelf life and suitability of donor blood for transfusion Answer: 4.5

9. AB(IV) blood group contains:

1. Agglutinins - and -
2. Agglutinogens A and B
3. Agglutinogen B and agglutinin -
4. Agglutinogen A and agglutinin -
5. Does not contain agglutinins and agglutinogens
6. Does not contain agglutinins
7. Does not contain agglutinogens

Answer: 2

10. Name blood substitutes with hemodynamic action:

1. Hemodesis
2. Polyamine
3. Reopoliglyukin
4. Poliglyukin
5. Lipofundin
6. Gelatinol.

Answer:3,4,6

Solving situational problems in the section “Bleeding, blood loss. Blood coagulation disorders in surgical patients and methods for their correction. Blood transfusion

and its components. Transfusion of blood substitutes. Water and electrolyte disturbances in surgical patients and principles of infusion therapy. Reactions and complications during blood transfusion and blood substitutes." Examples of situational tasks:

TASK No. 1

The patient's bandage became soaked with blood 1.5 hours after appendectomy. It is known that stopping bleeding from the vessels of the subcutaneous tissue in the wound was carried out by ligation. The patient has concomitant diseases: chronic bronchitis, hypertension.

1. What is the most likely cause of the bleeding?
2. How is this bleeding classified?
3. What needs to be done to stop the bleeding? TASK No. 2

You have been called to assist a patient with arterial bleeding from a stab wound in the right buttock.

1. Name from which artery bleeding is possible?
2. How will you stop the bleeding if you have a medical bag with medicines and dressings?
3. Is it possible to apply a hemostatic tourniquet? TASK No. 3

The doctor found out that within 12 hours the patient had lost 500 ml of blood, determined the patient's blood type and in the vial with donor blood, Rh-ness, having carried out tests for group and Rh-compatibility, transfused 500 ml of blood. 5 minutes after the transfusion, the patient developed chest pain, lower back pain, shortness of breath, cold sweat, and tachycardia.

1. What test has not been performed by the doctor and how should it be performed?
2. What's wrong with the patient?
3. What is the doctor's mistake? TASK No. 4

A patient with massive intestinal bleeding was admitted to the surgical department. The patient's blood pressure is 70/40 mm Hg, pulse is 140 per minute. Blood loss according to Phillips - 1.5 liters. Relatives found out that the patient suffers from hemophilia.

1. What hemostatic therapy will you prescribe to the patient (name specific drugs)?
2. Are there indications for blood transfusion?
3. What methods of determining the amount of blood loss do you know? TASK No. 5

In preparation for blood transfusion, after performing a compatibility test according to the ABO system, the doctor began to determine the Rh compatibility test, for which he mixed the recipient's blood serum with the donor's blood in a ratio of 5: 1, then placed the Petri dish with the sample in a water bath at temperature 420 C. After 10 min. recorded the results.

1. Was the Rh compatibility test performed correctly?
2. What would you do?
3. What other tests need to be performed?

Practical lesson No. 10. Desmurgy. Non-operative surgical technique: probing, catheterization, injections.

Questions for the interview:

The concept of bandages and dressings. The medicinal value of bandages. Basic modern dressing materials. Types of dressings: by purpose, by methods of fixing the dressing material, by localization. Soft dressings, general rules for applying dressings. Types of bandaging. Technique of applying soft bandages to various parts of the body. Elastic

compression of the lower extremities Requirements for the finished bandage. Special dressings used in modern medicine.

Practical skills:

Apply a circular bandage to the shoulder. Apply a spiral bandage to the forearm. Place a turtle bandage on your forearm. Apply a spica bandage to the shoulder joint. Apply a figure-of-eight bandage to the ankle joint. Apply a cap bandage.

Apply a Hippocratic cap bandage. Apply a Deso bandage.
Apply a Velpo bandage. Prepare a gauze swab. Prepare a gauze napkin. Prepare a gauze ball. Perform a subcutaneous injection. Perform an intramuscular injection.

Practical lesson No. 11. Wounds. Phases of the wound process.

Questions for the interview:

Classification of wounds. Pathogenesis and phases of the wound process. Clinical features of various types of wounds. Types of wound healing

Practical lesson No. 12. Wound treatment

Questions for the interview:

Principles of first aid for wounds. Primary surgical treatment of wounds, its types. Secondary surgical treatment. Closing the wound. Treatment of a purulent wound depending on the phase of the wound process. Modern principles of surgical treatment of purulent wounds. Radical surgical treatment of a purulent wound. Additional physical methods of wound treatment. Flow-aspiration system. Enzyme therapy, antibacterial therapy. Features of treatment in the reparative regeneration phase. Physiotherapeutic treatment. Prevention of suppuration of postoperative wounds.

Practical skills:

Bandage a clean wound.
Bandage a purulent wound.
Remove surgical sutures.
Apply an individual dressing package for a penetrating bullet wound to a limb.

Practical lesson No. 13. Thermal and chemical burns. Electrical trauma, ho- boat injury

Questions for the interview:

Classification of burns. Determination of the depth and area of burns. Current forecast. First aid for burns. Burn disease - phases of progression. Principles of general and local treatment. Radiation and chemical burns. Local manifestations. First aid. Features of first aid for chemical burns of the skin, oral cavity, esophagus, stomach. Injuries from cooling. Types of general and local cold injury. Classification. Clinical picture, first aid and further treatment for frostbite in the pre-reactive period. General and local treatment of frostbite during the reactive period, depending on the degree of damage. General and complex therapy of victims of cold injury. Electrical injury. Local and general action of electric current. First aid for electrical injury. Features of further examination and treatment.

Abstract defense:

Modern methods of treating burns

Test control for the section “Desmurgy. Non-operative surgical techniques: probing, catheterization, injections. Wounds. Phases of the wound process. Treatment of wounds. Thermal and chemical burns. Electrical injury, cold injury." Examples of test questions:

1. Define desmurgy:

1. Desmurgy is the doctrine of bandages, their correct application and use
2. Desmurgy is the doctrine of transport immobilization
3. Desmurgy is the doctrine of dressings and methods of their implementation

Answer: 1

2. Indicate the types of dressings according to the nature of the material used:

1. Soft, hardening, hard
2. Pressure, protective
3. Bandage, scarf Answer:

1

3. Wounds are classified according to infection:

1. Aseptic
2. Operating rooms
3. Dirty
4. Purulent
5. Bacterially contaminated
6. Infected

Answer: 1,5,6

4. Indicate the characteristic local signs of the wound:

1. Pain
2. Shock
3. Gaping edges
4. Bleeding
5. Presence of a wounding object

Answer: 1,3,4

5. Indicate the time frame for the primary surgical treatment of the wound. is the most effective: 1. Up to 8 hours

2. 8-12 hours
3. 12-24 hours

Answer: 1

6. Indicate what is a contraindication for performing primary surgery processing:

1. Shock
2. Bleeding
3. HIV infection

Answer: 1

7. Indicate the degree of burns according to the depth of the lesion:

1. I, II, III
2. I, II, III, IV
3. I, II, IIIa, IIIb, IV
4. I, II, III, IV, V

Answer: 3

8. Indicate the characteristic changes in a first degree burn:

1. Hyperemia, presence of blisters
2. Presence of soft scab
3. Hyperemia and swelling of the skin
4. Carbonization of soft tissues

Answer: 3

9. The severity of electric shock depends on:

1. Current strength
2. Mainly due to voltage
3. Type of current, duration of action
4. Current paths Answer:

1,3,4

10. Chronic cold injury includes:

1. Freezing (general cooling)
2. Chills
3. Cold neurovasculitis
4. Frostbite

Answer: 2.3

Solving situational problems in the section “Desmurgy. Non-operative surgical techniques: probing, catheterization, injections. Wounds. Phases of the wound process. Treatment of wounds. Thermal and chemical burns. Electrical injury, cold injury." Examples of situational tasks:

TASK No. 1

A patient who received a thermal burn of the left upper limb, face, and torso was admitted to the emergency room. The patient is sharply agitated and makes almost no contact. The pulse is frequent, weak filling. On the burn surface there are areas of coagulative necrosis, as well as burst blisters with remnants of the epidermis.

1. What stage (phase) of burn disease?
2. What is the degree of burn?
3. When can you start treating a burn surface?
4. Is it possible to immediately determine the true depth of the burn?

TASK No. 2

A patient with an extensive granulating wound of the left thigh, which occurred after a thermal burn, was brought to the dressing room.

1. What degree of burn did the patient have?
2. What treatment method is currently indicated? What is its essence?
3. List the most commonly used donor areas. TASK No. 3

While bandaging a shoulder wound, the doctor discovered a purulent wound, the bottom and walls of which were covered with necrotic tissue. The wound was cleaned with hydrogen peroxide and furacillin. In order to remove non-viable tissue, drugs were used to help cleanse the wound without damaging healthy tissue.

1. What kind of drugs are these? Name the most widely used of them.
2. What method of antiseptics refers to the use of these drugs?
3. What to do if these drugs are not

available? TASK No. 4

During dressing, a superficial wound of the anterior abdominal wall, covered with purulent-necrotic tissue, was discovered in the patient.

1. Indicate the phase of the wound process.
2. What mechanical and physical antiseptic methods will you use for wound treatment in this phase?

TASK No. 5

After a long stay in the cold (-200 C), the patient developed frostbite in the ears. After warming up, both ears are bluish, with the presence of epidermal blisters with serous-hemorrhagic contents.

1. What is the period of frostbite for the patient?
2. What is the degree of frostbite in the patient?
3. What treatment is needed?

Practical lesson No. 14. General issues in surgery of injuries. First copper Qing care for critical conditions.

Questions for the interview:

Types of injuries and classification of injuries. The concept of isolated, multiple, combined and combined injuries. Medical and social prevention of injuries. Complications and dangers of injuries: immediate, immediate and late. General principles for diagnosing traumatic injuries. Assessment of the function of the central nervous system, respiration and circulation in severe injuries. Scales that determine the severity of injury. General principles of organization of prehospital and inpatient trauma care.

Practical lesson No. 15. Fractures. Clinic, diagnosis, treatment. Dislocations. Clinic, diagnosis, treatment

Questions for the interview:

Fractures. Classification. Clinical picture. Fundamentals of X-ray diagnostics. First aid. Basic principles of treatment: pain relief, reposition, immobilization, rehabilitation. Complications of traumatic fractures, pain shock, fat embolism, acute blood loss, development of infection and their prevention. Classification of dislocations. Clinical picture. Fundamentals of X-ray diagnostics. First aid. Basic principles of treatment: pain relief, reposition, immobilization, rehabilitation. Complications of dislocations.

Practical skills:

Diagnose the type of fracture, its location and displacement of fragments using an x-ray.

Practical lesson No. 16. Transport immobilization. Plaster technique.

Questions for the interview:

Transport immobilization. Goals, objectives, principles of implementation. Types of transport immobilization. Modern means of transport immobilization. Plaster and plaster casts. Plaster bandages, splints. Basic types and rules for applying plaster casts.

Practical skills:

Apply an improvised splint for a shoulder fracture. Apply an improvised splint for a hip fracture. Apply an improvised splint for fractures of the lower leg bones. Apply an improvised splint for a broken collarbone. Apply an improvised splint for a fracture of the pelvic bones. Use improvised immobilization for a spinal fracture. Apply a Kramer ladder splint for fractures of the forearm bones. Apply a Kramer ladder splint for a shoulder fracture.

Apply a Kramer ladder splint for fractures of the lower leg bones. Apply a Cramer ladder splint for a hip fracture. Apply a Dieterichs splint for a hip fracture.

Apply a Dieterichs splint for fractures of the lower leg bones. Apply a Goncharov splint for a hip fracture. Apply a Goncharov splint for fractures of the tibia. Apply an immobilizing bandage for rib fractures. Determine the suitability of gypsum.

Prepare a plaster bandage. Prepare a plaster splint. Place a plaster splint on the forearm.

Test control for the section “General issues in injury surgery. First medical aid for critical conditions Fractures. Clinic, diagnosis, treatment. Dislocations. Clinic, diagnosis, treatment. Transport immobilization. Gypsum technology.” Examples of test questions:

1. Indicate in what cases a dislocation is called complicated:

1. In case of open dislocation with a wound in the joint area
2. In case of simultaneous damage to large vessels, nerves or fractures of bone areas close to the joint
3. In case of untimely reduction of a dislocation, when cicatricial degeneration of the articular capsule and surrounding tissues in the area of the damaged joint develops, filling the glenoid cavity with scars

Answer:2

2. Specify methods for reducing a dislocated shoulder:

1. Kocher method
2. Mota method
3. Ilizarov method
4. Dzhanelidze method
5. Spasokukotsky method

Answer: 1,2

3. How are fractures classified by location?

1. Epiphyseal
2. Full
3. Incomplete
4. Metaphyseal
5. Subperiosteal
6. Diaphyseal

Answer:1,4,6

4. In what parts of the skeleton do compression fractures usually occur?

1. Bones of the calvarium
2. Ribs
3. Spine
4. Sternum
5. Pelvic bones
6. Shin bones

Answer:3

5. Specify the limits of immobilization with a Kramer splint for dislocation of the right shoulder:

1. From the right elbow joint to the right shoulder joint
2. From the right elbow joint to the left shoulder joint
3. From the fingers of the right hand to the right shoulder joint
4. From the fingers of the right hand to the left shoulder joint

Answer: 4

6.Example of combined injury:

1. Multiple rib fractures
2. Fracture of the leg and burn of the face
3. Fracture of the pelvic bones with rupture of the bladder
4. Fractures of both leg bones
5. Closed hip fracture and brain contusion Answer:

3

7.What are improvised tires?

1. Tires made from improvised materials (planks, skis, sticks, etc.)
2. Various types of tires used in combination
3. Splints used in combination with cotton-gauze dressings.

Answer:1

8.How is transport immobilization carried out for a fracture of the pelvic bones?

1. Using a Dieterichs splint
2. Using pneumatic tire
3. On a hard backboard in the “frog position”
4. Using a coxite bandage

5. Using a cotton-gauze circle
6. Using immobilization vacuum stretchers Answer: 3

9.Indicate by which vertebra a dislocation in the spine is indicated:

1. Above
2. Below

Answer:1

10.What is interposition?

1. Displacement of fragments along the length
2. Insertion of soft tissue between bone fragments
3. Introduction of metal structures into the fracture zone
4. Rotation fracture

Answer:2

Solving situational problems in the section “General issues in injury surgery. First aid for critical conditions Fractures. Clinic, diagnosis, treatment. Dislocations. Clinic, diagnosis, treatment. Transport immobilization. Gypsum technology." Examples of situational tasks:

TASK No. 1

You have been called by ambulance to a construction site. You find out that the patient fell from a height of 4 meters to his feet. He complains of pain in the lower back, the functions of the limbs are not impaired. When bending the body forward and to the side, pain in the lower back increases.

1. What damage do you expect?
2. What amount of first aid will you provide?
3. How should a patient be transported to a hospital? TASK No. 2

A patient with a closed fracture of the bones of the left leg is treated in hospital for 1 month with skeletal traction. During the next control X-ray examination, it was discovered that there was poor adaptation of bone fragments. There are no signs of callus formation.

1. What is the reason for this phenomenon?
2. What type of treatment should be used? TASK No. 3

After falling on his right arm, the patient felt a sharp pain in the right shoulder joint. During the examination, the traumatologist discovered a gross deformity of the right shoulder joint, impaired mobility in the joint, and severe pain during passive and active movements of the right arm.

1. What type of damage can be suspected in the patient?
2. What examination method should be used to clarify the diagnosis?
3. What treatment method should be used? TASK No. 4

A patient was brought to the trauma department from the scene of a traffic accident. On examination: the patient is unconscious, there are multiple abrasions on the forehead. Blood pressure 70/40 mm Hg. Art. Pulse 142, weak filling. On the anterior surface of the right thigh there is a 5x4 cm lacerated wound, in the depth of which a bone fragment is visible. A sharp curvature of the limb axis was noted.

1. What causes the patient's condition?
2. Where to start treating the patient?
3. What method of treatment for a fracture of the right femur should be used?

TASK No. 5

When examining the patient at the scene of the incident, the emergency doctor identified the presence of a closed fracture of the right femur, applied a transport splint and took the patient to the trauma department.

1. Has everything been done correctly?

2. What would you do?
3. What transport tire can be used in this case?

SEMESTER 6

Practical lesson No. 1. Closed injuries of soft tissues and tendons. Long-term crush syndrome, positional compression syndrome.

Questions for the interview:

Closed soft tissue injuries. Bruises, sprains and tears. Clinic, diagnostics. First aid and treatment of closed soft tissue injuries. Syndrome of prolonged compression and positional compression. Classification. Pathogenesis, clinical picture, diagnosis. Principles of surgical treatment and pathogenetic intensive care.

Abstract defense:

Closed injuries of soft tissues and tendons. Clinic, diagnosis, treatment. Long-term crush syndrome. Etiopathogenesis, clinical picture, diagnosis, treatment. Positional compression syndrome. Etiopathogenesis, clinical picture, diagnosis, treatment.

Practical lesson No. 2. Closed and open injuries to the head, chest cells and abdomen

Questions for the interview:

Head injury. Classification. The main dangers of head injuries that pose a threat to the lives of patients. First aid for head injury. Principles of treatment. Chest injury. Clinical picture and diagnosis of pneumothorax, features of first aid for tension, valve and open pneumothorax. Principles of treatment. Clinical manifestations of hemothorax. First aid for hemotorax. Abdominal injury. Classification. Clinical, laboratory and instrumental diagnosis of injuries to the abdominal organs and retroperitoneal space. Principles of treatment.

Abstract defense:

Closed and open head injuries. Classification, clinical picture, diagnosis, treatment.

Closed and open chest injuries. Classification, clinical picture, diagnosis, treatment.

Closed and open abdominal injuries. Classification, clinical picture, diagnosis, treatment

Test control for the section “Closed injuries of soft tissues and tendons. Long-term crush syndrome, positional compression syndrome. Closed and open injuries to the head, chest and abdomen.” Examples of test questions:

1. Definition of a bruise.

1. A bruise is damage to tissues or organs due to blunt mechanical impact on them without significant disruption of their anatomical integrity and physiological functions
2. A bruise is mechanical damage to tissues or organs due to short-term exposure to a blunt object.
3. A bruise is damage to tissues or organs without violating the integrity of the skin by the direct action of a blunt object on a particular part of the body and without visible violation of their anatomical integrity

Answer 3.

2. Definition of stretch**:**

1. Sprain - damage to soft tissues caused by a force acting in the form of traction and not disturbing the anatomical continuity of elastic formations (ligaments, tendons, muscles)
2. Stretching - damage to soft tissues caused by a force acting in the form of traction and leading to disruption of the anatomical continuity of elastic formations (ligaments, tendons, muscles)

3. Stretching is a violation of the anatomical integrity of tissues caused by a force exceeding their elastic capabilities.
4. Sprain – damage to soft tissue as a result of trauma with a blunt object. Answer 1.

3. Applying a tourniquet to a limb for traumatic toxicosis:
1. Not applicable
2. Used for all forms of traumatic toxicosis
3. Used for extremely severe and severe forms of traumatic toxicosis Answer 3.

4. The most optimal place for puncture of the pleural cavity is with a closed pneumatic thorax:
1. 2nd intercostal space along the midclavicular line
2. 5th intercostal space along the anterior axillary line
3. 8th intercostal space along the posterior axillary line
Answer 1.

5. If the blood obtained during puncture of the pleural cavity does not clot, this is indicates:
1. Heart damage
2. Stop bleeding
3. Continued bleeding
4. Lung damage
5. Open pneumothorax
Answer 3.

6. In what cases is traumatic brain injury penetrating?
1. In case of damage to the muscular aponeurosis layer
2. If the periosteum is damaged
3. If the outer bone plate is damaged
4. If the internal bone plate is damaged
5. In case of damage to the dura mater Answer: 5

7. List the types of pneumothorax:
1. Open
2. Full
3. Incomplete
4. Closed
5. Valve
6. Common
Answer: 1,4,5

8. Specify the optimal location for performing pleural puncture and thoracocentesis thesis for hemothorax:
1. 2nd intercostal space along the midclavicular line
2. 5th intercostal space along the anterior axillary line
3. 8-9th intercostal space along the posterior axillary line
Answer: 3

9. Indicate the main pathogenetic aspects of long-term crush syndrome Vania:
1. Painful irritation
2. Blood loss, plasma loss
3. Endotoxicosis by tissue breakdown products
4. Fat embolism of the kidneys and liver
5. Myoglobinuria
6. Thrombohemorrhagic syndrome
7. Paresis of the gastrointestinal tract
8. Acute kidney and liver failure

Answer: 1,2,3,5,8

10. First aid for long-term compartment syndrome includes:

1. Immobilization of the injured limb
2. Bandaging the injured limb
3. Hemodialysis
4. Prescribing painkillers
5. Prescription of sedatives
6. Necrectomy

Answer: 1,2,4,5

Solving situational problems in the section "Closed injuries of soft tissues and tendons. Long-term crush syndrome, positional compression syndrome. Closed and open injuries to the head, chest and abdomen." Examples of situational tasks:

TASK No. 1

A patient was brought to the emergency department from the scene of the disaster. From the anamnesis it was found that during a car collision, the victim hit his head, losing consciousness for several minutes. Currently, I am worried about dizziness, weakness, and mild nausea. Pulse 66 beats. per minute Blood pressure 120/70 mm Hg. There are no bone lesions on plain radiographs of the skull.

1. What causes the patient's condition?
2. What treatment will you prescribe?
3. Which specialist should the patient be examined by?

TASK No. 2

A 22-year-old patient was taken to the surgical department after an injury to the abdomen and lumbar region on the left. The patient notes pain in the left half of the abdomen, radiating to the left collarbone and shoulder, and general weakness. An ultrasound examination reveals heterogeneity of the spleen and free fluid in the abdominal cavity.

1. Specify the diagnosis.
2. What needs to be done to confirm it?
3. Indicate the optimal amount of medical care for the patient.

TASK No. 3

As part of the ambulance crew, you arrived at the scene of the incident. The patient was found to have an open pneumothorax on the left.

1. What amount of first aid will you provide?
2. What will you do next with the patient? TASK No. 4.

The victim was brought to the emergency department. From the anamnesis it was revealed that 2 hours ago he was beaten by unknown persons. Complains of weakness, dizziness, loss of consciousness, pain in the left half of the abdomen. During examination: PULSE 122 beats. per minute, blood pressure 100/60 mm Hg. The abdomen is soft, painful in the left half, where there is a small hematoma on the anterior abdominal wall. In sloping areas, dullness of percussion sound is noted. Blood test: Hb—90 g/l, erythrocytes—3.0x1012/l.

1. What causes the patient's condition?
2. What surgical care should be provided to the patient? TASK No. 5.

A 38-year-old woman came to the emergency room because she twisted her left leg inward in icy conditions, after which sharp pain and swelling immediately appeared in the ankle joint. Upon examination, it was revealed that the contours of the joint were smoothed, its tissues were swollen, and upon palpation there was moderate pain. Active and passive movements are sharply limited due to severe pain, there is no crepitus. There are no bone lesions on the x-ray.

1. What causes the patient's condition?
2. What treatment will you prescribe?

Practical lesson No. 3. Inpatient surgery. Preoperative period. Operation period. Postoperative period.

Questions for the interview:

Preoperative period. Absolute and relative indications for surgery in planned and emergency surgery. The concept of contraindications to surgery. Preparing the patient for surgery. Preparation for emergency operations. Legal and legal basis for conducting examinations and surgical interventions. Operation period. The concept of a surgical operation. Types of surgical operations: planned, urgent, emergency, radical and palliative. Position of the patient on the operating table. Principles for choosing surgical access. Minimally invasive surgery. Stages of surgery. Monitoring the condition of patients during surgery. Postoperative period. The body's reaction to operational aggression. Disorders of breathing, cardiac activity, function of the gastrointestinal tract and urinary organs, thromboembolic complications. Their prevention, diagnosis and treatment. Clinical observation of the patient. Laboratory and functional diagnostic monitoring of the state of the main body systems. Patient's regimen and nutrition. Anesthesia. Prevention, diagnosis and treatment of wound complications: bleeding, suppuration, eventration. The concept of rehabilitation after surgical treatment. Dressings, suture removal, physiotherapy and exercise therapy.

Practical lesson No. 4. Purulent diseases of the skin and subcutaneous tissue (furuncle, carbuncle, hidradenitis, abscess, phlegmon, erysipelas, erysipeloid)

Questions for the interview:

Purulent diseases of the skin and subcutaneous tissue. Types of purulent skin diseases: folliculitis, furuncle and furunculosis, carbuncle, hidradenitis, erysipelas, erysepeloid, periwound pyodiomy. Clinic, features of the course and treatment. Types of purulent-inflammatory diseases: abscess, phlegmon. Clinic, diagnostics, local and general treatment. Possible complications.

Practical lesson No. 5. Purulent diseases of the hand, cellular spaces and glandular organs (felon, lymphadenitis, mastitis, mumps, paraproctitis, paracolitis, mediastenitis)

Questions for the interview:

Purulent diseases of the hand. Classification, types of panaritium. Purulent tendovaginitis. Features of purulent inflammation of the hand. Principles of diagnosis and treatment. Purulent diseases of cellular spaces. Purulent mediastinitis. Purulent paranephritis. Acute paraproctitis. Causes of occurrence, symptoms, diagnosis, principles of local and general treatment. Purulent diseases of the glandular organs. Acute purulent mastitis. Symptoms, prevention, treatment of acute lactation postpartum mastitis. Purulent parotitis. Predisposing factors, clinical signs, methods of prevention and treatment. Purulent diseases of other glandular organs.

Test control for the section “Inpatient surgery. Preoperative period. Operation period. Postoperative period. Purulent diseases of the skin and subcutaneous tissue (furuncle, carbuncle, hidradenitis, abscess, cellulitis, erysipelas, erysipeloid). Purulent diseases of the hand, cellular spaces and glandular organs (felon, lymphadenitis, mastitis, mumps, paraproctitis, paracolitis, mediastenitis).” Examples of test questions:

1. Indicate why localization of a boil in the upper part of the face is dangerous:

1. Development of tonsillitis
2. Development of purulent thrombophlebitis of the facial veins
3. Development of purulent meningitis
4. Development of cavernous sinus thrombosis
5. Development of extensive facial swelling
6. Development of mumps

Answer: 2, 3, 4

2. Define carbuncle:

1. Carbuncle – acute purulent-necrotic inflammation of several nearby hair follicles and sebaceous glands, accompanied by the formation of a general infiltrate with necrosis of the surrounding skin and subcutaneous fatty tissue
2. Carbuncle – acute purulent inflammation of the sebaceous glands and subcutaneous fatty tissue
3. Carbuncle - acute purulent inflammation of the sweat glands with necrosis of the skin and subcutaneous fatty tissue
4. Carbuncle – acute purulent-necrotic inflammation of the hair follicle and sebaceous gland with necrosis of the surrounding skin and subcutaneous fatty tissue
Answer: 1

3. Specify the most common location of hidradenitis:
1. Axillary area
2. Submandibular region
3. Groin area
4. Umbilical region
5. Palmar surface of the hand
Answer: 1, 3

4. Define an abscess:
1. Abscess - a limited accumulation of pus in various tissues and organs due to their purulent melting and cavity formation
2. Abscess - acute diffuse purulent inflammation of various tissues and organs
3. Abscess - acute diffuse purulent inflammation of fatty tissue, not prone to demarcation
4. Abscess - accumulation of pus in natural body cavities and hollow organs
Answer: 1

5. Define phlegmon:
1. Phlegmon - acute diffuse purulent inflammation of fatty tissue, not prone to delineation
2. Phlegmon - a limited accumulation of pus in tissues and organs
3. Phlegmon is an acute purulent inflammation of the skin, not prone to delimitation.
Answer: 1

6. Indicate what pathogen causes erysipelas:
1. Staphylococcus
2. Streptococcus
3. Pseudomonas aeruginosa
4. Escherichia coli
5. Proteus
6. Klebsiella
Answer: 2

7. Specify typical locations of ulcers in acute mastitis:
1. Subcutaneous
2. Subareolar
3. Galactophorite
4. Subfascial
5. Intramammary
6. Retromammary
Answer: 1, 2, 3, 5, 6

8. Indicate diseases that require routine surgery:
1. Umbilical hernia, keloid scars of the face
2. Breast cancer, destructive cholecystitis
3. Lactation mastitis, phlegmon
Answer: 1

9. Specify the main tasks of the preoperative period:
1. Establishing a diagnosis

2. Determination of indications, urgency and nature of the operation
3. Determination of contraindications for surgery
4. Correction of identified homeostasis disorders
5. Carrying out additional clinical, laboratory and instrumental studies

6. Preventing complications
7. Psychological preparation of the patient
8. All of the above Answer:
8

10. Prevention of suppuration of a surgical wound includes:

1. Applying frequent sutures to the wound
2. Use of absorbable suture materials
3. Applying a sealed bandage
4. Wound drainage

Answer: 4

Solving situational problems in the section "Inpatient surgery. Preoperative period. Operation period. Postoperative period. Purulent diseases of the skin and subcutaneous tissue (furuncle, carbuncle, hidradenitis, abscess, phlegmon, erysipelas, erysipeloid). Purulent diseases of the hand, cellular spaces and glandular organs (felon, lymphadenitis, mastitis, mumps, paraproctitis, paracolitis, mediastenitis)" Examples of situational tasks:

TASK No. 1

The seamstress turned to the clinic surgeon with complaints of pain in the nail phalanx of the second finger of the right hand. I didn't sleep at night. From the medical history it is known that the day before, while working, she was pricked with a long needle in the area of the "pad" of the nail phalanx of the second finger of the right hand. On examination: on the palmar surface of the distal phalanx there is pronounced tension and tenderness of the soft tissues, local hyperthermia and hyperemia, at the injection site there is a detachment of the epidermis up to 0.3 cm in diameter with an accumulation of pus underneath.

1. What is your diagnosis?
2. Scope of treatment measures?
3. Is drainage necessary? TASK No. 2

In the maternity hospital, a postpartum woman who had been breastfeeding for 7 days consulted a doctor with complaints of twitching pain in the left mammary gland, an increase in temperature to 39^0C. Upon palpation, a compaction is determined in the outer quadrant of the gland with areas of softening, hyperemia of the skin over the compaction, and in a blood test, leukocytosis with a band shift.

1.What diagnosis can be made for the patient?
2. What instrumental research needs to be performed to confirm the diagnosis?

3.What should be the incision to empty the abscess?
4.Which method of pain relief is optimal? TASK No. 3

A 53-year-old woman came to see a dermatologist with complaints of itching and burning of the skin on the third finger of her left hand. From the anamnesis it became known that 3 days ago the patient was cutting up fish at home and pricked her finger with a bone. A day later, swelling on the finger, redness of the skin and pain appeared. Upon examination, a spot of skin hyperemia with a bluish-violet tint is noted on the dorsal-lateral surface of the finger. The edges of the redness are scalloped. The finger is swollen, movements in the interphalangeal joints are limited and painful.

1.What disease should you think about?
2. How will you treat the patient? TASK No. 4

A 40-year-old woman was brought to the emergency room of the surgical department with complaints of pain in the left axillary region, temperature up to 38^0C. From the anamnesis it was found out: the patient was in

For 10 days she was treated in a clinic for subcutaneous panaritium of the index finger of the left cyst. At the moment, the wound is healing by secondary intention. Objectively: enlarged, painful lymph nodes tightly connected to the surrounding tissue are palpated in the left axillary region. The skin over them is hyperemic.

1.What disease does the patient have?
2.What was the cause of the disease?
3.What treatment will you
prescribe? TASK No. 5
A 62-year-old patient, after hypothermia, developed a painful infiltrate measuring 4x6 cm on the back of the neck. The skin over it was hyperemic and tense. In the center there are several purulent-necrotic rods, pus is secreted near some of them.

1. What disease does the patient have?
2. What general and local treatment is necessary?
3. Specify the features of surgical intervention.

Practical lesson No. 6. General purulent infection - sepsis. Endotoxicosis.

Questions for the interview:

Concept of sepsis. Types of sepsis. Classification. Etiology and pathogenesis. An idea of the entrance gate, the role of macro- and microorganisms in the development of sepsis. Clinical manifestations of sepsis. Laboratory diagnosis of sepsis Stages of sepsis: bacteremia, systemic inflammatory response syndrome, sepsis, severe sepsis, septic shock, multiple organ failure syndrome. Assessment of the severity of the condition of patients with sepsis using scoring systems. Principles of complex treatment. Endogenous intoxication in surgery and principles of its correction. The concept of endogenous intoxication. Main types of endotoxicosis in surgical patients. Endotoxicosis, endotoxemia. General clinical and laboratory signs of endotoxicosis. Criteria for the severity of endogenous intoxication. Principles of complex treatment of endogenous intoxication syndrome in a surgical clinic. Stimulation of natural detoxification, artificial detoxification, syndromic therapy. Surgical removal of the source of intoxication.

Abstract defense:

Sepsis. Classification, etiopathogenesis, clinical picture, diagnosis, treatment.
Modern methods of detoxification in surgery.

Practical lesson No. 7. Purulent diseases of serous cavities.

Questions for the interview:

Peritonitis. Classification. Etiology and pathogenesis. Symptomatology and diagnosis. Principles of treatment. First medical aid for acute surgical diseases of the abdominal organs. Acute purulent pleurisy and pleural empyema. Classification. Etiology and pathogenesis. Symptomatology and diagnosis. Principles of treatment

Abstract defense:

Peritonitis. Classification, etiopathogenesis, clinical picture, diagnosis, treatment. Empyema of the pleura. Classification, etiopathogenesis, clinical picture, diagnosis, treatment.

Practical lesson No. 8. Purulent diseases of bones and joints

Questions for the interview:

Osteomyelitis. Classification. Etiology and pathogenesis. Clinical picture. Features of instrumental and laboratory diagnostics. Symptoms of acute osteomyelitis. Chronic recurrent osteomyelitis. Diagnosis of various forms of osteomyelitis. Principles of general and local treatment of osteomyelitis. Purulent arthritis. Causes, clinical picture, principles of treatment.

Test control for the section “General purulent infection - sepsis. Endotoxicosis. Purulent diseases of serous cavities. Purulent diseases of bones and joints." Examples

test questions:

1. Define sepsis:

1. Sepsis is a generalized infectious process of a non-cyclic type in conditions of constant or periodic entry from the source of infection into the bloodstream of microorganisms and their toxins against the background of an inadequate reaction of the body due to the failure of the immune system

2. Sepsis - a general purulent infection that complicates the course of local purulent-inflammatory processes

3. Sepsis is a disease that occurs when an infection enters the body against the background of a decrease in the activity of immunodefense

4. Sepsis is a peculiar reaction of the body to infection without any specific manifestations

5. Sepsis - the presence of microbes in the blood

Answer: 1

2. Is bacteremia always detected in sepsis?

1. Yes
2. No

Answer: 2

3. Antibacterial therapy for sepsis should be started;

1. If blood cultures are positive
2. After receiving an antibiogram
3. When detecting primary or metastatic foci
4. From the moment of diagnosis
5. In case of inadequate opening of the primary lesion

Answer: 4

4. Define peritonitis:

1. Peritonitis – inflammation of the parietal and visceral peritoneum, accompanied by pronounced local changes and intoxication

2. Peritonitis - inflammation of the pleura

Answer: 1

5. Based on prevalence, peritonitis is divided

1. into: Local limited
2. Local diffuse
3. Local unlimited
4. Toxic
5. Common
6. Common subtotal

Answer: 1,3,5

6. Specify the phases of peritonitis:

1. Reactive
2. Compensation
3. Enteral insufficiency
4. Toxic
5. Stage of multiple organ failure (compensated)
6. Stage of multiple organ failure (decompensated) Answer: 1,3,5,6

7. Define pyopneumothorax:

1. Pyopneumothorax is an acute purulent process that develops as a result of trauma to the chest wall.

2. Pyopneumothorax is an acute purulent process that develops as a result of a lung abscess breaking into the pleural cavity

Answer:2

8. Define osteomyelitis:

1. Osteomyelitis - purulent inflammation of the bone marrow of long tubular bones

2. Osteomyelitis - purulent inflammation of the spongy bone
3. Osteomyelitis - purulent inflammation of the bone marrow involving the spongy, compact substance of the bone, periosteum and surrounding tissues.
4. Osteomyelitis - purulent inflammation of the periosteum and surrounding tissues
Answer: 3

9. What is the criterion for the transition of hematogenous osteomyelitis to chronic phase?
1. Formation of bone sequestration
2. Progressive deterioration of general condition
3. Formation of intermuscular phlegmon
4. Formation of a subperiosteal abscess
Answer: 1

10. Specify primary chronic osteomyelitis:
1. Brody's abscess
2. Fibrous osteomyelitis
3. Tumor-like osteomyelitis
4. Garré sclerosing osteomyelitis
5. Albuminous Ollier osteomyelitis
Answer: 1,4,5

Solving situational problems in the section “General purulent infection - sepsis. Endotoxicosis. Purulent diseases of serous cavities. Purulent diseases of bones and joints”
Examples of situational tasks:
TASK No. 1

Upon examination of patient A., 15 years old, there are 2 fistulas and soft tissue infiltration on the anterior outer surface of the right thigh. X-ray: in the lower third of the femur a cavity is detected, up to 4 cm in diameter, with the presence of a free-lying sequestrum. It is known that 2 years ago a phlegmon was opened in this area.
1. Formulate a diagnosis.
2. What volume of treatment measures does the patient need to carry out?
TASK No. 2

A 5-year-old boy was admitted to the pediatric surgical department with complaints of pain in the right thigh, fever up to 39.5^{0}S, malaise, general weakness. From the anamnesis it was revealed that 10 days before the illness he suffered from a sore throat. Suddenly the child’s condition worsened and the above complaints appeared. Upon examination, the patient's condition is serious. The skin and visible mucous membranes are pale, the right lower limb is in a forced position (half-bent). Active and passive movements in the joints are severely limited due to pain. When tapping the heel bone, a sharp pain in the thigh area is revealed.
1. What disease are we talking about?
2. Suggest the scope of treatment measures.
3. Is surgical treatment indicated?
4. If yes, in what time frame?
TASK No. 3

A patient was admitted to the surgical department with complaints of pain throughout the abdomen, nausea, vomiting of foul-smelling contents, and an increase in temperature to 38.5^0 C. Upon examination, it was determined that he had been ill for 4 days. At the beginning of the disease, the pain was localized in the right iliac region, and subsequently spread throughout the abdomen. Upon objective examination, the patient's condition is serious. The skin is gray-earthy in color, the features are pointed, the tongue is dry, covered with brown crusts, the abdomen is evenly swollen. Palpation of the abdomen is sharply painful in all parts, peristalsis cannot be heard, a positive Shchetkin-Blumberg sign is determined in all parts. A plain X-ray of the abdominal cavity reveals distended intestinal loops without horizontal fluid levels, and an ultrasound examination reveals free fluid in the abdominal cavity. When installing a nasogastric

The probe released a large amount of stagnant gastric contents. 1. What disease are we talking about?

2. Indicate the stage of the clinical course of this disease?

3. What are the treatment tactics?

4. Can such a patient be operated on immediately from the moment of admission?

TASK No. 4

In a sick child 5 years old after suffering from pneumonia, the development of foci of destruction in the right lung was noted, and subsequently the formation of multiple abscesses in the soft tissues. Hectic temperature and intoxication persist.

1. How can we explain the child's condition?

2. What general treatment will you prescribe?

3. Is surgical treatment indicated?

4. If yes, to what extent? TASK No. 5

Patient P., 36 years old, has been experiencing fever and weakness for a long time; over the past 8 months, the patient has undergone 3 operations for ulcers of various locations. This condition developed against the background of an abscess of the right lung.

1. What are the causes of this patient's condition?

2. What treatment should the patient receive?

Practical lesson No. 9. Methodology for examining a surgical patient.

Questions for the interview: Examination of surgical patients. Purposeful clarification of the patient's complaints and the history of the disease. Concomitant, previous diseases and operations. Drug tolerance. General clinical examination of the patient using examination, thermometry, palpation, percussion and auscultation. Assessment of local status. Drawing up a plan for examining the patient. The role of laboratory and instrumental methods in the examination of a surgical patient. Determining the scope of mandatory and additional research. The need for specialist consultation. The sequence of application of clarifying research methods. Features of examination of patients with severe injuries and acute surgical diseases. Determining the need for urgent diagnostic and therapeutic measures. Preparing the patient for instrumental examination methods. Compilation of educational medical history.

Practical skills:

Collect the patient's complaints and anamnesis.

Objectively examine a surgical patient.

Practical lesson No. 10. Patient supervision.

Practical supervision of a surgical patient. Compilation of educational medical history. Protection of educational medical history.

When checking the medical history, the teacher evaluates: 1.

Compliance with the scheme for writing the medical history

2. Logic and consistency of presentation, justification of the diagnosis

3. Writing culture

4. Culture of medical history registration

5. Timely delivery of work

Practical lesson No. 11. Anaerobic and putrefactive surgical infection**.** Specific surgical infection

Questions for the interview:

Acute anaerobic, putrefactive and specific surgical infection": 1. The concept of clostridial and non-clostridial anaerobic infection. Features of aseptic

tics during anaerobic infection. Modern principles of prevention and treatment of anaerobic and putrefactive infections. General principles of surgical techniques. Main diseases: tetanus, tuberculosis, anthrax, rabies, wound diphtheria, actinomycosis, candidomycosis. Clinical picture. Laboratory and instrumental diagnostics. Principles of prevention and treatment

Abstract defense:

Anaerobic clostridial and non-clostridial infection. Etiopathogenesis, clinical picture, diagnosis, treatment.

Practical lesson No. 12. Fundamentals of surgery for regional circulatory disorders growth. (Necrosis, gangrene, ulcers, fistulas).

Questions for the interview:

Arterial blood flow disorders. Acute and chronic. The main causes of arterial blood flow disorders. General principles of clinical and instrumental diagnostics. Degrees of acute ischemia and stages of chronic arterial insufficiency. Surgical and conservative treatment. Principles of treatment. Venous circulation disorders. Acute venous thrombosis and chronic venous insufficiency General principles of clinical and instrumental diagnostics. Prevention of complications. Principles of complex treatment. Lymph circulation disorders. Lymphostasis. Main reasons. Principles of diagnosis and treatment. Necrosis. Clinical forms. Causes of occurrence. Gangrene, bedsores, trophic ulcers. Dynamics of bedsore development. Prevention and principles of treatment.

Practical lesson No. 13. Fundamentals of surgical oncology.

Questions for the interview:

General characteristics of tumors. Benign and malignant neoplasms. Pathways of metastasis. Clinical classification of tumors. Special diagnostic methods. Morphological verification of the diagnosis. Determining the stage of cancer. Clinical groups of cancer patients. Principles of surgical treatment of tumors. Fundamentals of complex therapy of malignant tumors. Principles of organizing oncological services.

Practical lesson No. 14. Developmental defects. Basics of plastic surgery.

Questions for the interview:

Congenital malformations of organs and tissues. Classification. Diagnostics. Principles of surgical treatment. The concept of plastic surgery. Autoplasty, alloplasty and xenoplasty. The concept of organ and tissue transplantation. Principles of clinical transplantology.

Practical lesson No. 15. Fundamentals of surgery for parasitic diseases.

Questions for the interview:

Echinococcosis. Clinic (stages of clinical course), diagnosis, treatment. Alveococcosis. Clinic, diagnosis, treatment.

Test control for the section “Anaerobic and putrefactive surgical infection.Spe-digital surgical infection.Fundamentals of surgery for regional circulatory disorders growth. (Necrosis, gangrene, ulcers, fistulas) Fundamentals of surgical oncology. Developmental defects. Basics of plastic surgery. Fundamentals of surgery for parasitic diseases." Examples of test questions:

1. Specify the causes of intoxication during clostridial anaerobic infection:
1. Traumatic shock
2. Absorption of tissue necrosis products
3. Absorption of microorganism toxins
4. Blood loss

Answer: 2.3

2. Indicate the most common localization of the process in clostridial anaerobic infection:

1. Head, neck
2. Limbs
3. Torso
4. Crotch
5. Intestines

Answer: 2

3. The first stage of carcinogenesis is called:

1. Initiation
2. Promotion
3. Transformation
4. Introduction

Answer: 1

4. What is Virchow metastasis?

1. Metastasis to the ovary
2. Metastasis to the lymph node above the collarbone
3. Metastasis to the liver
4. Metastasis to bone
5. Metastasis to the retrorectal fossa and posterior vaginal fornix

Answer: 2

5. Specify the causative agent of diphtheria in wounds?

1. Staphylococcus
2. Coca stick
3. Non-clostridial anaerobes
4. Leffler's wand
5. E. coli

Answer: 4

6. What is deformity?

1. Multiple defects
2. Single defects
3. Malformations of the face and skull
4. Defects that do not cause functional disorders of organs and systems and minor defects
5. Defects that cause functional disorders of organs and systems, disfiguring and major defects

Answer: 5

7. Define necrosis:

1. Necrosis is the death of tissue, part or the entire organ of a living organism
2. Necrosis is degenerative-dystrophic changes in an organ or tissue of a living organism
3. Necrosis is a violation of blood circulation in an organ

Answer: 1

8. Define gangrene:

1. Gangrene - necrosis of organ tissue caused by a primary circulatory disorder
2. Gangrene - a defect of the skin or mucous membrane with a low tendency to heal
3. Gangrene – local tissue necrosis due to compression and resulting circulatory disorder

Answer: 1

9. Specify the classification of fistulas in relation to the external environment:

1. Full
2. Incomplete
3. Internal

4. External
5. Labiform
6. Granulating
7. Mucous

Answer: 3.4

10. The leading role in the diagnosis of echinococcosis is played by:

1. Serological reactions
2. Computed tomography
3. Clinical and anamnestic data
4. Ultrasound examination
5. X-ray examination Answer: 1

Solving situational problems in the section "Anaerobic and putrefactive surgical infection".Specific surgical infection.Fundamentals of surgery for regional disorders national blood circulation. (Necrosis, gangrene, ulcers, fistulas) Fundamentals of surgical oncology. Developmental defects. Basics of plastic surgery. Fundamentals of surgery for parasitic diseases." Examples of situational tasks:

TASK No. 1

Patient M., 26 years old, on the third day after surgery for a closed abdominal injury, rupture of the sigmoid colon, diffuse fecal peritonitis, swelling of the soft tissues of the anterior abdominal wall around the postoperative wound, palpable crepitus of air in the subcutaneous tissue, and severe intoxication appeared. When removing the sutures and inspecting the wound, a foul-smelling discharge with a hemorrhagic tint was released, the subcutaneous tissue was necrotic, the walls and bottom of the wound were covered with a dirty green coating.

1. What kind of infection should we think about?
2. What is the duration of the incubation period for this disease?
3. What antiseptics are used to treat wounds when this infection is suspected?
4. What physical method is used in the complex treatment of this infection?

TASK No. 2

A 43-year-old man, while digging up soil in the garden, slightly injured his left shin with a shovel. After 3-4 days, the superficial wound was covered with a brownish scab and practically did not bother the patient. However, 10 days after the injury, he developed severe headaches, weakness, profuse sweating, minor pain in the wound area, as well as some tension and twitching of the muscles around it. Soon the patient noted the appearance of fatigue in the masticatory muscles and their persistent tension when eating, which made it difficult to open the mouth. The local doctor, to whom the patient approached with these complaints, referred him to a dentist.

1. Did the local doctor act correctly?
2. What disease does the patient have?
3. In which department should it be located?
4. What treatment should be given to the patient in this case?

TASK No. 3

A young man, 20 years old, had an extensive skin defect in the form of a wound made by fresh granulations in the area of the dorsal surface of his right hand. In order to close this defect, the surgeon performed plastic surgery with a skin flap on a pedicle cut from the skin of the abdomen. The length of the skin flap was 10 cm, and the width of its base was 6 cm. 7 days after skin grafting, the base of the transplanted flap was cut off from the maternal soil. Another day later, the surgeon discovered necrosis of the transplanted skin flap.

1. What is the name of the plastic surgery method?
2. What do you think is the reason for the unsatisfactory result of this operation?
3. What should you have done in this case?

TASK No. 4

A young man, 29 years old, a resident of a rural area, consulted a surgeon with complaints of a moderately painful formation in the right hypochondrium, periodic skin itching, accompanied by skin rashes and an increase in body temperature. Upon palpation in the right hypochondrium, the surgeon discovered a tumor-like formation of a round shape with clear boundaries, tight-elastic consistency, dimensions 8.5x10 cm, moderately painful. An ultrasound examination revealed a round formation with clear contours, filled with fluid, in the right lobe of the liver. In the general blood test, eosinophilia was noted, reaching 15%.

1. What diagnosis should be given to the patient?
2. What laboratory test should be performed on this patient to confirm the diagnosis? How is this research conducted?
3. What treatment should be given to the patient?

TASK No. 5

In a 43-year-old patient, during fibrogastroscopy, an endoscopist discovered in the area of the lesser curvature of the stomach a rounded formation the size of a large pea, mobile, located on a thin stalk. The gastric mucosa in this area is not visually changed. After a biopsy of this formation, a morphological conclusion was obtained, which indicated that the biopsy sample was represented by cells of normal glandular epithelium of the stomach; no atypical cells were identified.

1. What diagnosis should be given to the patient?
2. What category of diseases does this pathology belong to?
3. What should be the treatment for this patient?

Practical lesson No. 16. Outpatient surgery. Structure of the surgical clinic services, trauma center. Scope of conservative and operative surgical treatment. Types of outpatient surgical interventions, their scope, anesthesia technique

Questions for the interview:

Structure of the surgical service of the clinic, trauma center. Scope of conservative and operative surgical treatment. The main contingent of surgical outpatients. One day hospital. Types of outpatient surgical interventions, their scope, anesthesia technique.

8. Interim certification

Form of intermediate certification: computer test control (100 test questions), completion of the 1st practical skill, interview on the 2nd exam questions, solution of the 1st situational problem, additional questions on missed lectures..

8.1..Computer test control.100 test questions out of 1327. Examples test questions:

1. Specify the maximum permissible number of microorganisms in 1 m3air operational before starting work:

1. Should not exceed 200-300 microorganisms per 1 m23air
2. Should not exceed 500 microorganisms per 1 m3air
3. Should not exceed 1000 microorganisms per 1 m3air
4. Complete absence of microorganisms

Answer: 2

2. AB(IV) blood group contains:

1. Agglutinins - and -
2. Agglutinogens A and B
3. Agglutinogen B and agglutinin -

4. Agglutinogen A and agglutinin -
5. Does not contain agglutinins and agglutinogens
6. Does not contain agglutinins
7. Does not contain agglutinogens

Answer: 2

3. Indicate the types of dressings according to the nature of the material used:

1. Soft, hardening, hard
2. Pressure, protective
3. Bandage, scarf Answer:
1

4. Wounds are classified according to infection:

1. Aseptic
2. Operating rooms
3. Dirty
4. Purulent
5. Bacterially contaminated
6. Infected

Answer: 1,5,6

5. Indicate the characteristic changes in a first degree burn:

1. Hyperemia, presence of blisters
2. Presence of soft scab
3. Hyperemia and swelling of the skin
4. Carbonization of soft tissues

Answer: 3

6. In what cases is traumatic brain injury penetrating?

1. In case of damage to the muscular aponeurosis layer
2. If the periosteum is damaged
3. If the outer bone plate is damaged
4. If the internal bone plate is damaged
5. In case of damage to the dura mater Answer:
5

7. List the types of pneumothorax:

1. Open
2. Full
3. Incomplete
4. Closed
5. Valve
6. Common

Answer: 1,4,5

8. Based on prevalence, peritonitis is divided into:

1. Local limited
2. Local diffuse
3. Local unlimited
4. Toxic
5. Common
6. Common subtotal Answer: 1,3,5

9. Define gangrene:

1. Gangrene - necrosis of organ tissue caused by a primary circulatory disorder

2. Gangrene - a defect of the skin or mucous membrane with a low tendency to heal
3. Gangrene – local tissue necrosis due to compression and resulting circulatory disorder

Answer: 1

10. The first stage of carcinogenesis is called:
1. Initiation
2. Promotion
3. Transformation
4. Introduction
Answer: 1

8.2. Practical skills and abilities(performance1 practical skill out of 68 in a practical skills room equipped with a full-size human mannequin, a dressing table with instruments, a test kit for transfusion of blood components, a transfusion system, wound models, an upper limb model for removing surgical sutures and performing injections, bandages for applying a bandage, zok, etc.). List of practical skills: 1. Investigate the patient's complaints and anamnesis.

2. Objectively examine the surgical patient.
3. Prepare a gauze swab.
4. Prepare a gauze napkin.
5. Prepare a gauze ball.
6. Place the surgical linen in the bag.
7. Wear a sterile mask, cap and gown.
8. Assist in putting on a sterile mask, cap and gown.
9. Treat hands according to Spasokukotsky-Kochergin.
10. Treat the surgeon's hands with pervomur.
11. Treat the surgeon's hands with chlorhexidine.
12. Treat the surgeon's hands with rokkal.
13. Treat the surgeon's hands with degmin.
14. Bandage a clean wound.
15. Bandage a purulent wound.
16. Remove surgical sutures.
17. Apply a circular bandage to the shoulder.
18. Apply a spiral bandage to the forearm.
19. Apply a turtle bandage to the forearm.
20. Apply a spica bandage to the shoulder joint.
21. Apply a figure-of-eight bandage to the ankle joint.
22. Apply a "bonnet" bandage.
23. Apply a "Hippocratic cap" bandage.
24. Apply a Deso bandage.
25. Apply a Velpo bandage.
26. Determine the suitability of gypsum.
27. Prepare a plaster bandage.
28. Prepare a plaster splint.
29. Apply a plaster splint to the forearm.
30. Apply an individual dressing package for a through-and-through bullet wound of a limb.
31. Temporarily stop the bleeding by pressing the temporal artery with fingers.
32. Temporarily stop the bleeding by pressing the common carotid artery with fingers.
33. Temporarily stop the bleeding by pressing the brachial artery with fingers.
34. Temporarily stop the bleeding by pressing the femoral artery with fingers.

35. Temporarily stop the bleeding by pressing the subclavian artery with fingers.

36. Temporarily stop bleeding by raising the limb.
37. Temporarily stop bleeding with a pressure bandage.

38. Temporarily stop bleeding by maximally flexing the limb.
39. Temporarily stop bleeding by applying a rubber tourniquet.
40. Perform a control inspection of canned blood during storage.
41. Perform a control inspection of blood substitutes during storage.
42. Determine the suitability of donor blood for transfusion.
43. Determine the suitability of plasma and blood substitutes for transfusion.
44. Determine blood group using standard serum method.
45. Conduct a test for individual compatibility of the blood of the donor and the patient according to the group.

46. Conduct a test for individual compatibility of the blood of the donor and the patient according to the Rh factor.
47. Conduct a three-fold biological test during donor blood transfusion.
48. Prepare a system for blood transfusion and blood substitutes.
49. Write a blood transfusion protocol.
50. Write a protocol for transfusion of blood substitutes.
51. Apply an improvised splint for a shoulder fracture.
52. Apply an improvised splint for a hip fracture.
53. Apply an improvised splint for a broken leg bone.
54. Apply an improvised splint for a clavicle fracture.
55. Apply an improvised splint for a fracture of the pelvic bones.
56. Apply improvised immobilization for a spinal fracture.
57. Apply a Kramer ladder splint for a fracture of the forearm bones.
58. Apply a Cramer ladder splint for a shoulder fracture.
59. Apply a Kramer ladder splint for a fracture of the tibia.
60. Apply a Cramer ladder splint for a hip fracture.
61. Apply a Dieterichs splint for a hip fracture.
62. Apply a Dieterichs splint for a fracture of the tibia.
63. Apply a Goncharov splint for a hip fracture.
64. Apply a Goncharov splint for a fracture of the tibia.
65. Diagnose the type of fracture, its location and displacement of fragments using an x-ray.
66. Apply an immobilizing bandage for rib fractures.
67. Perform a subcutaneous injection.
68. Perform an intramuscular injection.

8.3.Interview (2 questions out of 159). List of questions for the intermediate attestation stations:

1. Development of surgery until the 19th century.
2. Development of surgery in the nineteenth and twentieth centuries. Discoveries of surgical anesthesia, antiseptics and asepsis. The formation of scientific surgery based on fundamental discoveries of natural sciences.
3. Development of surgery in Russia. Main domestic surgical schools.
4. Current state of surgery. The role and place of surgery in modern medicine.
5. The concept of deontology. Moral character and general culture of a doctor.
6. Medical ethics, medical thinking and new medical technologies.
7. Legal principles of surgical activity. Medical errors in surgery. Iatrogenic pathology in surgery.
8. Asepsis (definition). Sources and ways of spreading surgical infection.

9. Intrahospital (hospital) infection in a surgical hospital. The problem of HIV infection in surgery.
10. Fight against microflora on the tracks, airborne infections.
11. Fight against microflora at the stages of contact infection of a wound. Sterilization and disinfection.

12. Sterilization of surgical clothing, linen, surgical gloves, dressings, surgical instruments, drainages.
13. Types of sterilization. Sterility control.
14. General rules, techniques and modern methods of hand treatment before surgery.
15. Preparation and treatment of the surgical field.
16. Prevention of implantation wound infection. Sterilization of suture material, prostheses, structures.
17. Rules for working under conditions of strict asepsis.
18. Antiseptics (definition). Methods and types of antiseptics.
19. Mechanical antiseptics. The concept of primary and secondary surgical treatment of wounds, principles and stages of implementation.
20. Physical antiseptics.
21. Chemical antiseptics. Main groups of antiseptic agents.
22. Biological antiseptics. Biological antiseptics.
23. Indications and contraindications for antibacterial therapy.
24. Rational antibacterial therapy.
25. Passive and active immunization in surgery. Immunocorrection and immunostimulation.
26. Transfusiology (definition). Sources of blood.
27. The mechanism of action of transfused blood.
28. Basic blood transfusion media. Blood components and products.
29. Antigenic blood systems and their role in transfusiology. AB0 group system and Rh group system.
30. The main actions of a doctor and the sequence of their implementation during blood transfusion.
31. Organization of blood and donation services in Russia.
32. Modern methods of procurement, preservation and storage of blood and its components.

33. Principles of modern component therapy.
34. Autohemotransfusion. Blood reinfusion.
35. Blood substitutes (definition). Classification of blood substitutes by mechanism of action.
36. Blood substitutes with hemodynamic (anti-shock) action.
37. Blood substitutes for detoxification.
38. Causes of water-electrolyte and acid-base disorders in surgical patients. Blood substitutes for the regulation of water-salt and acid-base status.

39. Blood substitutes for parenteral nutrition. Basic principles of parenteral nutrition.

40. Indications, contraindications and methods of infusion therapy. Principles of infusion therapy, control over its implementation.
41. The main stages and sequence of the doctor’s actions during the transfusion of blood substitute fluids.
42. Blood transfusion reactions.
43. Blood transfusion complications, their prevention, diagnosis, principles of treatment.

44. Massive transfusions, the concept of individual blood selection.
45. Bleeding (definition). Classification of bleeding.
46. Pathogenesis of acute blood loss. Factors that determine the volume of blood loss and the outcome of bleeding.
47. General clinical and laboratory manifestations of acute blood loss.
48. Clinical manifestations and diagnosis of bleeding into the pleural cavity
49. Clinical manifestations and diagnosis of bleeding into the peritoneal cavity.

50. Clinical manifestations and diagnosis of bleeding into the lumen of the gastrointestinal tract.
51. Assessing the severity of blood loss and determining its magnitude.
52. Hemostasis (definition). Mechanism of hemostasis. Methods for temporarily stopping bleeding
53. Methods for definitively stopping bleeding.
54. Modern principles of treatment of acute blood loss.
55. Blood coagulation disorders in surgical patients and methods for their correction.
56. Prevention and treatment of thromboembolic complications.
57. Prevention and treatment of DIC syndrome.
58. The concept of first aid. Basic principles of organization, pre-medical and first medical care at the pre-hospital stage. Tasks of first aid.
59. Desmurgy. Therapeutic value of bandages. Basic modern dressing materials.

60. Types of dressings: by purpose, by methods of fixing the dressing material, by localization.
61. Soft dressings, general rules for applying dressings.
62. Organization of surgical care. Structure of the surgical service of the clinic, trauma center. Types of outpatient surgical interventions, their scope, anesthesia technique.

63. The concept of a surgical operation. Types of surgical operations.
64. Main stages of surgical intervention.
65. Minimally invasive surgery. The body's reaction to operational aggression. Disorders of breathing, cardiac activity, functions of the gastrointestinal tract and urinary organs, thromboembolic complications. Their prevention, diagnosis and treatment.
66. Preoperative period. The main tasks of the preoperative period. Absolute and relative indications for surgery in planned and emergency surgery. Assessment of surgical and anesthetic risk.
67. Postoperative period. Phases of the postoperative period. The main tasks of the postoperative period.
68. Postoperative complications (local and systemic): causes, prevention, diagnosis and treatment.
69. Purulent surgical infection (definition). Classification. Etiology. Factors determining the development, course and outcome of purulent infection.
70. Pathogenesis and reaction of the body to the development of purulent infection.
71. Clinical manifestations and diagnosis of purulent-inflammatory diseases.
72. Modern principles of treatment of purulent-inflammatory diseases.
73. Furuncle and furunculosis. Etiology and pathogenesis. Clinical manifestations, diagnosis and treatment.
74. Carbuncle. Etiology and pathogenesis. Clinical manifestations, diagnosis and treatment.
75. Hidradenitis. Etiology and pathogenesis. Clinical manifestations, diagnosis and treatment.

76. Erysipelas. Etiology and pathogenesis. Clinical manifestations, diagnosis and treatment.
77. Eryzepeloid. Etiology and pathogenesis. Clinical manifestations, diagnosis and treatment.

78. Abscess. Etiology and pathogenesis. Clinical manifestations, diagnosis and treatment.
79. Phlegmon. Etiology and pathogenesis. Clinical manifestations, diagnosis and treatment.
80. Features of the anatomical structure of the hand. Phlegmon of the hand. Classification, features of the course, diagnosis and treatment.
81. Panaritium. Classification, types of panaritium. Etiology and pathogenesis. Clinical manifestations, diagnosis and treatment.
82. Purulent tendovaginitis. Clinic, features of the course, diagnosis and treatment.

83. Purulent-inflammatory diseases of the lymph nodes, lymphatic and blood vessels. Etiology and pathogenesis. Clinical manifestations, diagnosis and treatment. 84. Abscesses and phlegmon of the neck. Classification, etiology and pathogenesis, clinical manifestations, diagnosis and treatment.
85. Purulent mediastinitis. Etiology and pathogenesis. Clinical manifestations, diagnosis and treatment.
86. Purulent paranephritis. Etiology and pathogenesis. Clinical manifestations, diagnosis and treatment.
87. Acute paraproctitis. Forms of paraproctitis. Etiology and pathogenesis. Clinical manifestations, diagnosis and treatment.
88. Acute purulent mastitis. Classification. Etiology and pathogenesis. Clinical manifestations, diagnosis and treatment.
89. Purulent parotitis. Predisposing factors, clinical signs, methods of prevention, diagnosis and treatment.
90. Peritonitis (definition). Classification.
91. Peritonitis. Etiology and pathogenesis.
92. Peritonitis. Phases of the clinical course. Symptomatology and diagnosis.
93. Peritonitis. Principles of treatment.
94. Acute purulent pleurisy and pleural empyema. Classification.
95. Acute purulent pleurisy and pleural empyema. Etiology and pathogenesis.
96. Acute purulent pleurisy and pleural empyema. Symptomatology and diagnosis. Principles of treatment.
97. Chronic pleural empyema. Etiology and pathogenesis. Clinic, diagnosis and treatment.

98. Purulent pericarditis. Etiology and pathogenesis. Clinic, diagnosis and treatment.
99. Osteomyelitis. Classification. Etiology and pathogenesis.
100. Clinical picture and diagnosis of acute hematogenous osteomyelitis.
101. Treatment of acute hematogenous osteomyelitis.
102. Chronic hematogenous osteomyelitis. Phases of clinical course, diagnosis and treatment.
103. Primary chronic (atypical) forms of osteomyelitis. Features of the clinical course. Diagnosis and treatment.
104. Purulent arthritis. Causes, clinical picture, diagnosis, principles of treatment.
105. Post-traumatic osteomyelitis. Causes. Features of the clinical course. Diagnosis and treatment.
106. Sepsis. Classification. Etiology and pathogenesis.
107. Clinical manifestations and diagnosis of sepsis.
108. Principles of complex treatment of sepsis
109. Non-clostridial anaerobic infection. Etiology and pathogenesis. Clinic, diagnosis and treatment.
110. Clostridial anaerobic infection. Putrid infection. Classification of gas gangrene. Etiology and pathogenesis. Clinic, diagnostics. Modern principles of prevention and treatment of anaerobic and putrefactive infections.
111. Specific surgical infection. Tetanus (general and local), tuberculosis, anthrax, wound diphtheria. Etiology and pathogenesis. Clinical picture. Diagnostics. Principles of prevention and treatment.
112. Wounds (definition). Classification of wounds. Complications of wounds.
113. Pathogenesis and phases of the wound process.
114. Clinical features of various types of wounds.
115. Types of wound healing.
116. Primary surgical treatment of wounds, its types. Secondary surgical treatment. Closing the wound. Types of seams.
117. Treatment of a purulent wound depending on the phase of the wound process. Modern principles of surgical treatment of purulent wounds.

118. Burns. Classification. Determination of the area and depth of burns.
119. Forecast of the course of a burn. Predicting burn severity.
120. First aid for burns.
121. Burn disease. Definition. Phases of the course of burn disease.
122. Principles of treatment of burn disease.
123. Principles of general and local treatment of thermal burns.
124. Chemical burns. First aid. Features of first aid for chemical burns of the skin, oral cavity, esophagus, stomach.
125. Electrical trauma and electrical burns. Local and general action of electric current. First aid for electrical injury. Principles of treatment of electrical burns.
126. Frostbite (definition). Classification. Periods and degrees of frostbite.
127. Clinical picture, first aid and principles of treatment for frostbite.
128. General cooling (definition). Degrees of cooling, basic principles of treatment.

129. Types of traumatic injury. Classification (types) of mechanical injuries. The concept of isolated, multiple, combined and combined injuries. 130. Bone fractures. Classification. Bone tissue regeneration. Clinical picture and diagnosis of fractures.

131. First aid for fractures. Transport immobilization. Goals, objectives, principles of implementation. Types of transport immobilization. Modern means of transport immobilization.
132. Fractures. Basic principles of treatment.
133. Dislocation (definition). Classification. Clinic and diagnostics. Complications of dislocations. First aid. Basic principles of treatment.
134. Plaster and plaster casts. Plaster bandages, splints. Basic types and rules for applying plaster casts.
135. Bruises of soft tissues. Clinic. Diagnostics. First aid and treatment.

136. Sprains. Clinic. Diagnostics. First aid and treatment.
137. Muscle and ligament ruptures. Clinic. Diagnostics. First aid and treatment.

138. Long-term compartment syndrome (definition). Pathogenesis. Periods of clinical course. Diagnostics. First aid and treatment.
139. Positional compression syndrome (definition). Clinic, diagnosis, treatment.
140. Closed and open craniocerebral injuries. Classification. Concussion, compression and contusion of the brain. Intracranial hematomas. Clinic, diagnosis and treatment.

141. Closed chest injuries. Classification. Fractured ribs, fractured sternum. Clinic. Diagnostics. Treatment.
142. Pneumothorax. Types of pneumothorax. Clinical picture and diagnosis of pneumothorax. Features of first aid for tension, valve and open pneumothorax. Principles of treatment.
143. Hemothorax. Types of hemothorax. Clinic. Diagnostics. Treatment.
144. Abdominal injury. Classification. Clinical, laboratory and instrumental diagnosis of damage to the abdominal organs and retroperitoneal space. First aid tasks. Principles of treatment.
145. Acute disturbance of arterial blood flow (acute arterial insufficiency). Main reasons. Degrees of acute ischemia of the lower limb. Clinical picture. Diagnostics. Treatment.
146. Chronic disturbance of arterial blood flow (chronic arterial insufficiency). Stages of chronic arterial insufficiency of the lower extremities. Clinical picture. Diagnostics. Surgical and conservative treatment.
147. Venous circulation disorders. Acute venous thrombosis and chronic venous insufficiency. General principles of clinical and instrumental diagnostics.

Prevention of complications. Principles of complex treatment.
148. Lymph circulation disorders. Lymphostasis. Main reasons. Principles of diagnosis and treatment.
149. Necrosis. Gangrene. Causes of occurrence. Clinical forms. Diagnostics. Principles of treatment.
150. Bedsores. Trophic ulcers. Causes of occurrence. Clinic. Diagnostics. Prevention. Principles of treatment.
151. Fistulas (definition). Classification. Clinic. Diagnostics. Basic principles of treatment.
152. Tumor (definition). Etiology and pathogenesis (oncogenesis). The concept of carcinogens.
153. Benign and malignant neoplasms, differences. Pathways of metastasis of malignant tumors. Clinical picture of tumors.
154. Clinical classification of stages of malignant neoplasms. Basic principles of tumor diagnosis.
155. Clinical groups of cancer patients. Principles of surgical treatment of tumors. Fundamentals of complex therapy of malignant tumors.
156. Echinococcosis. Clinic (stages of clinical course), diagnosis, treatment.
157. Alveococcosis. Clinic, diagnosis, treatment.
158. Congenital malformations of organs and tissues. Classification. Diagnostics. Principles of surgical treatment.
159. The concept of plastic surgery. Autoplasty, alloplasty and xenoplasty. The concept of organ and tissue transplantation. Principles of clinical transplantology.

8.4. Solving a situational problem(1 problem out of 144). Examples of situational tasks:

TASK No. 1

When preparing the surgical field for a patient with a neck carbuncle, the student treated the carbuncle with antiseptics, and then the surrounding skin.
1. Has the surgical field been processed correctly?
2. If not, how should the surgical field be treated?
3. What is the essence of the error?

TASK No. 2

A patient with an extensive granulating wound of the left thigh, which appeared after a thermal burn, was brought to the dressing room.
1. What degree of burn did the patient have?
2. What treatment method is currently indicated? What is its essence?
3. List the most commonly used donor areas.

TASK No. 3

A patient with a closed fracture of the bones of the left leg is treated in hospital for 1 month with skeletal traction. During the next control X-ray examination, it was discovered that there was poor adaptation of bone fragments. There are no signs of callus formation.
1. What is the reason for this phenomenon?
2. What type of treatment should be used?

TASK No. 4

In a sick child 5 years old after suffering from pneumonia, the development of foci of destruction in the right lung was noted, and subsequently the formation of multiple abscesses in the soft tissues. Hectic temperature and intoxication persist.
1. How can we explain the child's condition?
2. What general treatment will you prescribe?
3. Is surgical treatment indicated?
4. If yes, to what extent?

TASK No. 5

A young woman, 29 years old, a worker on a livestock farm, consulted a surgeon at a district hospital due to the presence of a small necrotic lesion on her right forearm.

ulcers with abundant serous discharge and a depressed dark center, surrounded by an inflammatory rim and a rim of vesicles located on a compacted base, with the presence of quite pronounced edema of the surrounding tissues. The patient's body temperature is 37.4$_0$C, pain syndrome, despite the pronounced swelling of the forearm, is practically absent. After examining the patient, the surgeon diagnosed an abscess carbuncle of the right forearm, after which, under local anesthesia, he dissected the infiltrate, however, no pus was obtained. After the operation, the surgeon sent the patient home, ordering her to come to the hospital for dressing in 2-3 days.
1. Was the diagnosis made correctly?
2. Was the correct treatment tactics chosen?
3. What would you do to organize treatment for this patient and what would it consist of?

9. Description of indicators and criteria for assessing competencies at the stages of their formation, description of assessment scales

	Levels of competency development		
	Threshold	***Sufficient***	***High***
Criteria	Competence to form rowana. I will demonstrate threshold, it is convenient satisfactory level vein of sustainable practical skill	Competence to form rowana. I will demonstrate there is sufficient level of self-strength, stability of practical skill	Competence to form rowana. I will demonstrate there is a high level independence, high adaptability practical skill

Competency assessment indicators and rating scales

Grade "unsatisfactory" really" (not counted) or lack formation competencies	Grade "satisfy" specifically" (passed) or accepted satisfactory (threshold) level of development competencies	Rated "good" (passed) or sufficient level mastering computer tendencies	Excellent rating (passed) or high level development competencies
Learning disability self-sufficient clearly demonstrative knowledge when solving tasks, lack self-actualization skill in applying skills. Lack of support confirmation of availability formation competencies of witnesses indicates negative solid results mastering educational disciplines	Student demonsters himself dignity in business changing knowledge skills and abilities to solve educational tasks in full in accordance with the the example given by the pre- by the submitter, upon request Denmark, the decision of the of which there were so far passionate about teaching Lem, it should be considered	Student demonsters himself adjective change in knowledge skills and abilities when solving a problem tions similar samples that are suitable confirms the presence formed competencies for higher level. Availability so competent	Student demonsters the ability ability to complete independence in choosing a method decisions are not gift assignments in within the framework of slabs using knowledge, skills and abilities, received as in during the development of data no discipline, and adjacent

	that he is competent tion has been formed satisfactory nom level.	tions for sufficient at the level of evidence indicates stably fixed practical com skill	disciplines, following blows to count com- formulate a petition raised at high com level.

Evaluation criteria for the test

Mark	Descriptors		
	strength of knowledge	**ability to explain the essence of phenomena, processes, do conclusions**	**logic and after- responsibility from veta**
passed	solid knowledge of the fundamentals processes being studied my subject area, the answer is distinguished by the depth and completeness of the topic; mastery of terminological equipment volume	ability to explain essence, phenomena, processes, events, draw conclusions and generalizations, give arguments mented from- greetings, bring measures	logic and consistency importance of answer
not accepted	insufficient knowledge subject matter being studied areas, unsatisfactory disclosure Topics; poor knowledge of the basic issues of theory, Serious errors in content answer	weak ana- skills lysis of phenomena, process owls, events, incompetence not to give argumentation attached answers, given examples are wrong	the absence is logical consistency and consistency answer

Criteria for evaluating forms of control:

Interviews:

Mark	Descriptors		
	strength of knowledge	**ability to explain the essence of phenomena, processes, do conclusions**	**logic and after- responsibility from veta**
Great	strength of knowledge, knowledge basic processes subject matter being studied area, the answer is different depends on the depth and completeness of the topic; knowledge of terminological sky apparatus; logical consistency and consistency of response	high skill of communication clarify the essence, lections, processes, salts beings, drawing conclusions and generalizations, give reasoned answers, give examples	high logic and subsequence answer

Fine	solid knowledge of the fundamentals processes being studied my subject area differs in depth and completeness of disclosure Topics; mastery of terminological apparatus; fluency in monological speech, but one or two inaccuracies in the answer are allowed	ability to explain essence, phenomena, processes, events, draw conclusions and generalizations, give arguments mented from- greetings, bring measures; however, it is permissible repents of one or two inaccuracies in the answer	logic and consistency importance of answer
satisfactory strictly	satisfactory knowledge of the processes of the subject area being studied, an answer characterized by insufficient depth and completeness of disclosure Topics; knowledge of basic theoretical issues. There may be several errors in the content of the answer.	satisfactory ability to give argumented from- tips and give examples; satisfactory well-formed advanced analysis skills phenomena, processes. Allowed non- how many errors are there in the content of the answer?	satisfactory logic and consistency importance of answer
unsatisfactory emphatically	poor knowledge of the subject area being studied, insufficient disclosure Topics; poor knowledge of basic theoretical issues, weak analysis skills phenomena, processes. Serious errors in content answer	inability to give argumented from- vets	the absence is logical consistency and consistency answer

Test control grading scale:

percentage of correct answers	Marks
91-100	Great
81-90	Fine
71-80	satisfactorily
Less than 71	unsatisfactory

Situational tasks:

Mark	**Descriptors**			
	understanding Problems	**situation analysis ations**	**solving skills** understanding of the situation	**professional thinking**
Great	complete understanding pro-mania problems. All three claims, presented to the task, you- full	high capacity property analyse situation, de- draw conclusions	high capacity property you- take the method of re- petitions problems confident solving skills understanding of the situation	high level professional thinking

Fine	complete understanding pro-mania problems. All three claims, presented to the task, you-full	ability analyzed change the situation tion, do conclusions	ability choose method decisions about problems confident solving skills understanding of the situation	sufficient level line of professional mental thinking nia. Allowed one or two inaccurate STI in the answer
satisfactory strictly	partial attention to problems. Pain-most require- introductions, presentations stated for Denmark, fulfilled nena	Satisfy telno-property ana-lyse situation, de- draw conclusions	Satisfy body solving skills understanding of the situation	sufficient level line of professional mental thinking nia. Allowed more than two inaccuracies There's nothing in the answer
unsatisfactory emphatically	misunderstanding Problems. Many requirements presentation, presenting to be assigned not fulfilled nena. No from-veta. Did not have attempts to re-sewing task	Low capacity property ana-lyse situation	Insufficient solving skills understanding of the situation	Absent

Skills:

Mark	**Descriptors**		
	consistency theoretical knowledge	**knowledge of the methodology you completion of practically ski skills**	**implementation of practical technical skills**
Great	systemic sustainable theoretical knowledge about indications and contra-indications, possible complications, norma-wah, etc.	stable knowledge of the methodology for performing practical technical skills	independence and the correctness of you-completion of practically ski skills and skills
Fine	systemic sustainable theoretical knowledge about indications and contra-indications, possible complications, norma-wah, etc., some are allowed inaccuracies that independently discovered live and quickly correct	stable knowledge of the methodology for performing practical technical skills; before-some inaccuracies are introduced, which are independently detected are corrected and quickly corrected	independence and the correctness of you-completion of practically ski skills and skills
satisfactory strictly	satisfactory theoretical knowledge about indications and contra-indications, possible	knowledge of basic changes in the methodology for performing practical skills	independence implementation of practice technical skills and

	complications, norma-wah, etc.		skills, but allowed some repent mistakes that are corrected with the power of teaching calf
unsatisfactory emphatically	low level of knowledge about indications and contraindications, possible complications, norma-wah, etc. and/or cannot independently demonstrate practical skills or performs them, making gross mistakes	low level of knowledge implementation methods practical skills	impossibility of self-independent you skill completion or skills

Report

Mark	**Descriptors**			
	Disclosure Problems	**Performance**	**Decor**	**Answers to questions millets**
Great	Problem revealed fully. Analysis carried out problems with involving additional literature. conclusions justified.	Represent-my information tion systematization posed, posed therefore and logically connected. Is-used more more than 5 professional onal ter-min.	Wide used information new technologies. None errors in represent my information.	Answers to questions full millets haunted examples and/or explain ny.
Fine	Problem revealed. Analysis carried out no problems attracting additional literature. Not all conclusions have been drawn and/or justified. Vans.	Represent-my information tion systematization posed and consequential. Used more than 2 professionals national terms.	Used information new technologies. No more than 2 errors in pre-supplied in-formations	Answers to questions full millets and/or cha-stically full
Satisfactory emphatically	Problem solved not completely. You-water is not done and/or the conclusions are not justified.	Represent-my information tion is not a system-standardized and/or not consistent Telna. Use called 1-2 pro-professional term.	Used information new technologies partially. 3-4 errors per represent my information.	Only answers on elementary questions.

Dissatisfaction create strictly	The problem is not dis-covered. None conclusions.	Represent-my information tion logically not connected. Not used	Not used vans information-tion techno-logy. More 4 errors	No answers to questions.

CHECKLIST FOR EXAMINATION PROCEDURE when using a point-rating assessment system (in case of completing the discipline with an exam)

Examination event		Points			
		Unsuccessful	Satisfied	Chorus.	Exc.
1.	Test control	0	12	16	20
2.	Practical skills	0	12	16	20
3.	Situational task	0	12	16	20
4.	Exam question 1	0	12	16	20
5.	Exam question 2	0	12	16	20
6.	Additional questions (if necessary)	0	1	3	5
7.	Questions about missed lectures	0	1	3	5
Total for the examination procedure maxi-small number of points 100		**<60**	**60-70**	**71-84**	**85-100**
Final rating					
Grade in the record book = arithmetic average of 5, 6 semester points and exam points		**<60**	**60-70**	**71-84**	**85-100**

CHECKLIST FOR EXAMINATION PROCEDURE
(checklist for the second (commission) retake if studying the discipline is completed by a test, a differentiated test, an exam)

Examination event		Points			
		Unsuccessful	Satisfied	Chorus.	Exc.
1.	Test control	0	12	16	20
2.	Practical skills	0	12	16	20
3.	Situational task	0	12	16	20
4.	Exam question 1	0	12	16	20
5.	Exam question 2	0	12	16	20
6.	Additional questions (if necessary)	0	1	3	5
7.	Questions about missed lectures	0	1	3	5
Total for the examination procedure maxi-small number of points 100		**<60**	**60-70**	**71-84**	**85-100**
Final rating					
Grade in the record book = arithmetic average of 5, 6 semester points and exam points		**<60**	**60-70**	**71-84**	**85-100**