

**No. LD-16**

**Federal State Budgetary Educational Institution of Higher Education "North Ossetian State  
Medical Academy" of the Ministry of Health of the Russian Federation**

**Department of Surgical Diseases No. 1 APPROVED by the  
minutes of the meeting of the Central Coordinating  
Educational and Methodological Council No. 4 dated March  
22, 2022**

**EVALUATION FUNDS FUND**

**in the discipline "General surgery"**

**of the main professional educational program of higher education – specialty programs in the  
specialty 31.05.01 Medical business,**

**approved on 30.03.2022**

**for 3rd year students**

**in the specialty 32.05.01 Medical business**

**Reviewed and approved at the meeting of the Department on March 21,  
2022 (Protocol No. 8)**

**Head of the department Beslekoev U.S.**

**Vladikavkaz 2022**

## **THE STRUCTURE OF THE FOS**

**1. Title page**

**2. The structure of the FOS**

**3. Review of the FOS**

**4. Passport of evaluation tools**

**5. Set of evaluation tools:**

- questions to the module

- a bank of situational tasks /practical tasks/ business games

- standards of test tasks

- examination tickets /test tickets/

## **Review**

**to the fund of evaluation funds**

**in the discipline "General Surgery"**

**for \_\_\_\_\_ students \_\_\_\_\_ 3 course\_**

**specialty \_\_\_\_\_ 31.05.01 medical business \_\_\_\_\_**

**The fund of evaluation funds was compiled at the Department of \_\_surgical Diseases No. 1 on the basis of the work program of the discipline and comply with the requirements of the Federal State Educational Standard 3+ in the specialty (direction of training) 31.05.01 medical business.**

**The Fund of evaluation funds includes:**

- questions to the module**
- a bank of situational tasks /practical tasks/ business games**
- standards of test tasks**
- examination tickets /test tickets/**

**The bank of test tasks includes the following elements: test tasks, variants of test tasks, answer templates. All tasks correspond to the general surgery work program and cover all its sections. The complexity of the tasks varies. The number of tasks for each section of the discipline is sufficient to carry out knowledge control and eliminates the repeated repetition of the same question in different versions. The bank contains answers to all test tasks and tasks.**

**The number of examination tickets is sufficient for the examination and excludes the repeated use of the same ticket during the exam in one academic group on the same day. Examination tickets are made on the forms of a single sample in a standard form, on paper of the same color and quality. The exam ticket includes 4 questions. The wording of the questions coincides with the wording of the list of questions submitted for the exam. The content of the questions of one ticket relates to various sections of the program, which allows you to more fully cover the material of the discipline.**

**In addition to the theoretical questions, a bank of situational tasks is offered (analyses, prescriptions, radiographs, electrocardiograms, etc.). Situational tasks (etc.) included in the examination ticket make it possible to objectively assess the level of student assimilation of theoretical material.**

**The complexity of the questions in the tickets is evenly distributed. There are no comments to the reviewed fund of evaluation funds. In general, the fund of evaluation funds for the discipline "General Surgery" contributes to the qualitative assessment of the level of proficiency of students with professional competencies. The peer-reviewed fund of evaluation tools for the discipline "General Surgery" can**

**be recommended for use for intermediate certification at the medical faculty of 3rd year students**

**Reviewer:**

**Head of the Department of Surgical Diseases No. 2  
, Professor Totikov V.Z.**

**Chairman of the TSUMK for Surgical Disciplines  
, Candidate of Medical Sciences M.V. Kalitseva.**

**Passport of the fund of evaluation funds for  
discipline "general surgery"**

№п/п	Наименование контролируемого раздела практики	Код формируемой компетенции	Наименование оценочного средства
1	2	3	4
<b>Вид контроля</b>	<b>Промежуточный</b>		
<b>1</b>	Asepsis. Antiseptics.	PC-1, PC-3, PC-5, PC-6, PC-10, OPK-4	Questions to the module, entrance test control, test task standards, exam tickets, situational tasks
<b>2</b>	Bleeding and stopping bleeding. Blood transfusion. Donation.	PC-1, PC-3, PC-5, PC-6, PC-10, OPK-4	Questions to the module, entrance test control, test task standards, exam tickets, situational tasks
<b>3</b>	Wounds, wound treatment.	PC-1, PC-3, PC-5, PC-6, PC-10, OPK-4	Questions to the module, entrance test control, test task standards, exam tickets, situational tasks
<b>4</b>	The doctrine of pain. Anesthesia. Inhalation anesthesia. Non-inhalation anesthesia.	PC-1, PC-3, PC-5, PC-6, PC-10, OPK-4	Questions to the module, entrance test control, test task standards, exam tickets, situational tasks
<b>5.</b>	Desmurgy. Fractures, dislocations	PC-1, PC-3, PC-5, PC-6, PC-10, OPK-4	Questions to the module, entrance test control, test task standards, exam tickets, situational tasks
<b>6.</b>	Thermal damage. Burns and frostbite. Urgent conditions.	PC-1, PC-3, PC-5, PC-6, PC-10, OPK-4	Questions to the module, entrance test control, test task standards, exam tickets, situational tasks
<b>7.</b>	Surgical infection. Sepsis.	PC-1, PC-3, PC-5, PC-6, PC-10, OPK-4	Questions to the module, entrance test control, test task standards, exam tickets, situational tasks
<b>8.</b>	Surgical operation. Pre- and postoperative period.	PC-1, PC-3, PC-5, PC-6, PC-10, OPK-4	Questions to the module, entrance test control, test task standards, exam tickets, situational tasks

## EXAM QUESTIONS

### HISTORY OF SURGERY AND ORGANIZATION OF SURGICAL HELP.

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## **HISTORY OF SURGERY AND ORGANIZATION OF SURGICAL HELP.**

1. The concept of surgery. Surgical diseases. Surgical patients.
2. Surgical deontology (a must in the relationship between surgeons and surgical patients, between students and patients).
3. The goal and tasks facing the surgeon in the study of surgical patients. Compliance with deontological principles.
4. Features of the study of surgical patients and adherence to the principles of surgical deontology.
5. The main methods of identifying the viability of the homeostatic systems of the patient's body.
6. The priority of Russian and Soviet surgery. Organization of surgical care in the Russian Federation.
7. Leading representatives of Russian and Soviet surgery.
8. Priority directions of modern Soviet and world surgery.
9. What do you know about laser surgery?
10. Endoscopy for emergency surgical diseases of internal organs. Apparatus and technique for performing fibro-esophago-gastro- and duodenoscopy, as well as bronchoscopy.
11. Methods of clinical endoscopy (apparatus, equipment).
12. The work of a surgeon in the outpatient network. Dispensary examination of surgical patients.
13. The surgical department of the hospital and the surgical department of the polyclinic.

## **TRANSFUSION OF BLOOD AND BLOOD SUBSTITUTES.**

14. The doctrine of blood groups.
15. Methodology for determining blood groups and their characteristics.
16. Donation table - blood group compatibility chart.
17. The mechanism of action of the transfused blood. Dangers of massive blood transfusion.
18. Reverse blood transfusion. Conditions. Technics.
19. Organization of the blood service in the Russian Federation. Donation and other blood sources.

20. Transfusion of certain blood components. Indications, technique.
21. Preparation, preservation and transfusion of erythrocyte mass. Indications, technique.
22. Preservation of blood, its storage and determination of suitability.
23. Blood replacement fluids. Classification, characteristics and indications for their transfusion.
24. Indications and contraindications for blood transfusion.
25. Methods and technique of blood transfusion.
26. Resus factor. Characteristics and its clinical significance. Determination of the Rh factor.
27. Posthemotransfusion reactions (pathogenesis, degree of reaction, prevention and treatment).
28. Complications of blood transfusion. Their warning.

### **ASEPTICS AND ANTISEPTICS.**

29. Asepsis. Sterilization of the dressing.
30. Methods of preparing the surgeon's hands for surgery. Advantages and disadvantages. Operation with gloves.
31. Characteristics and use of antibiotics in purulent surgery.
32. Airborne infection and its prevention. Rules of conduct for medical staff and students in the operating room. Operating unit. Device, equipment, content.
33. Antibiotics Indications for use, complications and methods of their prevention.
34. Mechanisms of action of various groups of antiseptics.
35. Basic requirements for antiseptics and their application (examples).
36. Modern methods of sterilization of the surgeon's hands, dressings and instruments.
37. Asepsis. Definition. Types and methods.
38. Endogenous and exogenous sources of infection of surgical wounds.
39. Complications and their causes during antibiotic treatment.
40. Implant infection. Penetration routes. Sterilization of lye and catgut.
41. Cold sterilization (examples).
42. What are the methods of sterilization used in medicine?
43. What dosage forms of antiseptics do you know?
44. What are the physical methods of sterilization?
45. Methods for administering antiseptics.
46. Methods for administering antibiotics. Complications associated with antibiotic therapy, their prevention and treatment.
47. Name proteolytic enzymes, methods of application and mechanism of their action in the treatment of purulent wounds.
48. Galloids used in surgical practice.
49. Sanitary and hygienic regime in the wards, operating room and dressing room for patients with gas gangrene.
50. What are the main forms of anaerobic infection in peacetime and mortality in them?

### **ANESTHESIA**

51. Methods, means and techniques for performing local anesthesia and their characteristics.
52. Clinical course of mask anesthesia: stages and levels, complications and their prevention.
53. Gas anesthesia, drugs, stages of the course, the advantages of gas anesthesia over ether.



54. Intravenous anesthesia, drugs, clinic, dangers, complications.
55. The doctrine of pain.
56. Pharmacological agents for general anesthesia (narcotic, analgesic, cholinergic agents).
57. Inhalation anesthesia. Methods of mask anesthesia, disadvantages and complications.
58. Local infiltration anesthesia. Anesthetics. Technics. Stages of local infiltration anesthesia.
59. Intubation anesthesia. Indications and contraindications. Technics. Complications.
60. Combined pain relief. Potentiated anesthesia. Controlled hypotension. Artificial hypothermia and hibernation.
61. Complications of mask anesthesia and measures to combat them.
62. Non-inhalation anesthesia. Methods, local anesthesia. Ways.
63. The essence of local and general anesthesia.
64. Theories of ether anesthesia (old and modern).
65. Advantages and disadvantages of intravenous anesthesia. Dangers, complications and their prevention.
66. Muscle relaxants. The mechanism of action of depolarizing and non-depolarizing muscle relaxants.

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68. Violation of homeostasis in bleeding. Compensatory reactions of the body during oxygen starvation and acute cropping. Collapse. Pathogenesis, clinic, treatment.
69. Adaptive reactions in case of large and massive blood loss and oxygen starvation.
70. Methods of permanent stopping of bleeding.
71. Types, dangers and outcomes of bleeding.
72. Temporary stop of bleeding. Hemostatic tourniquet (application technique, complications and their prevention).
73. Changes occurring in the internal environment of the body with more blood loss.
74. Causes of bleeding.

### **DAMAGE (INJURY)**

75. Errors and dangers in the treatment of fractures of tubular bones.
76. Callus. The main sources of callus formation. Evolution of callus. Methods for stimulating callus formation.

77. Traumatic toxicosis (traumatic compression syndrome). Conditions for the occurrence of a syndrome of prolonged compression. Leading pathogenetic factors. First pre-medical and medical aid for the syndrome of prolonged compression.
78. Electrical injury. Causes, local and general manifestations. Warning, first aid.
79. Frostbite. Classification, clinic and surgical treatment.
80. Terminal states. Their characteristics, resuscitation. Biological death criteria. Asphyxia. The reasons. Resuscitation and intensive care methods.
81. Treatment of frostbite in the pre-reactive and reactive periods.
82. Burn disease. Clinical characteristics of the phases of burn disease and treatment of patients by phase.
83. Separate types of postoperative wound complications. Causes, prevention and treatment.
84. Burns. Classification by reason and depth. Methods for determining the prevalence of burns. First aid for burns with caustic alkalis and concentrated acids. Emergency care for burns. First aid for thermal. Chemical and radiation burns. Thermal burns: factors, classification by the depth of the lesion, determination of the area of the burn.
85. First aid for open and closed bone fractures.
86. Closed soft tissue injuries.
87. Methods for the treatment of purulent wounds.
- 88 dislocations. Types and treatment. Classification, clinical presentation and diagnostics. The main methods of treatment for acquired and hostile dislocations.
89. Traumatic shock. Reasons, clinic, prevention and treatment.
90. Closed injuries of the skull and brain. Types, clinic, diagnosis, treatment, complications and their prevention in case of concussion. Treatment of concussion and contusion of the brain. The mechanism of concussion and brain injury.
91. Treatment of purulent wounds. Secondary surgical debridement of wounds and secondary suture.
92. Conditions conducive to the spread of necrosis.
93. Principles of fracture treatment.
94. Radiation sickness. Features of the course and treatment of wounds in patients with radiation sickness.
95. Closed injuries of the chest and its organs. Types, clinic, diagnostics, dangers, complications and first aid for them. Treatment.
96. Displacement of fragments during fracture of tubular bones (causes, types, prevention of secondary displacement).
97. Treatment of clean and purulent wounds. Physical methods of treatment in surgery (mechanotherapy, heat therapy, electrotherapy, ultrasound and laser beam treatment).

98. Closed injuries of the abdominal organs. Clinic, diagnosis, treatment, dangers and complications
99. Dangers and complications of trauma. First aid (transport immobilization).
- 100 Injury. Concept. Types of injuries.
101. The main methods of treatment of thermal and radiation burns.
102. Wounds. The history of the development of the doctrine of wounds. Classification. Wound infection. Clinic. Dangers. Complications. First aid. Biology of the wound process. Characteristics of the phases of the wound process.
103. Open bone fractures. Definition, treatment. Complications.
104. Treatment of wounds during the incubation period of infection. Primary surgical treatment of wounds. Primary seam.
105. Radiation injuries. Radioactive mixes. First aid and treatment.
106. Freezing, conditions of occurrence, clinic, first aid and treatment.
107. Foreign bodies. Types, routes of entry, diagnosis and treatment. Dangers and complications with them.
108. Defeat by atmospheric electricity. Mechanism, clinic, prevention, first aid, treatment and prevention.
109. Name the conditions conducive to frostbite and freezing.
110. Features of the study of patients with acute trauma.

### **DESMURGY.**

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112. Plaster. Properties. Technique for making plaster bandages. Applying and removing plaster casts. Complications and their removal.

### **SURGICAL INFECTION.**

113. Acute purulent infection. The reaction of the body. The principles of treatment of purulent diseases. General questions of acute purulent surgical infection. Etiology, pathogenesis.
114. Separate types of purulent processes (furuncle, carbuncle, hydradenitis). Dangers, complications with them.
115. Sepsis. Classification. Pathogenesis. Clinic. Treatment. Prevention.
116. Lymphangitis. Lymphadenitis. Etiology, pathogenesis, treatment.
117. Purulent arthritis. Etiology, pathogenesis, clinical picture, treatment.
118. Inflammatory diseases of the blood vessels. Thrombophlebitis.

119. Separate types of surgical tuberculosis. Osteoarticular tuberculosis. Phases of the evolution of osteoarticular tuberculosis according to Kornev.
120. Erysipelas. Etiology. Pathogenesis. Clinic. Treatment.
121. Osteomyelitis. Hematogenous osteomyelitis. Pathogenesis, clinic, treatment.
122. Anaerobic infection. Pathogens. Clinic, treatment, prevention. Clinic, prevention, treatment of gas gangrene.
123. Panaritium. Etiology, types, clinic and treatment.
124. Phlebitis. Phlebothrombosis. Thrombophlebitis.
125. Prevention of specific acute wound infection (tetanus, anthrax, rabies).
126. Phlegmon, abscess, lymphadenitis. Etiopathogenesis, clinical picture, treatment.
127. Gangrene. Views. General principles of treatment.
128. General purulent infection (pathogenesis, clinical picture, diagnosis, treatment).
129. Basic principles of treatment of acute purulent infection (conservative measures, surgical treatment).
130. Tetanus. Etiology, pathogenesis, clinic, prevention and treatment.
131. Peritonitis. Etiopathogenesis, classification, clinical picture, treatment and prevention. Purulent peritonitis. Sources of infection in the abdominal cavity. Clinic and treatment.
132. Mastitis. Etiopathogenesis, clinical picture, prevention, treatment.
133. Pathogenesis, clinical picture, prevention and treatment of candidiasis.
134. Surgical parasitic diseases: actinomycosis, ascariasis, echinococcosis, opisthorchiasis.
135. The main four forms of anaerobic wound infection (gas gangrene) in peacetime (name the pathogens, forms of the disease and indicate the lethality in them).
136. The main types of specific surgical infection.
137. Abscesses of the lungs and liver.
138. Classification of purulent arthritis.
139. Classification of purulent pleurisy.

### **SURGERY.**

140. The period of the operation. Concept. Classification. Its main stages. Control of the body functions of the operated patient. Dangers and complications.
141. Preoperative period. Preparing the patient for surgery. Preoperative conclusion. Direct preparation of patients for surgery and pain relief.
142. Physiotherapy exercises in the postoperative period.

143. Postoperative period. Postoperative phases. Vascular and cardiac complications, prevention and treatment. Violation of homeostasis and its normalization.

144. Postoperative period. Prevention and treatment of respiratory complications.

#### **DISORDER OF BLOOD AND LYMPH CIRCULATION.**

145. Thrombosis and embolism in surgery (thrombophlebitis, phlebothrombosis).

146. Circulatory disorders. Causes and consequences (necrosis, ulcers, fistulas).

147. Fistulas and ulcers. Causes, classification, treatment.

148. Obliterating endarteritis.

#### **TUMORS.**

149. Benign tumors of connective tissue origin.

150. Benign tumors of epithelial origin.

151. Malignant tumors of epithelial origin.

152. Modern methods of research and treatment of cancer patients.

153. Precancerous diseases of the abdominal organs.

154. Endogenous and exogenous carcinogenic factors. Cancer prevention.

155. Methods for the diagnosis of malignant and benign tumors.

156. The main methods of treatment of malignant tumors. Principles of surgical treatment of malignant tumors.

157. Theories of malignant growth.

158. The concept of tumors. Classification, theory of the origin of malignant tumors. Organization of cancer care in the USSR.

159. Malignant tumors of connective tissue origin.

160. Precancerous conditions of various tissues and organs.

161. Modern methods of diagnosis and treatment of malignant tumors (give examples).

#### **DEVELOPMENTAL ANOMALIES AND RELATED THEM**

#### **DISEASES.**

162. Types of anomalies in the development of the digestive system.

163. Types of anomalies in the development of the organs of the face and oral cavity.

164. Endogenous and exogenous factors in the development of congenital surgical diseases of the abdominal organs.

165. Types of anomalies in the development of the musculoskeletal system.

166. Types of anomalies in the development of the skull and brain.
167. Types of anomalies in the development of the organs of the urinary system.
168. Endogenous and exogenous factors of anomaly. The clinical significance of malformations.
169. Anomalies of the development of the head and neck and their surgical treatment.
170. Malformations and their causes.
171. Hereditary and congenital surgical diseases. Malformations of the abdominal organs. The reasons. Pathogenesis.

### **PLASTIC OR RECOVERY SURGERY.**

172. Plastic surgery. The main problems of tissue incompatibility and ways to overcome them.
173. Legal and ethical basis for the removal of organs and tissues for their transplantation.
174. Removal of organs and tissues from the deceased, conditions of removal, storage and transplantation.
175. Artificial tissues and organs in plastic surgery.
176. Basic and unsolved problems in transplantation.
177. Methods of preservation of tissues and organs.
178. Methods of skin grafting (free and non-free).
179. Preservation and transplantation of bones, vessels and organs.
180. What do you know about heart transplant?
181. Transplant of organs and tissues (auto-, homo-, hetero-, and alloplasty). Preservation of tissues and organs.

ЛД-16 ИИ

Federal State Budgetary Educational Institution of Higher Education "North Ossetian State Medical Academy" of the Ministry of Health of the Russian Federation

Department of Surgical Diseases No. 1

Standards of test tasks

in the discipline "GENERAL SURGERY"

the main professional educational program of higher education - the program of the specialist inspecialties 31.05.01 Medicine,  
approved on 30.03.2022

for \_\_\_\_\_ students \_\_\_\_\_ 3 courses

in the specialty \_\_\_\_\_ 31.05.01 Medicine

Reviewed and approved at a meeting of the department  
dated March 03, 2022 (Protocol No. 8)

Head of the Department Beslekov Uruzmag Salamonovich

Vladikavkaz 2022

## COLLOQUIUM "ASEPTICS-ANTISEPTICS"

### OPTION # 1

**one. Pathways of endogenous wound contamination:**a) through non-sterile surgical instruments; b) penetration directly from a hollow organ; c) through the hands of medical personnel;d) through the bacterially contaminated exudate of the abdominal cavity; e) with a flow of lymph or blood from a purulent-inflammatory focus. Choose the correct combination of answers:

- 1) a B C.
- 2) c, d, d.
- 3) a, d, d.
- 4) b, d, d.
- 5) everything is true.

**2. There are the following types of operating room cleaning:**

- A. before the start of the working day;
- B. after each operation;
- V. current;
- G. daily;
- D. general;
- E. all of the above;

**3. Sterilized in formalin vapors:**

- A) bathrobes;
- B) cystoscopes;
- B) latex gloves;
- D) syringes;
- D) the hands of the surgeon.

Choose the correct answer.

**four. The treatment of the surgeon's hands with chlorhexidine lasts:**

- BUT) 1 min;
- B) 3 min;
- IN) 5 minutes;
- D) 10 min.

Choose the correct answer.



**five. To process the surgical field, use everything listed below, except:**

- A. organic iodine-containing substances;
- B. 0.5% alcoholic solution of chlorhexidine;
- V. Pervomura;
- D. gluing sterile films;
- D. alcoholic tincture of iodine;

**6. Antiseptics of the oxidizing group are: a) chlorhexidine bigluconate; b) potassium permanganate; c) hydrogen peroxide; d) dioxidine; e) iodopyrone. Choose the correct combination of answers:**

- 1) a, b.
- 2) b, c.
- 3) in, g.
- 4) d, d.
- 5) everything is true.

**7. What drugs belong to the group of activating nonspecific immunobiological reactivity?**

- 1) Anti-gangrenous serum.
- 2) Staphylococcal toxoid.
- 3) Prodigiosan.
- 4) Levamisole.
- 5) Anti-tetanus serum.
- 6) Thymus extract.

Choose the correct combination of answers: A - 1, 3, 4; B - 2, 4, 6; B - 3, 4, 6; G - 3, 4, 5; D - 4, 5, 6.

**eight. Which method is a mechanical antiseptic?**

- BUT) Flow-through wound drainage.
- B) Vacuum wound drainage.
- IN) Primary surgical treatment of the wound.
- D) Ultrasonic wound cavitation.
- D) Flow enzymatic dialysis.

Choose the correct answer.

**nine. What drugs increase nonspecific immunological protection:**

- 1) prodigiosan;
- 2) staphylococcal toxoid;
- 3) lysozyme;
- 4) bacteriophage;
- 5) levamisole.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 3, 4; B - 1, 3, 4; G - 1, 3, 5; D - 1, 4, 5.

**10. Choose basic physical antiseptic methods.**

Pick all the correct answers

- A. Application of hygroscopic material;
- B. The use of drains;
- B. The use of a hypertonic solution;
- G. Sorbents;
- D. Proteolytic enzymes;
- E. Toilet of the wound;

### **SITUATION PROBLEM**

After the completion of the operations, the nurse began to process the instruments used during the purulent operation under running water, and the used surgical material (napkins, balls, tampons, etc.) was immersed in a bag and thrown into the trash bin.

What mistakes did she make, and what dangerous consequences could they lead to?

### **COLLOQUIUM "ASEPTICS-ANTISEPTICS"**

#### **OPTION # 2**

**one. Cold sterilization products include:**

1. ultra-violet rays;
2. ionizing radiation;
3. ultrasonic waves;
4. formalin vapors;
5. autoclaving.

Choose the correct combination of answers: A - 1, 2, 4, 5; B -2, 5; B - 1, 3, 4, 5; G - 1, 2, 3, 4; D - 1, 2, 3, 5.

**2. What test indicators are used to determine the performance of an autoclave?**

Pick all the correct answers

- A. Thermal indicator;
- B. Sulfur;
- B. Benzoic acid;
- G. Uchevina;
- D. Antipyrine;

**3. Select basic methods for sterilizing cutting instruments.**

Pick all the correct answers

- A. Autoclaving;

B. Processing in a dry heat cabinet;

B. Beam method;

D. Chemical method;

**four. Pathways of endogenous wound contamination:**a) through non-sterile surgical instruments; b) penetration directly from a hollow organ; c) through the hands of medical personnel;d) through the bacterially contaminated exudate of the abdominal cavity; e) with a flow of lymph or blood from a purulent-inflammatory focus. Choose the correct combination of answers:

- 1) a B C.
- 2) c, d, d.
- 3) a, d, d.
- 4) b, d, d.
- 5) everything is true.

**five. Which of the following applies to methods of prevention of the contact pathway for the spread of microflora?**a) sterilization of linen; b) sterilization of instruments; c) sterilization of suture material; d) processing of the surgeon's hands; e) processing of the surgical field. Choose the correct combination of answers:

- 1) a B C D.
- 2) a, c, d, e.
- 3) a, b, c, e.
- 4) b, c, d, e.
- 5) a, b, d, e.

**6. Antiseptics belonging to the group of halogens and halogenated compounds are:** a) potassium permanganate; b) sodium hypochlorite; c) dioxidine; d) povidoniod; e) iodonate. Choose the correct combination of answers:

- 1) a, c.
- 2) b, d.
- 3) c, d, d.
- 4) b, d, d.
- 5) everything is true.

**7. Proteolytic enzymes of animal origin are:**

- 1) papain;
- 2) trypsin;
- 3) chymotrypsin;
- 4) streptokinase;
- 5) terrilitin.

Choose the correct combination of answers: A - 1, 2, 3; B - 3, 5; B - 2, 3; G - 2, 3, 4; D - 1, 4.

**eight. The methods of biological antiseptics include:**

- 1) the use of vaccines and serums;
- 2) the use of sulfonamides;
- 3) the use of nitrofurans;
- 4) the use of antibiotics;
- 5) the use of proteolytic enzymes.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 3, 4; B - 1, 4, 5; G - 1, 2, 5; D - 1, 3, 5.

**nine. Select means of passive specific immunization.**

**Pick all the correct answers**

- A. Serums;
- B. Antitoxins;
- B. Hyperimmune plasma;
- D. Tetanus toxoid;

**10. When are antibiotics given to prevent postoperative complications?**

**Pick all the correct answers**

- A. On the morning of the day of surgery;
- B. 30 minutes after the operation;
- B. During the operation;
- D. Within 1-2 days after surgery;

### **SITUATION PROBLEM**

The patient was admitted to the emergency room in a state of moderate severity, with severe abdominal pain, with a picture of peritonitis. How much sanitization will it have to do?

### **COLLOQUIUM "ASEPTICS-ANTISEPTICS"**

#### **OPTION # 3**

**one. Choose the main routes for the spread of exogenous infection.**

Pick all the correct answers

- A. Airborne;
- B. Household;
- V. Contact;
- G. Whey;
- D. Implantation;

**2. Pathways of endogenous wound contamination:**a) through non-sterile surgical instruments; b) penetration directly from a hollow organ; c) through the hands of medical personnel;d) through the bacterially contaminated exudate of the abdominal cavity; e) with a flow of lymph or blood from a purulent-inflammatory focus. Choose the correct combination of answers:

- 1) a B C.

- 2) c, d, d.
- 3) a, d, d.
- 4) b, d, d.
- 5) everything is true.

**3. The sterilization time of surgical instruments in an autoclave under a pressure of 2 atm is:**

- A) 2 hours;
- B) 45 minutes;
- B) 1 h;
- D) 20 minutes;
- D) 1.5 hours

Choose the correct answer.

**four. Select basic methods of glove sterilization.**

Pick all the correct answers

- A. Autoclaving;
- B. Dry oven;
- B. Boiling;
- D. Boiling in sublimate;
- D. Luchevea;

**five. Sterilize the operating clothes in an autoclave at a steam pressure of 2 atm. follows:**

- BUT) 2h;
- B) 1h;
- IN) 45 minutes;
- D) 30 minutes;
- D) 20 minutes.

Choose the correct answer.

**6. What methods are considered physical antiseptics? a) ultsonic cavitation of the wound; b) antibiotic-novocaine blockade of a purulent-inflammatory focus; c) vacuum aspiration; d) treatment of wounds with a solution of an effective antiseptic; e) the use of laser radiation. Choose the correct combination of answers:**

- 1) a, d, d.
- 2) a, 6, c.
- 3) c, d, d.
- 4) a, c, d.
- 5) a, c, d.

**7. Active immunization of a patient can be performed using the following drugs:**

- 1) staphylococcal toxoid;
- 2) antistaphylococcal  $\gamma$ -globulin;
- 3) bacteriophage;
- 4) levamisole.
- 5) tetanus toxoid.

Choose the correct combination of answers: A - 1, 3, 4; B - 1, 2, 4; B - 1.2, 3; G - 2, 3; D - 1, 4, 5.

**eight. An antiseptic belonging to the halogen group is:**

- A) potassium permanganate;
- B) hydroxymethylquinoxylindioxide;
- B) phenol;
- D) iodine;
- D) silver nitrate.

Choose the correct answer.

**nine. How long does a gauze pad remain hygroscopic?**

- A. 2 h;
- B. 4 hours;
- V. 8 h;
- G. 24 h;
- D. 2-3 days;

**10. Antiseptics is a set of measures aimed at:**

- A. prevention of infection in the wound;
- B. elimination of infection on the skin and mucous membranes of the patient;
- B. destruction of infection in the wound, pathological focus and the patient's body;
- D. the fight against infectious diseases;

**SITUATION PROBLEM**

A patient was admitted to the clinic about post-injection anaerobic gangrene caused by *Cl. perfringens*, operated on. What to do with bed and underwear, furniture in the ward, instruments, surgical drapes and dressings used during the operation?

**OLLOQUIUM "ASEPTICS-ANTISEPTICS"**

## OPTION # 4

**one. Which of the following applies to methods of prevention of the contact pathway for the spread of microflora?** a) sterilization of linen; b) sterilization of instruments; c) sterilization of suture material; d) processing of the surgeon's hands; e) processing of the surgical field. Choose the correct combination of answers:

- 1) a B C D.
- 2) a, c, d, e.
- 3) a, b, c, e.
- 4) b, c, d, e.
- 5) a, b, d

**2. Pathways of endogenous wound contamination:** a) through non-sterile surgical instruments; b) penetration directly from a hollow organ; c) through the hands of medical personnel; d) through the bacterially contaminated exudate of the abdominal cavity; e) with a flow of lymph or blood from a purulent-inflammatory focus. Choose the correct combination of answers:

- 1) a B C.
- 2) c, d, d.
- 3) a, d, d.
- 4) b, d, d.
- 5) everything is true.

**3. What are the possible modes of sterilization of the dressing in an autoclave?**

Pick all the correct answers

- A. 1.5 atm. - 30 minutes;
- B. 1.5 atm. - 45 minutes;
- V. 1.5 atm. - 1 hour;
- G. 2 atm. - 30 minutes;
- D. 2 atm. - 45 minutes;
- E. 2 atm. - 1 hour;

**four. Which of the indirect methods of sterility control is the most reliable?**

BUT) Pressure gauge readings.

- B) Thermometry.
- IN) Melting antipyrine.
- D) Melting benzoic acid.
- D) Bacteriological control.

Choose the correct answer.

**five. Cold sterilization products include:**

1. ultra-violet rays;

2. ionizing radiation;
3. ultrasonic waves;
4. formalin vapors;
5. autoclaving.

Choose the correct combination of answers: A - 1, 2, 4, 5; B - 2, 5; B - 1, 3, 4, 5; G - 1, 2, 3, 4; D - 1, 2, 3, 5.

**6. The action of proteolytic enzymes in purulent processesugar consists in: a) lysis of necrotic tissues; b) increased blood clotting; c) fibrinolysis; d) potentiating the action of antibiotics; e) antibacterial action; f) anti-inflammatory action. Choose the correct combination of answers:**

one) a B C.

2) a, c, d.

3) b, e, f.

four) b, d, f.

five) everything is true.

**7. What drugs increase nonspecific immunological protection:**

1. prodigiosan;
2. staphylococcal toxoid;
3. lysozyme;
4. bacteriophage;
5. levamisole.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 3, 4; B - 1, 3, 4; G - 1, 3, 5; D - 1, 4, 5.

**eight. An antiseptic related to oxidizing agents is:**

- 1) hydrogen peroxide;
- 2) potassium permanganate;
- 3) phenol;
- 4) chloramine;
- 5) silver nitrate.

Choose the correct combination of answers: A - 2, 3; B - 2, 3, 4; B - 3, 4, 5; G - 1, 2; D - 1, 3, 4.

**nine. Which of the following can be attributed to complications of antibiotic therapy?**

**Pick all the correct answers**

A. Allergic reactions;

B. Dysbacteriosis;

B. Toxic effect on internal organs;

D. Bleeding;

E. Formation of resistant strains of microorganisms;



**10. Sutures placed after what time after surgery are called primary delayed?**

- A. 12 h;
- B. 24 hours;
- H. 72 h;
- G. 1–5 days;
- D. 7 days;

### **SITUATION PROBLEM**

After performing the purulent operation, the operating nurse thoroughly washed the scalpel and scissors in an alkaline solution, treated them with mercuric chloride for 25 minutes and boiled them in a soda solution for 45 minutes. What gross mistakes did your sister make and what method of sterilization would you choose?

### **COLLOQUIUM "ASEPTICS-ANTISEPTICS"**

#### **OPTION # 5**

**one. Sterilization of instruments that have been in contact with anaerobic infection is carried out:**

- A) burning;
- B) autoclaving for 1 hour;
- B) boiling in sodium bicarbonate solution for 30 minutes;
- D) fractional sterilization;
- D) vapors of formalin.

Choose the correct answer.

**2. For the treatment of the hands of the surgeon, everything listed below is currently used, except:**

- A. ammonia;
- B. Pervomura;
- B. chlorhexidine;
- G. AHD;

**3. Which of the following methods is used to sterilize cystoscopes, laparoscopes, thorascopes?**

- 1) Burning.
- 2) Boil for 30 min in 2% sodium bicarbonate solution.
- 3) Autoclaving.
- 4) Gas sterilization.
- 5) Sterilization in alcoholic chlorhexidine solution.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 3; B - 2, 4; G - 2, 5; D - 4, 5.

**four. Organizational asepsis measures include:**a) the use of disposable underwear, suture material, instrumentation; b) disinfection of the personnel's hands before and after each contact with the patient; c) identification and sanitation of bacteria carriers in the hospital; d) primary surgical treatment of wounds; e) the use of antibiotics. Choose rightthe correct combination of answers:

- 1) in, g.
- 2) a B C.
- 3) b, c, d.
- 4) c, d, d.
- 5) a, d.

**five. TO exogenous sources of contamination of surgical wounds include:**a) bacterially contaminated exudate of the abdominal cavity; b) the carrier of bacteria among medical personnel; c) non-sanitized foci of chronic infection in a patient; d) microbial contamination of the hands of surgeons and instruments; e) microbial air pollution in operating rooms, wards and dressing rooms. Choose rightthe correct combination of answers:

- 1) a, c, d.
- 2) d, d.
- 3) b, c.
- 4) b, d, d.
- 5) a, c.

**6. Indications for prophylactic use of antibioticsin surgery are:** a) operations in patients with primary immunodeficiency; b) operations associated with the implantation of foreign material (vascular grafts, heart valves, etc.); c) operations for widespread peritonitis; d) operations associated with the removal of varicose veins of the lower extremities; e) planned hernia repair. Choose the correct combination of answers:

- 1) a B C.
- 2) b, c, d.
- 3) a, c, d.
- 4) c, d, d.
- 5) a, b, d.

**7. What drugs belong to chemical antiseptics:**

- 1) penicillins;
- 2) formalin;
- 3) nystatin;
- 4) nitrofurazone;
- 5) hydroxymethylquinoxilindioxide.

Choose the correct combination of answers; A - 1, 3, 4; B - 2, 4, 5; B - 2, 3, 4; G - 3, 4, 5; D - 2, 3, 5.

**8. Proteolytic enzymes of animal origin are:**

- one) papain;
- 2) trypsin;
- 3) chymotrypsin;
- 4) streptokinase;
- 5) terrilitin.

Choose the correct combination of answers: A - 1, 2, 3; B - 3, 5; B - 2, 3; G - 2, 3, 4; D - 1, 4.

**9. Which of the following is referred to as chemical antiseptics of the halogen group?**

**Pick all the correct answers**

- A. Nitrofurazone;
- B. Iodine;
- V. Iodinol;
- G. Yodonat;
- D. Lugol's solution;
- E. Lizol;
- J. Chlorhexidine;

**10. Who coined the term "antiseptic"?**

- A. J. Lister;
- B. N.I. Pirogov;
- W. J. Pringle;
- G. I. Semmelweis;

**SITUATION PROBLEM**

In a planned manner, within one month, 40 patients were operated on by the same surgeon. Of these, 5 had wound suppuration, 2 had suture divergence.

What is the cause of complications and how to identify the cause?

**COLLOQUIUM "ASEPTICS-ANTISEPTICS"**

**OPTION # 6**

**one. Pre-sterilization preparation of instruments should include everything listed below, except:**

- A. disinfection;
- B. soaking in a washing solution;
- B. washing under running water;
- G. short-term boiling;
- D. drying;

**2. The following sterilization regime is observed in dry ovens:**

- A) 0.5 h at 200 ° C;
- B) 1 hour at 180 ° C;

- B) 1 h at 220 ° C;
- D) 2 h at 180 ° C;
- D) 2 h at 220 ° C.

Choose the correct answer.

**3. What are the possible modes of sterilization of the dressing in an autoclave?**

Pick all the correct answers

- A. 1.5 atm. - 30 minutes;
- B. 1.5 atm. - 45 minutes;
- V. 1.5 atm. - 1 hour;
- G. 2 atm. - 30 minutes;
- D. 2 atm. - 45 minutes;
- E. 2 atm. - 1 hour;

**four. Which of the following applies to methods of prevention of contact infection?**

- 1) sterilization of linen.
- 2) sterilization of instruments.
- 3) suture sterilization.
- 4) treatment of the surgeon's hands.
- 5) processing of the operating field.

Choose the correct combination of answers: A - 1, 2, 3, 4; B - 1, 5; B - 1, 2, 3, 5; G - 2, 3, 4, 5; D - 1, 2, 4, 5.

**five. As one of the measures for the prevention of airborne infection, when examining the medical staff, they carry out:**

- A. blood sampling for Australian antigen and RW;
- B. bacterial inoculation for the dysentery group;
- B. bacterial culture for enterobiasis;
- D. bacterial culture from the nasopharynx;
- D. study of washes from the hands of personnel;

**6. Which method is a mechanical antiseptic?**

- A) Flow-through wound drainage.
- B) Vacuum wound drainage.
- B) Primary surgical treatment of the wound.
- D) Ultrasonic wound cavitation.
- D) Flow enzymatic dialysis.

Choose the correct answer.

**7. High energy laser beams have the following effects:**

- 1) change chemical reactions in tissues;
- 2) increase the temperature in the tissues;
- 3) destroy microorganisms;
- 4) sharply increase intracellular and interstitial pressure;
- 5) enhance the multiplication of young cells.

Choose the correct combination of answers: A - 1, 3; B - 1, 5; B - 2, 4, 5; G - 3, 4, 5; D - 2, 3.

**eight. The mechanism of action of proteolytic enzymes in purulent processes is:**

- 1) lysis of necrotic tissues;
- 2) increased blood clotting;
- 3) fibrinolysis;
- 4) potentiation of the action of antibiotics;
- 5) anti-edema action.

Choose the correct combination of answers: A - 1, 2, 3, 4; B - 1, 3, 4, 5; B - 1, 2, 4, 5; G - 1, 2, 3, 5; D - 2, 3, 4, 5.

**9. Specify drugs that stimulate nonspecific immunity.**

**Pick all the correct answers**

- A. Vitamins;
- B. Lysozyme;
- B. Interferons;
- G. Interleukins;
- D. Bacteriophages;

**10. Active immunization of the patient can be performed using the following blowing drugs:**

1. staphylococcal toxoid;
2. antistaphylococcal  $\gamma$ -globulin;
3. bacteriophage;
4. levamisole.
5. tetanus toxoid.

Choose the correct combination of answers: A - 1, 3, 4; B - 1, 2, 4; B - 1, 2, 3; G - 2, 3; D - 1, 4, 5.

**SITUATION PROBLEM**

The patient was diagnosed with pediculosis during examination in the admission ward.

How much sanitization will you do? The further fate of the patient?

## COLLOQUIUM "ASEPTICS-ANTISEPTICS"

### OPTION # 7

#### 1. Which of the following can become a source of endogenous infection?

Pick all the correct answers

- A. Implants;
- B. Inflammatory skin diseases;
- B. Postoperative scars;
- D. Chronic inflammatory diseases of internal organs;

#### 2. Which of the following applies to methods of preventing contact infection?

- 1) sterilization of linen.
- 2) sterilization of instruments.
- 3) suture sterilization.
- 4) treatment of the surgeon's hands.
- 5) processing of the operating field.

Choose the correct combination of answers: A - 1, 2, 3, 4; B - 1, 5; B - 1, 2, 3, 5; G - 2, 3, 4, 5; D - 1, 2, 4, 5.

#### 3. Hand treatment pervurohm provides:

- 1. washing hands with brushes;
- 2. washing hands with running water and soap;
- 3. washing hands with a first meal for 1 min;
- 4. washing hands with a first meal for 3 minutes;
- 5. lubrication of the nail phalanges with iodine solution.

Choose the correct combination of answers: A - 1, 4, 5; B - 2, 3; B - 2, 4; G - 1, 3, 5; D - 2, 3, 5.

#### four. To process the surgical field, use everything listed below, except:

- A. organic iodine-containing substances;
- B. 0.5% alcoholic solution of chlorhexidine;
- V. Pervomura;
- D. gluing sterile films;
- D. alcoholic tincture of iodine;

#### five. Sterilized in formalin vapors:

- A) bathrobes;
- B) cystoscopes;
- B) latex gloves;

- D) syringes;
- D) the hands of the surgeon.

Choose the correct answer.

**6. Physical antiseptic methods include:**

- 1) drainage of the wound;
- 2) washing the wound with chlorhexidine solution;
- 3) necrectomy;
- 4) ultrasonic cavitation;
- 5) immunotherapy.

Choose the correct combination of answers: A - 1, 2; B - 2, 3; B - 1, 4; G - 2, 4; D - 3, 5.

**7. Who coined the term "antiseptic"?**

- A. J. Lister;
- B. N.I. Pirogov;
- W. J. Pringle;
- G. I. Semmelweis;

**eight. Of the listed antibiotics, ototoxic and nephrotoxic effects are exerted by:**

- A) penicillins;
- B) aminoglycosides;
- B) tetracyclines;
- D) cephalosporins;
- D) macrolides.

Choose the correct answer.

**9. Select the stages of the initial surgical debridement of the wound.**

**Pick all the correct answers**

- A. Dissection;
- B. Excision of the edges, walls, bottom of the wound, removal of hematomas, foreign bodies;
- B. Mandatory suturing of the wound;
- D. Wound drainage;
- D. Opening of streaks and pockets;

**10. The mechanism of action of proteolytic enzymes in purulent processes is:**

- one. lysis of necrotic tissues;
- 2. increased blood clotting;
- 3. fibrinolysis;
- four. potentiation of the action of antibiotics;
- five. anti-edema action.

Choose the correct combination of answers: A - 1, 2, 3, 4; B - 1, 3, 4, 5; B - 1, 2, 4, 5; G - 1, 2, 3, 5; D - 2, 3, 4, 5.

### SITUATION PROBLEM

The patient was diagnosed with pediculosis during examination in the admission ward.

How much sanitization will you do? The further fate of the patient?

### COLLOQUIUM "ASEPTICS-ANTISEPTICS"

#### OPTION # 8

**one. Select basic methods for sterilizing cutting instruments.**

Pick all the correct answers

- A. Autoclaving;
- B. Processing in a dry heat cabinet;
- B. Beam method;
- D. Chemical method;

**2. TO Which of the following substances are used to treat the hands of a surgeon?**

- 1. Pervomur.
- 2. Novosept.
- 3. Donor.
- 4. Ethanol.
- 5. Chloramine.

Choose the correct combination of answers: A - 1, 2, 3, 4; B - 1, 2, 3, 5; B - 2, 3, 4, 5; G - 1, 3, 5; D - 1, 2, 4, 5.

**3. Pre-sterilization preparation of instruments should include everything listed below, except:**

- A. disinfection;
- B. soaking in a washing solution;
- B. washing under running water;
- G. short-term boiling;
- D. drying;



**four. All of the above are considered sources of contact infection, except:**

- A. skin of the patient;
- B. hands of the surgeon;
- B. catheters, drains;
- G. of operating clothes;
- D. dressing material;
- E. surgical instruments;

**five. Which of the following can become a source of endogenous infection?**

Pick all the correct answers

- A. Implants;
- B. Inflammatory skin diseases;
- B. Postoperative scars;
- D. Chronic inflammatory diseases of internal organs;

**6. The methods of biological antiseptics include:**

1. the use of vaccines and serums;
2. the use of sulfonamides;
3. the use of nitrofurans;
4. use of antibiotics;
5. the use of proteolytic enzymes.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 3, 4; B - 1, 4, 5; G - 1, 2, 5; D - 1, 3, 5.

**7. Select the stages of the initial surgical debridement of the wound.**

**Pick all the correct answers**

- A. Dissection;
- B. Excision of the edges, walls, bottom of the wound, removal of hematomas, foreign bodies;
- B. Mandatory suturing of the wound;
- D. Wound drainage;
- D. Opening of streaks and pockets;

**eight. Indications for prophylactic use of antibiotics in surgery are: a) operations in patients with primary immunodeficiency; b) operations associated with the implantation of foreign material (vascular grafts, heart valves, etc.); c) operations for widespread peritonitis; d) operations associated with the removal of varicose veins of the lower extremities; e) planned hernia repair. Choose the correct combination of answers:**

1. a B C.
2. b, c, d.
3. a, c, d.
4. c, d, d.
5. a, b, d.

**nine. What drugs belong to chemical antiseptics:**

1. penicillins;
2. formalin;
3. nystatin;
4. nitrofurazone;
5. hydroxymethylquinoxilindioxide.

Choose the correct combination of answers; A - 1, 3, 4; B - 2, 4, 5; B - 2, 3, 4; G - 3, 4, 5; D - 2, 3, 5.

**10. An antiseptic belonging to the halogen group is:**

- A) potassium permanganate;
- B) hydroxymethylquinoxilindioxide;
- B) phenol;
- D) iodine;
- D) silver nitrate.

Choose the correct answer.

### **SITUATION PROBLEM**

For the first time in his life, a patient with purulent arthritis was injected intramuscularly with an antibiotic (lincomycin). After 20-30 minutes, the patient's body became covered with red spots, itchy skin and swelling of the lips appeared. What complication did the patient have? What tactical mistake was made? How to stop the onset of the complication?

### **COLLOQUIUM "ASEPTICS-ANTISEPTICS"**

#### **OPTION # 9**

**one. All of the above are considered sources of contact infection, except:**

- A. skin of the patient;
- B. hands of the surgeon;
- B. catheters, drains;

G. of operating clothes;

D. dressing material;

E. surgical instruments;

**2. Which of the following can become a source of endogenous infection?**

Pick all the correct answers

A. Implants;

B. Inflammatory skin diseases;

B. Postoperative scars;

D. Chronic inflammatory diseases of internal organs;

**3. Sterilize surgical drapes in an autoclave at a steam pressure of 2 atm. follows:**

BUT) 2h;

B) 1h;

IN) 45 minutes;

D) 30 minutes;

D) 20 minutes.

Choose the correct answer.

**four. The treatment of the surgeon's hands with chlorhexidine lasts:**

BUT) 1 min;

B) 3 min;

IN) 5 minutes;

D) 10 min.

Choose the correct answer.

**five. The first round of hand treatment includes:**

1. washing hands with brushes;
2. washing hands with running water and soap;
3. washing hands with a first meal for 1 min;
4. washing hands with a first meal for 3 minutes;
5. lubrication of the nail phalanges with iodine solution.

Choose the correct combination of answers: A - 1, 4, 5; B - 2, 3; B - 2, 4; G - 1, 3, 5; D - 2, 3, 5.

**6. What methods are considered physical antiseptics?**

- 1) Ultrasonic wound cavitation.
- 2) Antibiotic-procaine blockade of a purulent-inflammatory focus.
- 3) Flow dialysis.
- 4) Cauterization of superficial wounds with a solution of silver nitrate.
- 5) Vacuum wound drainage.

Choose the correct combination of answers: A - 1, 4, 5; B - 1, 2, 3; B - 3, 4, 5; G - 1, 3, 4; D - 1, 3, 5.

7. Sutures placed after what time after surgery are called primary delayed?

- A. 12 h;
- B. 24 hours;
- H. 72 h;
- G. 1–5 days;
- D. 7 days;

**8. Antiseptics belonging to the group of halogens and halogenated compounds are: a) potassium permanganate; b) sodium hypochlorite; c) dioxidine; d) povidoniod; e) iodonate. Choose the correct combination of answers:**

1. a, c.
2. b, d.
3. c, d, d.
4. b, d, d.
5. everythingistrue.

**9. What drugs belong to the group of activating nonspecific immunobiological reactivity?**

1. Anti-gangrenous serum.
2. Staphylococcal toxoid.
3. Prodigiosan.
- four. Levamisole.
- five. Anti-tetanus serum.
6. Thymus extract.

Choose the correct combination of answers: A - 1, 3, 4; B - 2, 4, 6; B - 3, 4, 6; G - 3, 4, 5; D - 4, 5, 6.

**10. Proteolytic enzymes of animal origin are:**

1. Papain;
2. trypsin;
3. chymotrypsin;
4. streptokinase;
5. terrilitin.

Choose the correct combination of answers: A - 1, 2, 3; B - 3, 5; B - 2, 3; G - 2, 3, 4; D - 1, 4.

## SITUATION PROBLEM

The operating nurse put the dressing in the box in the following order: large napkins on the bottom; the next layer is medium-sized gauze wipes and the last layer is containers with gauze balls. After that, the box was loaded into the autoclave along with the rest. What mistakes were made by the operating nurse?

## COLLOQUIUM "ASEPTICS-ANTISEPTICS"

### OPTION No. 10

**one. Organizational asepsis measures include:** a) the use of disposable underwear, suture material, instrumentation; b) disinfection of the personnel's hands before and after each contact with the patient; c) identification and sanitation of bacteria carriers in the hospital; d) primary surgical treatment of wounds; e) the use of antibiotics. Choose the correct combination of answers:

1. in, g.
2. a B C.
3. b, c, d.
4. c, d, d.
5. a, d.

**2. Which of the following applies to methods of preventing contact infection?**

1. sterilization of linen.
2. sterilization of instruments.
3. suture sterilization.
4. treatment of the surgeon's hands.
5. processing of the operating field.

Choose the correct combination of answers: A - 1, 2, 3, 4; B - 1, 5; B - 1, 2, 3, 5; G - 2, 3, 4, 5; D - 1, 2, 4, 5.

**3. Cold sterilization products include:**

1. ultra-violet rays;
2. ionizing radiation;
3. ultrasonic waves;
4. formalin vapors;
5. autoclaving.

Choose the correct combination of answers: A - 1, 2, 4, 5; B - 2, 5; B - 1, 3, 4, 5; G - 1, 2, 3, 4; D - 1, 2, 3, 5.

**four. What test indicators are used to determine the performance of an autoclave?**

Pick all the correct answers

- A. Thermal indicator;
- B. Sulfur;
- B. Benzoic acid;
- G. Uchevina;
- D. Antipyrine;

**five. What are the main components of C-4?**

- A) Hydrogen peroxide + ethanol.
- B) Hydrogen peroxide + formic acid.
- B) Hydrogen peroxide + ammonia solution.
- D) Hydrogen peroxide + methyl alcohol.
- D) Hydrogen peroxide + mercury dichloride.

Choose the correct answer.

**6. An antiseptic related to oxidizing agents is:**

- 1. hydrogen peroxide;
- 2. potassium permanganate;
- 3. phenol;
- 4. chloramine;
- 5. silver nitrate.

Choose the correct combination of answers: A - 2, 3; B - 2, 3, 4; B - 3, 4, 5; G - 1, 2; D - 1, 3, 4.

**7. Select the main methods of physical antiseptics.**

**Pick all the correct answers**

- A. Application of hygroscopic material;
- B. The use of drains;
- B. The use of a hypertonic solution;
- G. Sorbents;
- D. Proteolytic enzymes;
- E. Toilet of the wound;

**eight. The action of proteolytic enzymes in purulent processessugar consists in: a) lysis of necrotic tissues; b) increased blood clotting; c) fibrinolysis; d) potentiating the action of antibiotics; e) antibacterial action; f) anti-inflammatory action. Choose the correct combination of answers:**

- one) a B C.
- 2) a, c, d.
- 3) b, e, f.
- four) b, d, f.
- five) everything is true.

**nine. Of the listed antibiotics, ototoxic and nephrotoxic effects are exerted by:**

- A) penicillins;
- B) aminoglycosides;
- B) tetracyclines;
- D) cephalosporins;
- D) macrolides.

Choose the correct answer.

**10. Indications for prophylactic use of antibiotics in surgery are: a) operations in patients with primary immunodeficiency; b) operations associated with the implantation of foreign material (vascular grafts, heart valves, etc.); c) operations for widespread peritonitis; d) operations associated with the removal of varicose veins of the lower extremities; e) planned hernia repair. Choose the correct combination of answers:**

- 1. a, b, c.
- 2. b, c, d.
- 3. a, c, d.
- 4. c, d, d.
- 5. a, b, e.

#### **SITUATION PROBLEM**

What sanitary standards are provided for the surgical ward (area, wall height, temperature and humidity)?

#### **COLLOQUIUM "ASEPTICS-ANTISEPTICS"**

##### **OPTION No. 11**

**one. Choose the main routes for the spread of exogenous infection.**

Pick all the correct answers

- A. Airborne;
- B. Household;
- V. Contact;
- G. Whey;
- D. Implantation;

**2. As one of the measures for the prevention of airborne infection, when examining the medical staff, they carry out:**

- A. blood sampling for Australian antigen and RW;
- B. bacterial inoculation for the dysentery group;
- B. bacterial culture for enterobiasis;
- D. bacterial culture from the nasopharynx;
- D. study of washes from the hands of personnel;

**3. Which of the following methods is used to sterilize cystoscopes, laparoscopes, thoroscopes?**

- 1. Burning.
- 2. Boil for 30 min in 2% sodium bicarbonate solution.
- 3. Autoclaving.
- 4. Gas sterilization.
- 5. Sterilization in alcoholic chlorhexidine solution.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 3; B - 2, 4; G - 2, 5; D - 4, 5.

**four. The sterilization time of surgical instruments in an autoclave under a pressure of 2 atm is:**

- A) 2 hours;
- B) 45 minutes;
- B) 1 h;
- D) 20 minutes;
- D) 1.5 hours

Choose the correct answer.

**five. Select basic methods of glove sterilization.**

Pick all the correct answers

- A. Autoclaving;
- B. Dry oven;
- B. Boiling;
- D. Boiling in sublimate;
- D. Luchevea;

**6. An antiseptic belonging to the halogen group is:**

- A) potassium permanganate;
- B) hydroxymethylquinoxilindioxide;



- B) phenol;
- D) iodine;
- D) silver nitrate.

Choose the correct answer.

**7. The methods of biological antiseptics include:**

1. the use of vaccines and serums;
2. the use of sulfonamides;
3. the use of nitrofurans;
4. use of antibiotics;
5. the use of proteolytic enzymes.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 3, 4; B - 1, 4, 5; G - 1, 2, 5; D - 1, 3, 5.

**8. What methods are related to physical antiseptics? a) ultrasonic cavitation of the wound; b) antibiotic-novocaine blockade of a purulent-inflammatory focus; c) vacuum aspiration; d) treatment of wounds with a solution of an effective antiseptic; e) the use of laser radiation. Choose the correct combination of answers:**

1. a, d, e.
2. a, 6, c.
3. c, d, d.
4. a, c, d.
5. a, c, d.

**9. Select the stages of the initial surgical debridement of the wound.**

**Pick all the correct answers**

- A. Dissection;
- B. Excision of the edges, walls, bottom of the wound, removal of hematomas, foreign bodies;
- B. Mandatory suturing of the wound;
- D. Wound drainage;
- D. Opening of streaks and pockets;

**10. Sutures placed after what time after surgery are called primary delayed?**

- A. 12 h;
- B. 24 hours;
- H. 72 h;

G. 1–5 days;

D. 7 days;

### SITUATION PROBLEM

A 55-year-old patient was taken to the hospital from the scene of the car accident. On examination, there is a deep crushed wound with scraps of clothing in the area of the left thigh. During the revision of the wound, foreign bodies were removed, the wound was thoroughly washed with antiseptic solutions. In view of the absence of bleeding, it was decided to suture the wound in layers, carefully matching the edges. Which was done.

What mistakes were made? What is the further tactics of conducting?

### COLLOQUIUM "ASEPTICS-ANTISEPTICS"

#### OPTION No. 12

**one. All of the above are considered sources of contact infection, except:**

- A. skin of the patient;
- B. hands of the surgeon;
- B. catheters, drains;
- G. of operating clothes;
- D. dressing material;
- E. surgical instruments;

**2. Which of the following can become a source of endogenous infection?**

Pick all the correct answers

- A. Implants;
- B. Inflammatory skin diseases;
- B. Postoperative scars;
- D. Chronic inflammatory diseases of internal organs;

**3. The following sterilization regime is observed in dry ovens:**

- BUT) 0.5 h at 200 ° C;
- B) 1 hour at 180 ° C;
- IN) 1 h at 220 ° C;
- D) 2 h at 180 ° C;
- D) 2 h at 220 ° C.

Choose the correct answer.

**four. Which of the indirect methods of sterility control is the most reliable??**

BUT) Pressure gauge readings.

B) Thermometry.

IN) Melting antipyrine.

D) Melting benzoic acid.

D) Bacteriological control.

Choose the correct answer.

**five. Cold sterilization products include:**

1. ultra-violet rays;
2. ionizing radiation;
3. ultrasonic waves;
4. formalin vapors;
5. autoclaving.

Choose the correct combination of answers: A - 1, 2, 4, 5; B -2, 5; B - 1, 3, 4, 5; G - 1, 2, 3, 4; D - 1, 2, 3, 5.

**6. Of the listed antibiotics, ototoxic and nephrotoxic effects are exerted by:**

A) penicillins;

B) aminoglycosides;

B) tetracyclines;

D) cephalosporins;

D) macrolides.

Choose the correct answer.

**7. Select means of passive specific immunization.**

**Pick all the correct answers**

A. Serums;

B. Antitoxins;

B. Hyperimmune plasma;

D. Tetanus toxoid;

**eight. Antiseptics of the oxidizing group are: a) chlorhexidine bigluconate; b) potassium permanganate; c) hydrogen peroxide; d) dioxidine; e) iodopyrone. Choose the correct combination of answers:**

1. a, b.

- 2. b, c.
- 3. in, g.
- 4. g, d.
- 5. everything is true.

**9. Which of the following is referred to as chemical antiseptics of the halogen group?**

**Pick all the correct answers**

- A. Nitrofurantoin;
- B. Iodine;
- V. Iodinol;
- G. Yodonat;
- D. Lugol's solution;
- E. Lizol;
- J. Chlorhexidine;

**10. When are antibiotics administered to prevent postoperative complications?**

**Pick all the correct answers**

- A. On the morning of the day of surgery;
- B. 30 minutes after the operation;
- B. During the operation;
- D. Within 1-2 days after surgery;

### **SITUATION PROBLEM**

A 55-year-old patient was taken to the hospital from the scene of the car accident. On examination, there is a deep crushed wound with scraps of clothing in the area of the left thigh. During the revision of the wound, foreign bodies were removed, the wound was thoroughly washed with antiseptic solutions. In view of the absence of bleeding, it was decided to suture the wound in layers, carefully matching the edges. Which was done.

What mistakes were made? What is the further tactics of conducting?

### **COLLOQUIUM "ASEPTICS-ANTISEPTICS"**

#### **OPTION No. 13**

**one. All of the above are considered sources of contact infection, except:**

- A. skin of the patient;
- B. hands of the surgeon;

- B. catheters, drains;
- G. of operating clothes;
- D. dressing material;
- E. surgical instruments;

**2. Choose the main routes for the spread of exogenous infection.**

Pick all the correct answers

- A. Airborne;
- B. Household;
- V. Contact;
- G. Whey;
- D. Implantation;

**3. Sterilized in formalin vapors:**

- A) bathrobes;
- B) cystoscopes;
- B) latex gloves;
- D) syringes;
- D) the hands of the surgeon.

Choose the correct answer.

**four. Sterilization of instruments that have been in contact with anaerobic infection is carried out:**

- A) burning;
- B) autoclaving for 1 hour;
- B) boiling in sodium bicarbonate solution for 30 minutes;
- D) fractional sterilization;
- D) vapors of formalin.

Choose the correct answer.

**five. The sterilization time of surgical instruments in an autoclave under a pressure of 2 atm is:**

- A) 2 hours;
- B) 45 minutes;
- B) 1 h;

D) 20 minutes;

D) 1.5 hours

Choose the correct answer.

**6. What drugs belong to chemical antiseptics:**

one) penicillins;

2) formalin;

3) nystatin;

four) nitrofurazone;

five) hydroxymethylquinolone.

Choose the correct combination of answers; A - 1, 3, 4; B - 2, 4, 5; C - 2, 3, 4; D - 3, 4, 5; E - 2, 3, 5.

**7. When are antibiotics administered to prevent postoperative complications?**

**Pick all the correct answers**

A. On the morning of the day of surgery;

B. 30 minutes after the operation;

C. During the operation;

D. Within 1-2 days after surgery;

**8. Antiseptics - a set of measures aimed at:**

A. prevention of infection in the wound;

B. elimination of infection on the skin and mucous membranes of the patient;

C. destruction of infection in the wound, pathological focus and the patient's body;

D. the fight against infectious diseases;

**9. How long does a gauze swab remain hygroscopic?**

A. 2 h;

B. 4 hours;

C. 8 h;

D. 24 h;

E. 2-3 days;

**10. What drugs increase nonspecific immunological protection:**

1. prodigiosan;
2. staphylococcal toxoid;
3. lysozyme;
4. bacteriophage;
5. levamisole.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 3, 4; C - 1, 3, 4; D - 1, 3, 5; E - 1, 4, 5.

#### **SITUATION PROBLEM**

A patient after a severe stroke in the sacrococcygeal region developed bedsores with areas of necrosis tightly adhered to the underlying tissues. In view of the severity of the condition, the attending physician refrained from necrectomy under anesthesia. Ointment dressings and treatment of the skin around the KMnO<sub>4</sub> solution are performed to prevent wound infection.

Which antiseptic method would be useful in this case?

#### **COLLOQUIUM "ASEPTICS-ANTISEPTICS"**

##### **OPTION No. 14**

**one. There are the following types of operating room cleaning:**

- A. before the start of the working day;
- B. after each operation;
- C. current;
- D. daily;
- E. general;
- F. all of the above;

**2. Choose the main routes for the spread of exogenous infection.**

Pick all the correct answers

- A. Airborne;
- B. Household;
- C. Contact;
- D. Whey;
- E. Implantation;

**3. Pre-sterilization preparation of instruments should include everything listed below, except:**

- A. disinfection;
- B. soaking in a washing solution;
- B. washing under running water;
- G. short-term boiling;
- D. drying;

**four. The following sterilization regime is observed in dry ovens:**

BUT) 0.5 h at 200 ° C;

B) 1 hour at 180 ° C;

IN) 1 h at 220 ° C;

D) 2 h at 180 ° C;

D) 2 h at 220 ° C.

Choose the correct answer.

**five. Select basic methods for sterilizing cutting instruments.**

Pick all the correct answers

- A. Autoclaving;
- B. Processing in a dry heat cabinet;
- B. Beam method;
- D. Chemical method;

**6. The mechanism of action of proteolytic enzymes in purulent processes is:**

1. lysis of necrotic tissue;
2. increased blood clotting;
3. fibrinolysis;
4. potentiation of the action of antibiotics;
5. anti-edematous action.

Choose the correct combination of answers: A - 1, 2, 3, 4; B - 1, 3, 4, 5; B - 1, 2, 4, 5; G - 1, 2, 3, 5; D - 2, 3, 4, 5.

**7. Specify drugs that stimulate nonspecific immunity.**

**Pick all the correct answers**

- A. Vitamins;
- B. Lysozyme;



- B. Interferons;
- G. Interleukins;
- D. Bacteriophages;

**8. Which of the following can be attributed to the complications of antibiotic therapy?**

**Pick all the correct answers**

- A. Allergic reactions;
- B. Dysbacteriosis;
- B. Toxic effect on internal organs;
- D. Bleeding;
- E. Formation of resistant strains of microorganisms;

**9. Select the main methods of physical antiseptics.**

**Pick all the correct answers**

- A. Application of hygroscopic material;
- B. The use of drains;
- B. The use of a hypertonic solution;
- G. Sorbents;
- D. Proteolytic enzymes;
- E. Toilet of the wound;

**10. What drugs belong to chemical antiseptics:**

- 1) penicillins;
- 2) formalin;
- 3) nystatin;
- 4) nitrofurazone;
- 5) hydroxymethylquinoxilindoxide.

Choose the correct combination of answers; A - 1, 3, 4; B - 2, 4, 5; B - 2, 3, 4; G - 3, 4, 5; D - 2, 3, 5.

**SITUATION PROBLEM**

The patient was admitted to the emergency room in a state of moderate severity, with severe abdominal pain, with a picture of peritonitis. How much sanitization will it have to do?

**COLLOQUIUM "BLEEDING. TRANSFUSION OF BLOOD, IN BLOOD "**

**OPTION # 1**

**1. What circumstances can contribute to secondary early bleeding from a postoperative wound? a) slipping of the ligature from the vessel; b) bleeding from small non-ligated vessels; c) local application of cold to relieve pain; d) hyperbilirubinemia; e) a sharp increase in blood pressure; f) arrosion of the vessel due to suppuration of the wound; g) canned blood transfusion. Choose the correct combination of answers:**

- 1) a, b, c, f.
- 2) c, d, f, g.
- 3) d, e, f, g.
- 4) a, b, d, e.
- 5) a, c, f, g.

**2. Indicate in which of the following cases air embolism is possible:**

- A) when the veins of the lower extremities are injured;
- B) when the subclavian vein is injured;
- B) with a penetrating knife wound of the knee joint and hemarthrosis;
- D) when the spleen is injured;
- D) in case of injury to a large arterial trunk on the thigh.

Choose the correct answer.

**3. Assess the severity of blood loss in a volume of 600 ml for an adult with body weight 70 Kg...**

- A. Light degree;
- B. Medium;
- B. Severe degree;
- D. Massive blood loss;

**4. In relation to the external environment, the following types of bleeding are distinguished:**

**Pick all the correct answers**

- A. hidden;
- B. outdoor;
- B. secondary;
- G. explicit;
- D. internal;

**5. Which of the listed types of bleeding are internal?**

**Pick all the correct answers**

- A. Bleeding from ulcers of the gastrointestinal tract;

- B. Bleeding into the abdominal cavity with ruptured spleen;
- B. Renal bleeding;
- D. Hematomas of soft tissues;
- D. Hemarthrosis;
- E. Uterine bleeding;

**6. When determining the blood group using tsoliclones, agglutination is absent with both reagents (anti-A and anti-B). What group is the blood being analyzed?**

- 1) 0 (I).
- 2) A (P).
- 3) B (W).
- 4) AB (IV).
- 5) no conclusion can be drawn.

**7. When determining the blood group, a positive isohemagglutination reaction with standard sera A (II) and B (III) groups and negative - with sera of 0 (I) and AB (IV) groups. What does this result indicate?**

BUT) about group 0 (I) test blood.

- B) about group A (II).
- IN) about group B (III).
- D) about the group AB (IV).
- D) about the unsuitability of standard sera.

Choose the correct answer.

**8. Select contraindications for reinfusion in hemoperitoneum.**

- A. The patient has an infectious disease;
- B. Burdened allergic history;
- B. Combination with rupture of hollow organs;
- D. Disorders of the blood coagulation system;
- D. Unstable hemodynamics;

**nine. What blood elements contain agglutinins?**

- A) blood serum.
- B) leukocytes.
- B) erythrocytes.
- D) platelets.
- D) monocytes.

Choose the correct answer.

**10. Which of the following drugs are referred to as blood substitutes for detoxification action?**

Pick all the correct answers

- A. Polidez;
- B. Dextran [cf. molecular weight 50,000-70,000];
- B. Plasmosteril;
- G. Neocompensation;
- D. Gemodez;

**A TASK**

A 20-year-old patient underwent primary surgical treatment of a hip wound. 1.5 hours after the operation, the dressing was soaked with blood, which oozed between the stitches.

State the cause of the bleeding and the actions needed to stop the bleeding.

**COLLOQUIUM "BLEEDING. TRANSFUSION OF BLOOD, IN BLOOD "**

**OPTION # 2**

**1. The methods of temporary stopping of bleeding include: a) the imposition of a pressure bandage; b) the imposition of a hemostatic tourniquet; c) introduction of a hemostatic sponge into the wound; d) electrocoagulation of a bleeding vessel; e) ligation of the vessel; f) the imposition of a hemostatic clamp; g) flashing the vessel. Choose the correct combination of answers:**

- 1) a, b, f.
- 2) a, c, e, f.
- 3) b, d, f.
- 4) c, d, d.
- 5) everything is true.

**2. In the first hours with severe bleeding, the amount of blood loss most accurately reflects:**

- A) relative density of blood;
- B) hemoglobin content;
- B) hematocrit;
- D) erythrocyte content;
- D) change in BCC indicators.

Choose the correct answer.

**3. Who first suggested using vessel ligation as a method of stopping bleeding?**

- A. N.I. Pirogov;
- B. K. Galen;
- V. Hippocrates;

G. Avicenna;

D. K. Cels;

**4. The cause (s) of early secondary bleeding may be:**

**Pick all the correct answers**

A. damage to the vessel wall;

B. slipping of the ligature;

B. increase in blood pressure;

D. ejection of a blood clot;

D. suppuration of the wound;

**5. Due to what is the compensation for the decrease in the BCC in acute blood loss?**

**Pick all the correct answers**

A. Vasodilation;

B. Arteriolo-spasm;

B. Oliguria;

G. Venospasm;

D. Autohemodilution;

E. Tachycardia;

**6. When determining the blood group using tsoliclones, agglutination is observed with anti-B tsoliclones. What group is the blood being analyzed?**

- 1) 0 (I).
- 2) A (P).
- 3) In (III).
- 4) AB (IV).
- 5) no conclusion can be drawn.

**7. A test for individual blood compatibility is carried out between:**

BUT) plasma or serum of the patient and the blood of the donor;

B) donor plasma and patient's blood;

IN) shaped elements of the patient's blood and the blood of the donor;

D) shaped elements of the donor's blood and the patient's blood;

D) whole blood of the donor and whole blood of the patient.

Choose the correct answer.

**8. When mixing human blood with standard isohemagglutinating sera of four blood groups, the agglutination reaction occurred with sera I, III. Determine your blood type.**

- A. I group;
- B. II group;
- B. III group;
- D. IV group;
- E. More research should be done;

**nine. What blood elements are agglutinogens in?**

- A) in blood plasma.
- B) in blood serum.
- B) in leukocytes.
- D) in erythrocytes.
- D) in platelets.

Choose the correct answer.

**10. Which of the following drugs are referred to as hemodynamic blood substitutes?**

Pick all the correct answers

- A. Dextran [cf. molecular weight 50,000-70,000];
- B. Gemodez;
- V. Dextran [molecular weight 30 000-40 000];
- G. Gelatin;

#### **A TASK**

The patient has a closed chest injury. The condition is severe: tachycardia, tachypnea, breathing on the left is not carried out, the percussion sound is shortened.

Indicate the presumptive diagnosis and plan of examination of the patient.

### **COLLOQUIUM "BLEEDING. TRANSFUSION OF BLOOD, IN BLOOD "**

#### **OPTION # 3**

**one. In which of the following cases is air embolism possible:**

- 1) when the veins of the lower extremities are injured;
- 2) when the subclavian vein is injured;
- 3) with a penetrating knife wound of the knee joint and hemarthrosis;

- 4) when the spleen is injured;
- 5) in case of injury to a large arterial trunk on the thigh.

**2. The cause of late secondary bleeding is:**

1. increase in blood pressure;
2. purulent fusion of a thrombus;
3. elimination of vascular spasm;
4. erosion of the vessel wall;
5. injury to the vessel, slipping of the ligature.

Choose the correct combination of answers: A - 1, 2; B - 2, 3, 4; B - 2, 3, 5; G - 2, 4; D - 1, 2, 4.

**3. Select the main phases of blood coagulation.**

**Pick all the correct answers**

- A. Thromboplastin formation;
- B. Transition of prothrombin to thrombin;
- B. Conversion of proconvertine to convertible;
- D. Fibrin formation;
- D. retraction of the clot;

**4. Assess the severity of blood loss in a volume of 600 ml for an adult with body weight 70 Kg..**

- A. Light degree;
- B. Medium;
- B. Severe degree;
- D. Massive blood loss;

**5. Select the main common symptoms of profuse bleeding.**

**Pick all the correct answers**

- A. Decrease in blood pressure;
- B. Bradycardia;
- B. Arrhythmia;
- D. Pallor of the skin;
- D. Tachycardia;
- E. Moisture of the skin;

**6. When determining the blood group in the ABO system with standard isohemagglutinating sera, a positive agglutination reaction with standard sera was revealed in 0 (I) and A (II) groups and negative with B (III). What group does the blood under study belong to?**

- 1) 0 (I).
- 2) A (II).
- 3) B (III).
- 4) AB (IV).
- 5) no conclusion can be drawn.

**7. Indications for blood transfusion are determined by:**

- 1) an allergic condition of the patient;
- 2) a state of shock;
- 3) the presence of hepatic renal failure;
- 4) the need to replenish blood loss;
- 5) the presence of avitaminosis in the patient.

Choose the correct combination of answers: A - 1, 2; B - 1, 3; B - 2, 3; D - 2, 4; D - 4, 5.

**8. Select the definition of exchange transfusion.**

A. Transfusion of blood into the vascular bed of the patient, which he lost as a result of surgery, trauma or pathological process;

B. Transfusion of donor blood simultaneously with exfusion of the patient's own blood;

B. Blood transfusion directly from donor to recipient;

**nine. Symptoms of deterioration of the patient's condition during transfusion of poor-quality blood are:**

one) increased hematocrit;

2) chills;

3) hyperthermia;

4) pain in the lumbar region;

5) tachycardia.

Choose the correct combination of answers: A - 1, 2, 3, 4; B - 2, 3, 4; B - 1, 3, 4, 5; G - 2, 4, 5; D - 2, 3, 4, 5.

**10. The main properties of detoxification blood substitutes are:**

- 1) dilution of blood;
- 2) changes in the physicochemical properties of blood;
- 3) high absorption properties;
- 4) increased renal filtration;
- 5) enhancing the detoxification function of the liver.

Choose the correct combination of answers: A - 1, 3, 4; B - 2, 3, 4; B - 3, 4; G - 3, 4, 5; D - 3, 5.

### **A TASK**

Immediately after the termination of the mortar shelling, the company sanitary instructor was summoned to the serviceman with a mine wound to the right lower limb and traumatic amputation of the right lower leg at the level of the middle third. Initial examination by a sanitary instructor revealed excitement and euphoria of the victim, pallor



of the skin, frequent threadlike pulse (130 per minute, arterial hypotension 80/40 mm Hg), discharge of scarlet blood in a pulsating stream from the stump of the right leg.

one. What is your presumptive diagnosis? Indicate the main pathogenetic aspects of this suffering.

2. Indicate the main actions of the company medical officer.

Indicate the main treatment measures during the evacuation of the victim and upon delivery to the hospital.

## COLLOQUIUM "BLEEDING. TRANSFUSION OF BLOOD, IN BLOOD "

### OPTION # 4

**1. Which of the listed types of bleeding are internal? a) bleeding from gastroduodenal ulcers; b) bleeding into the abdominal and pleural cavities with penetrating wounds; c) renal bleeding; d) hematomas of soft tissues; e) hemarthrosis; f) intestinal bleeding; g) uterine bleeding. Choose the correct combination of answers:**

- 1) a, b, d
- 2) b, c, d.
- 3) a, e, f.
- 4) a, c, g.
- 5) b, d, d.

**2. What is the cause of early secondary bleeding:**

1. suppuration of the wound;
2. injury to the vessel;
3. ejection of a blood clot;
4. slipping of the ligature;
5. increased blood pressure.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 3, 5; B - 3, 4, 5; G - 2, 4, 5; D - 4, 5.

**3. Select the main phases of blood coagulation.**

**Pick all the correct answers**

- A. Thromboplastin formation;
- B. Transition of prothrombin to thrombin;
- B. Conversion of proconvertine to convertible;
- D. Fibrin formation;
- D. retraction of the clot;

**4. What indicators are used to assess the degree and severity of blood loss?**

**Pick all the correct answers**

- A. The number of erythrocytes;
- B. Hemoglobin content;

- B. Hematocrit;
- D. Specific gravity of blood;
- D. Specific gravity of urine;
- E. Daily urine output;

**5. List the symptoms of blood loss with profuse vomiting of "coffee grounds".**

**Pick all the correct answers**

- A. Loss of consciousness due to displacement of the median structures of the brain by intracranial hematoma;
- B. Falling blood pressure;
- B. Tachycardia;
- D. Sharp suppression of cardiac activity during cardiac tamponade;
- D. Decreased hematocrit;
- E. Decrease in the content of hemoglobin in the peripheral blood;
- G. Peritoneal symptoms in hemoperitoneum;
- H. Pallor of the skin;

**6. A test for individual blood compatibility is carried out between:**

- 1) plasma or serum of the patient and the blood of the donor;
- 2) donor plasma and patient's blood;
- 3) shaped elements of the patient's blood and the blood of the donor;
- 4) shaped elements of the donor's blood and the patient's blood;
- 5) whole blood of the donor and whole blood of the patient.

**7. When determining the blood group using tsoliclones, agglutination is absent with anti-A and anti-B tsoliclones. What group is the blood being analyzed?**

BUT)0 (I).

B) BUT(II).

IN) IN(III).

D) AB (IV).

Choose the correct answer.

**eight. Symptoms of deterioration of the patient's condition during transfusion of poor -quality blood are:**

- 1) increased hematocrit;
- 2) chills;
- 3) hyperthermia;
- 4) pain in the lumbar region;
- 5) tachycardia.

Choose the correct combination of answers: A - 1, 2, 3, 4; B - 2, 3, 4; B - 1, 3, 4, 5; G - 2, 4, 5; D - 2, 3, 4, 5.

**nine. A test for individual blood compatibility is carried out between:**

- BUT) plasma or serum of the patient and the blood of the donor;  
B) donor plasma and patient's blood;  
IN) shaped elements of the patient's blood and the blood of the donor;  
D) shaped elements of the donor's blood and the patient's blood;  
D) whole blood of the donor and whole blood of the patient.

Choose the correct answer.

**10. With full parenteral nutrition, the total transfusion volume is:**

- BUT) 500-1000 ml;  
B) 1500-2000 ml;  
IN) 2500-3000 ml;  
D) 3500 ml;  
D) more than 3500 ml.

Choose the correct answer.

#### A TASK

An emergency laparotomy for a stab-cut penetrating wound of the anterior abdominal wall revealed a wound on the right lobes of the liver measuring 10x5 cm with abundant outflow of dark blood from it.

- Using the features of the cut known to you from the course of anatomy replenishment of the liver, indicate the method of temporarily stopping bloodflow in this case.
- Indicate the possible ways of final hemostasis in this situation.

#### COLLOQUIUM "BLEEDING. TRANSFUSION OF BLOOD, IN BLOOD "

##### OPTION # 5

**one. The causes of secondary late bleeding are: a) increased blood pressure; b) purulent melthrombus; c) elimination of vascular spasm; d) arrosion of the vessel wall; e) injury to the vessel; f) slipping of the ligature. Choose the correct combination of answers:**

- a, b.
- c, d, f.
- b, c, d.
- b, d.

5) a, d, f.

**2. What localization of the bleeding source is Melena typical for?**

- A) llight.
- B) the upper part of the gastrointestinal tract.
- B) Prye gut.
- D) bud.
- D) spleen.

Choose the correct answer.

**3. What indicators are used to assess the degree and severity of blood loss?**

**Pick all the correct answers**

- A. The number of erythrocytes;
- B. Hemoglobin content;
- B. Hematocrit;
- D. Specific gravity of blood;
- D. Specific gravity of urine;
- E. Daily urine output;

**four. The pressure bandage is shown as a temporary stop method. bleeding with:**

- 1) bleeding from the veins of the forearm;
- 2) damage to the carotid artery;
- 3) bleeding from the soft tissues of the head;
- 4) injured popliteal fossa;
- 5) bleeding from the soft tissues of the chest wall.

Choose the correct combination of answers: A - 2, 3, 5; B - 1, 3, 4; B - all answers are correct; G - 1, 3, 5.

**five. Due to what is the natural compensation for the decrease in BCC in acute blood loss and the viability of the organism is maintained?**

- 1) vasoconstriction.
- 2) increased CVP.
- 3) autohemodilution.
- 4) vasodilation.
- 5) centralization of blood flow.

Choose the correct combination of answers: A - 1, 4, 5; B - 1, 3, 5; B - 1, 2, 4; G - 2, 4, 5; D - 2, 3, 4.

**6. Clinical manifestations of blood transfusion shock: a) pain in a stomach; b) tachycardia; c) bradycardia; d) drop in blood pressure; e) back pain. Choose the correct combination of answers:**

- 1) aBC.

- 2) b, d.
- 3) c, d, d.
- 4) b, d, d.
- 5) a, c, d, e.

**7. Agglutination is observed with anti-B tsoliclones. What group is the blood being analyzed?**

BUT) 0 (I).

B) BUT(II).

IN) IN(III).

D) AB (IV).

Choose the correct answer.

**eight. The indications for blood transfusion are:**

- 1) acute blood loss;
- 2) purulent intoxication;
- 3) acute thrombophlebitis;
- 4) acute tuberculosis;
- 5) shock.

Choose the correct combination of answers: A - 1, 2, 5; B - 2, 3, 5; B - 3, 4, 5; G - 2, 4, 5; D - 1, 3, 5.

**9. In what case is a biological sample not carried out?**

**Pick all the correct answers**

- A. Blood transfusion with continued bleeding;
- B. Blood transfusion during surgery under general anesthesia;
- B. Blood transfusion of a relative;
- D. Autologous blood transfusion;

**10. What blood substitute is used for dehydration?**

BUT) soybean oil + triglycerides.

B) 4% sodium bicarbonate solution.

IN) dextran [cf. pier weight 50,000-70,000].

D) mannitol.

D) protein solution.

Choose the correct answer.

### **A TASK**

A man injured in an accident was delivered to the emergency department For 40 years he was driving a car with unfastened seat belts. According to the patient, when the car collided with an obstacle, he received a strong blow from the steering wheel in the stomach. At the time of examination, the patient complained of some weakness,

"flies before the eyes", minor pain in the lower abdomen. When examining the patient by the surgeon on duty, no damage to the musculoskeletal system was detected, moderate pallor of the skin is noted, the pulse rate is 105 per 1 minute, the blood pressure is 110/70 mm Hg, the abdomen is not swollen, participates in breathing, is slightly tense in the meso- and hypogastrium, there is moderately painful. In the mesogastrium - a hematoma measuring 10x4 cm. The patient, referring to urgent matters and good health, intends to leave the hospital.

- one. What is your presumptive diagnosis? Indicate the main pathogenetic aspects of this suffering.
2. What are the extra diagnostic measures appropriate in relation to this sick?
3. Indicate the main areas of treatment in relation to this patient.

## COLLOQUIUM "BLEEDING. TRANSFUSION OF BLOOD, IN BLOOD "

### OPTION # 6

**one. The methods of final stopping of bleeding include: a) introduction of a hemostatic sponge into the wound; b) the imposition of a pressure bandage; c) electrocoagulation of a bleeding vessel; d) the imposition of a hemostatic tourniquet; e) tamponade the wound with a gauze swab; f) tamponade of the wound with muscle tissue; g) ligation of the vessel; h) the imposition of a hemostatic clamp; i) flashing the vessel. Choose the correct combination of answers:**

- 1) a, c, f, g, and.
- 2) b, d, e, h, i.
- 3) a, c, d, f, h.
- 4) a, e, f, g.
- 5) everything is true.

**2. What are the chemicals used to stop bleeding:**

- 1) aminocaproic acid;
- 2) vitamin B;
- 3) dextran [cf. pier weight 30,000-40,000];
- 4) calcium chloride;
- 5) heparin sodium.

Choose the correct combination of answers: A - 1, 2; B - 2, 3; B - 1, 5; G - 1, 4; D 2,

**3. List the symptoms of blood loss with profuse vomiting of "coffee grounds".**

**Pick all the correct answers**

- A. Loss of consciousness due to displacement of the median structures of the brain by intracranial hematoma;
- B. Falling blood pressure;
- B. Tachycardia;
- D. Sharp suppression of cardiac activity during cardiac tamponade;
- D. Decreased hematocrit;
- E. Decrease in the content of hemoglobin in the peripheral blood;
- G. Peritoneal symptoms in hemoperitoneum;
- H. Pallor of the skin;

**four. What bleeding is most often used for vascular ligation? for?**

- A) gastric.
- B) rectal.
- B) inearly toric.
- D) secondary later.
- D) primary.

Choose the correct answer.

**five. Biological ways to stop bleeding are:**

- 1) tamponade of the wound with an omentum;
- 2) muscle tamponade of the wound;
- 3) the introduction of epinephrine;
- 4) intravenous administration of aminocaproic acid;
- 5) intramuscular administration of menadione sodium bisulfite.

Choose the correct combination of answers: A - 1, 2; B - 2, 4, 5; B - 1, 2, 3, 4; G - 3, 4, 5; D - 1, 2, 3.

**6. What should be done on the first day after blood transfusion to a patient? a) supervision of the doctor on duty; b) three times new measurement of body temperature after 1 hour; c) general urine analysis; d) clinical blood test; e) save part of the transfused blood. Choose the correct combination of answers:**

- 1) c, d, d.
- 2) a B C D.
- 3) a, c, d, e.
- 4) a, c, d.
- 5) everything is true.

**7. When mixing human blood with standard isohemagglutinating sera of four blood groups, the agglutination reaction occurred with sera of groups I, II and III. Determine your blood type.**

- A. I group;
- B. II group;
- B. III group;
- D. IV group;
- E. More research should be done;

**eight. Optimum storage temperature for preserved blood:**

- BUT) from 0 to 2 ° C;
- B) from 4 to 6 ° C;
- IN) from 8 to 10 ° C;
- D) -1 ° C;

D) -2 °C.

Choose the correct answer.

**9. Select the definition of agglutinins.**

- A. Antigens in blood serum;
- B. Antigens in red blood cells;
- B. Serum antibodies;
- D. Antibodies in red blood cells;

**10. The main requirement for anti-shock blood substitutes is:**

- 1) rapid removal of fluid from the bloodstream;
- 2) rapid metabolism;
- 3) long-term retention of fluid in the bloodstream;
- 4) rapid increase in BCC;
- 5) change in the chemical composition of the blood.

Choose the correct combination of answers: A - 1, 2, 4; B - 3, 4; B - 3, 4, 5; G - 1, 2; D - 1, 3, 4, 5.

**A TASK**

The ambulance team was called by the police, who found in the apartment a young woman unconscious with transverse cut wounds on the front surfaces of both forearms. On examination: there is no consciousness, pronounced pallor of the skininteguments, the pulse rate is 130 per 1 minute, the pulse is determined only on aa. caroticae, BP 60/20 mm Hg, scarce supply of dark blood from wounds. On the floor next to the victim, a copious accumulation of dark blood.

- one. What is your diagnosis? Indicate the main pathogenetic aspects of this condition.
- 2. The main treatment measures in the prehospital and hospital stages.

**COLLOQUIUM "BLEEDING. TRANSFUSION OF BLOOD, IN BLOOD "**

**OPTION # 7**

**one. List the common symptoms of bleeding: a) drop in blood pressure; b) tachycardia; c) pallor of the skin; d) an increase in hematocrit; e) a decrease in hemoglobin in the peripheral blood; f) loss of consciousness due to displacement of the median structures of the brain by intracranial hematoma; g) peritoneal symptoms in hemoperitoneum; h) profuse vomiting of the color of "coffee grounds" with bleeding from gastroduodenal ulcers; i) severe weakness. Choose the correct combination of answers:**

- 1) a, d, e, f, g.
- 2) b, c, d, h, i.
- 3) c, d, e, h, i.
- 4) a, b, c, e, i.
- 5) d, f, g, h.

**2. What bleeding is most often used for vascular ligation? for?**

- A) gastric.



- B) rectal.
- B) inearly toric.
- D) secondary later.
- D) primary.

Choose the correct answer.

**3. The characteristic signs of what bleeding is melena?**

**Pick all the correct answers**

- A. Pulmonary;
- B. Zheludochny;
- B. Intestinal (upper sections);
- G. Renal;
- D. Intestinal (lower sections);

**four. What localization of the bleeding source is Melena typical for?**

- A) llight.
- B) the upper part of the gastrointestinal tract.
- B) Prye gut.
- D) bud.
- D) spleen.

Choose the correct answer.

**five. What are the chemicals used to stop bleeding:**

1. aminocaproic acid;
2. vitamin B;
3. dextran [cf. pier weight 30,000-40,000];
4. calcium chloride;
5. sodium heparin.

Choose the correct combination of answers: A - 1, 2; B - 2, 3; B - 1, 5; G - 1, 4; D - 2, 5.

**6. A biological test for blood transfusion provides frequency rate and method of introducing 10-15 ml of blood with subsequent clamping of the system: a) once; b) twice; c) three times; d) four times; e) jet. Choose the correct combination of answers:**

- 1) a, b.

- 2) in, d.
- 3) d, d.
- 4) etc.
- 5) a, c.

**7. Which system is characterized by the presence of innate antibodies?**

**Pick all the correct answers**

- A. Group system AB0;
- B. Rhesus system;
- B. Some minor group systems;

**eight. Which of the following pathological conditions make it possible to obtain blood suitable for reinfusion?**

- 1) Ectopic pregnancy.
- 2) Bowel rupture.
- 3) Spleen ruptured.
- 4) Aortic aneurysm rupture.
- 5) Gallbladder rupture.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 3, 5; B - 3, 4, 5; D - 1, 3, 4; D- 1, 5.

**nine. When determining the blood group in the ABO system with standard isohemagglutinating sera, a positive agglutination reaction with standard sera was revealedmi 0 (I) and A (P) groups and negative with B (W). What group does the blood under study belong to?**

- 1) 0 (I).
- 2) A (II).
- 3) B (W).
- 4) AB (IV).
- 5) no conclusion can be drawn.

**10. Signs of over-infusion are: a) tachypnea; b) tachycardia; c) swelling of the cervical veins; d) wet wheezing in the lungs; e) an increase in CVP. Choose the correct combination of answers:**

- 1) a, c.
- 2) c, d, d.
- 3) a B C.
- 4) b, d, d.
- 5) d, d.

**A TASK**

8 hours after the operation of gastric resection, which ended with drainage of the abdominal cavity, the resuscitator on duty noted on the monitor a sudden increase in pulse rate to 120 per minute with a drop in blood pressure to 80/40 mm Hg. Art. When examining the patient, attention was paid to lethargy, weakness, pallor of the skin. Up to 800 ml of scarlet blood was released from the abdominal cavity within 10minutes by drainage.

1. What is your presumptive diagnosis based on the classification you know? Indicate the main pathogenetic aspects of this suffering.
2. Indicatethe sequence of themain treatment measures for thispatient.

## COLLOQUIUM "BLEEDING. TRANSFUSION OF BLOOD, IN BLOOD "

### OPTION # 8

**one. List the local symptoms of bleeding: a) loss of consciousness due to displacement of the median structures of the brain by intracranial hematoma; b) progressive decline in arterial pressure; c) tachycardia; d) a sharp suppression of cardiac activity during tamponade of the heart bag; e) decrease in hematocrit; f) a decrease in hemoglobin in the peripheral blood; g) peritoneal symptoms in hemoperitoneum; h) pallor of the skin; i) profuse vomiting of the color of "coffee grounds" with bleeding from gastroduodenal ulcers. Choose the correct combination of answers:**

- 1) a B C D.
- 2) a, d, and.
- 3) b, d, h, i.
- 4) c, d, f, h.
- 5) b, f, h, i.

**2. Biological ways to stop bleeding are:**

1. tamponade of the wound with an omentum;
2. tamponade of the wound with muscle;
3. the introduction of epinephrine;
4. intravenous administration of aminocaproic acid;
5. intramuscular injection of menadione sodium bisulfite.

Choose the correct combination of answers: A - 1, 2; B - 2, 4, 5; B - 1, 2, 3, 4; G - 3, 4, 5; D - 1, 2, 3.

**3. What is the severity of acute blood loss in the amount of 2500 ml for an adult with body weight 70 Kg?**

- A. Light;
- B. Average;
- B. Heavy;

**four. The cause of late secondary bleeding is:**

- 1) increased blood pressure;
- 2) purulent fusion of a blood clot;
- 3) elimination of vascular spasm;
- 4) erosion of the vessel wall;
- 5) injury to the vessel, slipping of the ligature.

Choose the correct combination of answers: A - 1, 2; B - 2, 3, 4; B - 2, 3, 5; G - 2, 4; D - 1, 2, 4.

**five. What causes early secondary bleeding:**

1. suppuration of the wound;
2. injury to the vessel;
3. ejection of a blood clot;
4. slipping of the ligature;

5. increased blood pressure.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 3, 5; B - 3, 4, 5; G - 2, 4, 5; D - 4, 5.

**6. Reinfusion of blood can be performed: a) in case of rupture of the villagezenki; b) with rupture of the spleen and small intestine; c) with a ruptured colon; d) in case of rupture of the vessels of the mesentery of the intestine; e) with rupture of the small intestine. Choose the correct combination of answers:**

one) in.

- 2) d, d.
- 3) a, d.
- 4) b, d.
- 5) everything is true.

**7. Which of the following is required when conducting a biological sample?**

- A. Rapid injection of 25 ml of blood with a syringe with control of the patient's condition;
- B. Jet injection of 25 ml of blood with monitoring of the patient's condition;
- B. Slow drip introduction of the first portion of blood with control of the patient's condition;
- D. Three-time jet injection of 15 ml of blood with monitoring of the patient's condition;
- E. Monitoring the patient's condition 10-15 minutes after the start of the transfusion;

**eight. Control over the reaction when determining the blood group using tsoliclones is carried out during:**

- BUT) 3-5 s;
- B) 20-30 s;
- IN) 1 min;
- D) 2 minutes;
- D) 2.5 minutes

Choose the correct answer.

**nine. When determining the blood group using tsoliclones, agglutination is observed with anti-B tsoliclones. What group is the blood being analyzed?**

- 1) 0 (I).
- 2) A (P).
- 3) In (III).
- 4) AB (IV).
- 5) no conclusion can be drawn.

**10. Choose drugs to correct water-salt metabolism and acid-base state? a) solution of sodium bicarbonate; b) trisol; c) trisamine; d) acesol; e) Ringer-Locke solution. Choose the correct combination of answers:**

- 1) a B C D E.

- 2) a B C.
- 3) d, d.
- 4) a, b, d.
- 5) a, c, d.

### A TASK

A patient was admitted to the surgical department with complaints of general weakness, frequent loose black stools, and there was an episode of loss of consciousness. On examination, attention is drawn to the pallor of the skin, tachycardia up to 110 beats per minute. The doctor diagnosed gastrointestinal bleeding. In order to replenish blood loss, an emergency blood transfusion is indicated.

What is the required minimum of laboratory tests (samples) that should be performed, without which blood transfusion is unacceptable?

### COLLOQUIUM "BLEEDING. TRANSFUSION OF BLOOD, IN BLOOD "

#### OPTION # 9

**one. With the correct application of the hemostatic tourniquet on the limb: a) venous bleeding continues for some time; b) the limb becomes pale; c) the limb becomes cyanotic; d) the pulse distal to the tourniquet is not detected; e) arterial bleeding stops. Choose the correct combination of answers:**

- 1) a, c.
- 2) g.
- 3) a, b, d, e.
- 4) a, c, d.
- 5) c, d, d.

**2. The pressure bandage is shown as a temporary stop method. bleeding with:**

1. bleeding from the veins of the forearm;
2. damage to the carotid artery;
3. bleeding from the soft tissues of the head;
4. injury to the popliteal fossa area;
5. bleeding from the soft tissues of the chest wall.

Choose the correct combination of answers: A - 2, 3, 5; B - 1, 3, 4; B - all answers are correct; G - 1, 3, 5.

**3. What is the severity of acute blood loss in a volume of 1200 ml for an adult with body weight 70 Kg?**

- A. Light;
- B. Average;
- B. Heavy;
- D. Massive blood loss;

**four. Indicate in which of the following cases air embolism is possible:**

- A) when the veins of the lower extremities are injured;

- B) when the subclavian vein is injured;
- B) with a penetrating knife wound of the knee joint and hemarthrosis;
- D) when the spleen is injured;
- D) in case of injury to a large arterial trunk on the thigh.

Choose the correct answer.

**five. In the first hours with severe bleeding, the amount of blood loss most accurately reflects:**

- A) the relative density of the blood;
- B) the content of hemoglobin;
- C) hematocrit;
- D) the content of erythrocytes;
- E) change in the BCC indicators.

Choose the correct answer.

**6. Sources of blood and its components for transfusion can be: a) donated blood; b) reserved autologous blood; c) blood plasma of animals; d) autologous blood, poured into the pleural cavity; e) autologous blood that has poured into the abdominal cavity when the spleen is damaged. Choose the correct combination of answers:**

- 1) a BC.
- 2) b, d, d.
- 3) a, b, c, e.
- 4) a, b, d, e.
- 5) everything is true.

**7. Which of the following should be reflected in the patient's medical history after blood transfusion?**

Pick all the correct answers

- A. Pulse, pressure and body temperature for 3 hours;
- B. Body temperature in the morning and evening;
- B. Condition of organs and systems 2 times a day;
- D. Observation diaries every 3 hours on the first day after transfusion;
- E. Color of the first portion of urine;

**eight. The clinical manifestations of blood transfusion shock are as follows**

- 1) stomach ache;
- 2) tachycardia;
- 3) bradycardia;
- 4) drop in blood pressure;
- 5) back pain.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 4; B - 3, 4, 5; G - 2, 4, 5; D - 1, 3, 4, 5.

**nine. When determining the blood group using tsoliclones, agglutination is absent with both reagents (anti-A and anti-B). What group is the blood being analyzed?**

- 1) 0 (I).
- 2) A (P).
- 3) B (W).
- 4) AB (IV).
- 5) no conclusion can be drawn.

**10. The main requirement for anti-shock blood substitutes is: a) rapid elimination of fluid and toxins from the bloodstream; b) rapid metabolism; c) long-term retention of fluid in the bloodstream; d) a rapid increase in BCC; e) attraction of fluid from the interstitial space into the vascular bed. Choose a rulecombination of answers:**

one) a, b, d

2) c, d, d.

3) in, g.

four) a, c, d.

five) b, d.

#### **A TASK**

The patient was admitted to the clinic for rectal cancer. Sickexamined, planned abdominal perineal extirpation of the rectum. The upcoming serious operation is associated with significant blood loss.

What method of blood transfusion can you offer this patient for subsequent transfusion?

#### **COLLOQUIUM "BLEEDING. TRANSFUSION OF BLOOD, IN BLOOD "**

##### **OPTION No. 10**

**one. What are the main causes of death from massive bleeding in the first hours after its occurrence?**

- 1) decrease in hemoglobin levels.
- 2) ischemia of the liver.
- 3) acute hemodynamic disturbance.
- 4) breathing disorder.
- 5) renal failure.

Choose the correct combination of answers: A - 1, 2; B - 2, 3; B - 3; G - 1, 2, 3, 4; D - 4, 5.

**2. In relation to the external environment, the following types of bleeding are distinguished:**

**Pick all the correct answers**

A. hidden;

B. outdoor;

B. secondary;

G. explicit;

D. internal;

**3. Select manifestations of gastric bleeding.**

**Pick all the correct answers**

- A. Melena;
- B. Vomiting like "coffee grounds";
- B. Hemoptysis;
- D. Discharge from the mouth of foaming blood;
- D. Disappearance of hepatic dullness;

**four. What are the general clinical signs of bleeding?**

- 1) weakness.
- 2) thirst.
- 3) dizziness.
- 4) heartache.
- 5) cyanosis.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 3, 4; B - 1, 3, 4; D - 1, 4, 5; D - 1, 2, 4.

**five. What methods of temporarily stopping bleeding can be used in case of damage to large arterial vessels?**

- 1) elevated position of the limb.
- 2) imposition of a tourniquet.
- 3) the imposition of a hemostatic clamp in the wound.
- 4) finger pressure of the artery.
- 5) temporary vessel shunting.

Choose the correct combination of answers: A - 1, 2, 3; B - 1, 2, 3, 4; B - 2, 3, 4, 5; G - 2, 3, 4; D - 2, 4, 5.

**6. Before blood transfusion, it is necessary to: a) conduct a test for the compatibility of the donor's serum and the recipient's blood; b) carry out tests for the compatibility of the recipient's serum and the donor's blood; c) conduct a three-time biological test; d) determine the blood group of the recipient; e) determine the blood group of the donor. Choose the correct combination of answers:**

- 1) a, c, d, e.
- 2) a, c.
- 3) a, d, d.
- 4) b, c, d, e.
- 5) b, d, d.

**7. When do clinical manifestations of complications due to transfusion of blood that are incompatible with the Rh factor appear?**

**Pick all the correct answers**

- A. After transfusion of 100 ml of blood;
- B. During the biological test;



- C. 1-2 hours after blood transfusion;
- D. 1 day after blood transfusion;
- D. Up to 12 hours after blood transfusion;

**eight. Sources of blood and its components for transfusion are**

- 1) donated blood;
- 2) autoblood;
- 3) animal blood;
- 4) cadaveric blood;
- 5) placental blood.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 4, 5; B - 2, 3, 5; G - 1, 2, 4, 5; D - all answers are correct.

**nine. When determining the blood group, the isohemagglutination reaction was positive with standard sera 0 (I) and B (III) groups and negative - with A (P). What is the blood group under test?**

- BUT) 0 (I).
- B) BUT(II).
- IN) IN(III).
- D) AB (IV).

Choose the correct answer.

**10. Which of the following pathological conditions should be taken into account when infusion correction of hypovolemia? a) polyuria; b) tachypnea; c) hyperthermia; d) vomiting; e) diarrhea. Youtake the correct combination of answers:**

- 1) a B C D E.
- 2) b, c, d, e.
- 3) a, b, c, e.
- 4) a, c.
- 5) a B C D.

**A TASK**

Patient K., 27 years old, was admitted with a blunt trauma to the abdomen 2 hours after the injury. The condition is extremely serious. Pulse threadlike 120 in 1 minute. BP 80/40 mm Hg An emergency laparotomy was performed. Liquid blood with a volume of about 2 l.. The blood was collected in a sterile container, filtered through 8 layers of gauze, and sodium heparin was added for stabilization. The source of bleeding was determined - a ruptured spleen. Splenectomy was performed. After the final hemostasis and revision of the abdominal cavity, no damage to the hollow organs was found.

Which of the methods of blood transfusion is the most optimal for the patient's tribute and why? What are the contraindications to this method of blood transfusion?

**COLLOQUIUM "BLEEDING. TRANSFUSION OF BLOOD, IN BLOOD "**

**OPTION No. 11**

**one. What are the ways to physically stop bleeding:**

- 1) application of cold;
- 2) packing the wound;
- 3) hemostatic sponge;
- 4) electrocoagulation;
- 5) vascular suture.

Choose the correct combination of answers: A - 1, 2; B - 2, 3; B - 3, 4, 5; G - 1, 4; D - 3, 4.

**2. Due to what is the natural compensation for the decrease in BCC in acute blood loss and the viability of the organism is maintained?**

1. vasoconstriction.
2. increase in CVP.
3. autohemodilution.
4. vasodilation.
5. centralization of blood flow.

Choose the correct combination of answers: A - 1, 4, 5; B - 1, 3, 5; B - 1, 2, 4; G - 2, 4, 5; D - 2, 3, 4.

**3. With the development of haemoperitoneum, the following symptoms occur: Pick all the correct answers**

- A. Kloyber's bowls on the roentgenogram;
- B. irritation of the peritoneum;
- B. dullness in sloping places;
- D. increased peristalsis;

**four. What drugs are used to stop bleeding locally?**

1. hemostatic sponge.
2. gelatinous sponge.
3. thrombin.
4. fibrin film.
5. cryoprecipitate.

Choose the correct combination of answers: A - 1, 3; B - 2, 3, 4; B - 2, 3, 4, 5; G - 1, 4, 5; D - 1, 2, 3, 4.

**five. What are the main causes of death from massive bleeding in the first hours after its occurrence?**

1. a decrease in the level of hemoglobin.
2. ischemia of the liver.
3. acute hemodynamic disturbance.

4. breathing disorder.

5. renal failure.

Choose the correct combination of answers: A - 1, 2; B - 2, 3; B - 3; G - 1, 2, 3, 4; D - 4, 5.

**6. What blood elements contain agglutinins?**

A) blood serum.

B) leukocytes.

C) erythrocytes.

D) platelets.

E) monocytes.

Choose the correct answer.

**7. What is needed to prevent citrate intoxication (shock)?**

**Pick all the correct answers**

A. For massive blood transfusions, use other stabilizers;

B. For every 500 ml of blood, inject 10 ml of 10% calcium chloride;

B. Do not transfuse blood with a long prescription;

D. Slow drip of blood;

**eight. Indications for intra-arterial blood transfusion are:**

- 1) severe shock;
- 2) preagonal state as a result of acute blood loss;
- 3) clinical death;
- 4) preoperative preparation;
- 5) surgery.

Choose the correct combination of answers: A - 1, 2, 3, 4; B - 1, 3, 4; B - 1, 2, 4; G - 1, 2, 3; D - all answers are correct.

**nine. When determining the blood group, the isohemagglutination reaction was positive with standard sera 0 (I) and A (II) groups Indicate to which group the blood under study belongs:**

BUT) 0 (I);

B) BUT(II);

IN) IN(III);

D) AB (IV).

Choose the correct answer.

**10. Select drugs for parenteral nutrition: a) polyamine; b) polydesis; c) gelatinol; d) intralipid; e) 10% glucose solution. Choose the correct combination of answers:**

- 1) a B C.
- 2) a, d, d.
- 3) etc.
- 4) a, c, d.
- 5) b, d.

#### **A TASK**

A patient with a clinical picture of hemorrhagic shock was admitted to the intensive care unit. Examination revealed that the source of bleeding was a stomach ulcer. The bleeding was stopped by endoscopic means. The volume of blood loss 35% BCC. In a short period of time, the patient received about 1 l erythrocyte mass, compatible by group and Rh factor and after biological tests. After that, the patient developed tremors, convulsions, increased heart rate, arrhythmia, decreased blood pressure.

What complication did the patient have? What should be done to prevent this?

#### **COLLOQUIUM "BLEEDING. TRANSFUSION OF BLOOD, IN BLOOD "**

##### **OPTION No. 12**

**one. What are the general clinical signs of bleeding?**

1. weakness.
2. thirst.
3. dizziness.
4. pain in the heart.
5. cyanosis.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 3, 4; B - 1, 3, 4; D - 1, 4, 5; D - 1, 2, 4.

**2. Which of the listed types of bleeding are internal?**

**Pick all the correct answers**

- A. Bleeding from ulcers of the gastrointestinal tract;
- B. Bleeding into the abdominal cavity with ruptured spleen;
- B. Renal bleeding;
- D. Hematomas of soft tissues;
- D. Hemarthrosis;
- E. Uterine bleeding;

**3. Select the possible causes of late secondary bleeding.**

- A. Slip of the ligature;

- B. Washing out a blood clot;
- B. Early activation of the patient;
- D. Development of infection in the wound;

**4. Who first suggested using vessel ligation as a method of stopping bleeding?**

- A. N.I. Pirogov;
- B. K. Galen;
- V. Hippocrates;
- G. Avicenna;
- D. K. Cels;

**5. Select the main common symptoms of profuse bleeding.**

**Pick all the correct answers**

- A. Decrease in blood pressure;
- B. Bradycardia;
- B. Arrhythmia;
- D. Pallor of the skin;
- D. Tachycardia;
- E. Moisture of the skin;

**6. What blood elements are agglutinogens in?**

- A) in blood plasma.
- B) in blood serum.
- B) in leukocytes.
- D) in erythrocytes.
- D) in platelets.

Choose the correct answer.

**7. Which of the following drugs are currently used for blood transfusion?**

Pick all the correct answers

- A. Donor blood;
- B. Cadaveric blood;
- B. Placental blood;

D. The patient's blood;

D. Waste blood;

**eight. Contraindications for blood reinfusion are:**

- 1) hemothorax with damage to large bronchi;
- 2) hemoperitoneum with damage to the stomach and intestines;
- 3) hemoperitoneum in malignant neoplasms;
- 4) blood that has been in the abdominal cavity for more than 24 hours;
- 5) disturbed ectopic pregnancy.

Choose the correct combination of answers: A - 1, 2, 3, 4; B - 2, 3, 4, 5; B - 2, 4, 5; G - 1, 2, 5; D - 1, 2, 4, 5.

**nine. When determining the blood group, a positive isohemagglutination reaction with standard sera A (II) and B (III) groups and negative - with sera of 0 (I) and AB (IV) groups. What does this result indicate?**

BUT) about group 0 (I) test blood.

B) about group A (II).

IN) about group B (III).

D) about the group AB (IV).

D) about the unsuitability of standard sera.

Choose the correct answer.

**10. Which of the following drugs is appropriate for a patient in a state of traumatic shock? a) gelatinol; b) rheopolyglucin; c) polyglucin; d) disol; e) to the Volek. Choose the correct combination of answers:**

- 1) a, b, d, e.
- 2) a, b, c, e.
- 3) in, g.
- 4) etc.
- 5) a, b, e.

**A TASK**

Before carrying out blood transfusion, the doctor determined the blood group of the recipient and the donor, the group and Rh compatibility of the blood, however, during the transfusion, the patient developed chest pain, chills, pain in the lumbar region, shortness of breath, difficulty breathing, decreased blood pressure, facial flushing.

What's wrong with the patient? Your actions? How is the biological test carried out?

**COLLOQUIUM "BLEEDING. TRANSFUSION OF BLOOD, IN BLOOD "**

**OPTION No. 13**

**one. What methods of temporarily stopping bleeding can be used in case of damage to large arterial vessels?**

1. elevated position of the limb.
2. the imposition of a tourniquet.
3. the imposition of a hemostatic clamp in the wound.
4. finger pressure of the artery.
5. temporary bypass of the vessel.

Choose the correct combination of answers: A - 1, 2, 3; B - 1, 2, 3, 4; B - 2, 3, 4, 5; G - 2, 3, 4; D - 2, 4, 5.

**2. The cause (s) of early secondary bleeding may be:**

**Pick all the correct answers**

- A. damage to the vessel wall;
- B. slipping of the ligature;
- B. increase in blood pressure;
- D. ejection of a blood clot;
- D. suppuration of the wound;

**3. Which of the following is referred to as local biological methods for stopping bleeding?**

**Pick all the correct answers**

- A. Hemostatic sponge;
- B. Thrombin;
- B. Cryoprecipitate;
- G. Tamponade with a strand of omentum;

**4. Specify the methods of physical stopping of bleeding:**

1. application of cold;
2. packing the wound;
3. hemostatic sponge;
4. electrocoagulation;
5. vascular suture.

Choose the correct combination of answers: A - 1, 2; B - 2, 3; B - 3, 4, 5; G - 1, 4; D - 3, 4.

**5. Select manifestations of gastric bleeding.**

**Pick all the correct answers**

- A. Melena;

- B. Vomiting like "coffee grounds";
- B. Hemoptysis;
- D. Discharge from the mouth of foaming blood;
- D. Disappearance of hepatic dullness;

**6. When determining the blood group, the isohemagglutination reaction was positive with standard sera 0 (I) and B (III) groups and negative - with A (P). What is the blood group under test?**

BUT) 0 (I).

B) BUT(II).

IN) IN(III).

D) AB (IV).

Choose the correct answer.

**7. Select absolute indications for blood transfusion.**

**Pick all the correct answers**

- A. Shock of any genesis;
- B. Traumatic shock;
- B. Hemotransfusion shock;
- D. Intoxication;
- D. Acute anemia;
- E. Large volume surgery with massive blood loss;

**eight. Complications caused by transfusion of incompatible Blood Rh factor can occur under the following conditions:**

- 1) with repeated administration of Rh-negative recipients of Rh-positive blood;
- 2) during pregnancy of a Rh-negative woman with an Rh-positive fetus;
- 3) with repeated transfusion of Rh-positive recipients of Rh-negative blood;
- 4) during pregnancy of a Rh-positive woman with a Rh-negative fetus;
- 5) when transfusing Rh-negative recipients of blood plasma of Rh-positive donors.

Choose the correct combination of answers: A - 1, 3, 4, 5; B - 1, 2; B - 2, 3, 5; G - 2, 4, 5; D - 2, 3, 4, 5.

**nine. Contraindications for blood reinfusion are:**

- 1) hemothorax with damage to large bronchi;
- 2) hemoperitoneum with damage to the stomach and intestines;
- 3) hemoperitoneum in malignant neoplasms;
- 4) blood that has been in the abdominal cavity for more than 24 hours;
- 5) disturbed ectopic pregnancy.

Choose the correct combination of answers: A - 1, 2, 3, 4; B - 2, 3, 4, 5; B - 2, 4, 5; G - 1, 2, 5; D - 1, 2, 4, 5.



**10. What drugs should be given to a patient with severe a form of endogenous intoxication? a) polyglucin; b) polydesis; c) Volek; d) acesol; e) hemodesis. Choose the correct combination of answers:**

- 1) in, g.
- 2) a, b.
- 3) d.
- 4) a, d.
- 5) b, d.

#### **A TASK**

Patient L., 30 years old, was delivered with a knife penetrating wound of the abdominal cavity. The patient's condition is very serious. The skin is pale, cold, covered with cold, sticky sweat. Pulse of weak filling, 130 beats per minute. BP 80/40 mm Hg. Art. The patient was diagnosed with a penetrating wound of the abdominal cavity, intra-abdominal bleeding. An emergency laparotomy was performed. In the abdominal cavity about 2 liters blood. The blood was collected in a sterile container, filtered through 8 layers of gauze, and heparin was added for stabilization. The source of bleeding was determined - liver injury. During the revision of the abdominal organs, a wound was found in the wall of the duodenum.

Is blood reinfusion possible? To explain the answer.

#### **COLLOQUIUM "BLEEDING. TRANSFUSION OF BLOOD, IN BLOOD "**

##### **OPTION No. 14**

**one. What drugs are used to stop bleeding locally?**

1. hemostatic sponge.
2. gelatinous sponge.
3. thrombin.
4. fibrin film.
5. cryoprecipitate.

Choose the correct combination of answers: A - 1, 3; B - 2, 3, 4; B - 2, 3, 4, 5; G - 1, 4, 5; D - 1, 2, 3, 4.

**2. Due to what is the compensation for the decrease in the BCC in acute blood loss?**

**Pick all the correct answers**

- A. Vasodilation;
- B. Arteriolo-spasm;
- B. Oliguria;
- G. Venospasm;
- D. Autohemodilution;
- E. Tachycardia;

**3. Which of the following should be considered the method of choice when stopping bleeding from a varicose node on the lower leg?**

- A. Imposition of an arterial tourniquet;
- B. Applying a venous tourniquet;
- B. Finger pressure;
- D. Elevated position of the limb and pressure bandage;
- D. Tamponade of the wound;
- E. Clamping;
- G. Temporary bypass surgery;

**4. With the development of haemoperitoneum, the following symptoms occur:**

**Pick all the correct answers**

- A. Kloyber's bowls on the roentgenogram;
- B. irritation of the peritoneum;
- B. dullness in sloping places;
- D. increased peristalsis;

**five. With the correct application of the hemostatic tourniquet on the limb: a) venous bleeding continues for some time; b) the limb becomes pale; c) the limb becomes cyanotic; d) the pulse distal to the tourniquet is not detected; e) arterial bleeding stops. Choose the correct combination of answers:**

- 1. a, c.
- 2. g...
- 3. a, b, d, e.
- 4. a, c, d.
- 5. c, d, d.

**6. When determining the blood group, the isohemagglutination reaction was positive with standard sera 0 (I) and A (II) groups Indicate to which group the blood under study belongs:**

- BUT) 0 (I);
- B) BUT(II);
- IN) IN(III);
- D) AB (IV).

Choose the correct answer.

**7. Select the definition of pseudoagglutination.**

- A. Bonding of erythrocytes in the form of coin columns;
- B. Agglutination reaction with sera of all groups, occurring at room temperature;
- B. Agglutination reaction with sera of all groups, occurring at a low temperature;

**8. Which of the following is used as a blood stabilizer?**

**Pick all the correct answers**

- A. Sodium citrate;
- B. Heparin sodium;
- B. Degmicide;

**nine. The clinical manifestations of blood transfusion shock are as follows**

- 1. abdominal pain;
- 2. tachycardia;
- 3. bradycardia;
- 4. drop in blood pressure;
- 5. back pain.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 4; B - 3, 4, 5; G - 2, 4, 5; D - 1, 3, 4, 5.

**10. The main properties of detoxification blood substitutes are:**

- 1. dilution of blood;
- 2. change in the physicochemical properties of blood;
- 3. high absorption properties;
- 4. enhancing renal filtration;
- 5. enhancing the detoxification function of the liver.

Choose the correct combination of answers: A - 1, 3, 4; B - 2, 3, 4; B - 3, 4; G - 3, 4, 5; D - 3, 5.

**A TASK**

Patient N., 28 years old, was admitted to the surgical department for acute appendicitis, an appendectomy was performed: the gangrenous appendix was removed. The operation was carried out with technical difficulties due to the retrocecal location of the process and the presence of a moderate infiltration, therefore, a drainage tube was brought into the right lateral canal to the operation site. She was observed in the intensive care unit. An hour later, the surgeon on duty drew attention to the pallor of the skin, tachycardia (pulse rate 110 per minute, BP 110/60 mm Hg). The container was found to contain up to 300.0 ml of blood drawn through the drain. The patient started drip infusion of epsilon-aminocaproic acid, dicinone, vicasol was introduced. After 20 minutes, the patient's condition did not improve, the tachycardia reached 120 beats per minute.

What complication did the patient develop in the early postoperative period? What are your tactics?

## COLLOQUIUM "NARCOSIS"

### OPTION # 1

**1. The purpose of premedication is: a) prevention of the vagal effect; b) increased tone of the sympathetic nervous system; c) muscle relaxation; d) suppression of salivation; e) relieving emotional stress. Choose the correct combination of answers:**

1. a, d.

2. g, d.

3. in, g.

4. a, b, d, e.

5. b, c, d, e.

**2. Select the sign of the end of the first stage and the onset of the second stage of ether anesthesia according to Gwedel.**

Pick all the correct answers

A. Loss of all types of sensitivity .;

B. Lack of reaction of the pupil to light;

B. Absence of corneal and corneal reflexes .;

D. Moderate decrease in muscle tone .;

D. Loss of consciousness .;

E. Speech and motor excitement;

**3. What are the possible complications after endotracheal anesthesia:**

1. recurarization;

2. vomiting;

3. edema of the vocal cords and subglottic space;

4. mechanical asphyxia (retraction of the tongue);

5. chills.

Choose the correct combination of answers: A - 1, 2; B - 3, 4; B - 2, 3, 4; G - 1, 2, 3; D - all answers are correct.

**4. Select the signs of an overdose of ether anesthesia (the fourth level of the surgical stage).**

Pick all the correct answers

A. Dilation of the pupil;

B. Threaded pulse;

B. Decrease in blood pressure;

D. Clonic convulsions .;

D. Absence of any reflexes .;

**5. What level of depth of general anesthesia (stage of anesthesia) is required for performing abdominal surgical interventions?**

A. I – II .;

B. III (2) –III (3) .;

B. II – III (1) .;

G. III (1) –III (2) .;

D. III (2) -IV .;

E. II – IV .;

**6. What complications can occur during local anesthesia with novocaine? a) an allergic reaction; b)acute liver failure; c) accidental intravascular administration of the drug; d) collapse; e) respiratory arrest. Choose the correct combination of answers:**

1. a, b, c.

2. d.

3. a, d, e.

4. c, d, d.

5. everything is true.

**7. What concentration of procaine is used for infiltration anesthesia?**

A. 0.25-0.5%;

B. 0.5-1.0% .;

B. 1.0-2.0% .;

G. 2.0–5.0% .;

D. 10%;

**eight. The purpose of premedication is:**

1. prevention of vagal effect;

2. increasing the tone of the sympathetic nervous system;

3. suppression of salivation;

4. removal of emotional stress;

5. prevention of vomiting and regurgitation.

Choose the correct combination of answers: A - 1, 5; B - 1, 4, 5; B - 3, 4; G - 1, 2, 3, 4; D - 1, 2, 3, 4, 5.

**9. Specify the most rational types of anesthesia for the reduction of hip and shoulder dislocations:**

1. endotracheal anesthesia with halothane;
2. mask anesthesia with halothane-oxygen mixture;
3. NLA;
4. intravenous anesthesia with barbiturates;
5. epidural anesthesia.

Choose the correct combination of answers: A - 1, 2, 4, 5; B - 1, 2; B - 3; D - 2, 4; D - 3, 5.

**10. What drugs are classified as components of ataralgia?**

- A. Diazepam and ketamine .;
- B. Fentanyl and droperidol .;
- B. Diazepam and fentanyl;
- G. Thiopental sodium and fentanyl;
- D. Trimeperidine and sodium oxybate .;
- E. Sodium oxybate and sodium thiopental;

**A TASK**

A 50-year-old patient is operated on for a hernia of the white line of the abdomen. Mask anesthesia with halothane-oxygen mixture. BP - 130/60 mm Hg, heart rate - 78 per minute, respiratory rate - 18 per minute. Pupils - up to 2 mm, the reaction to light is sluggish, the corneal reflex is reduced. Determine the stage of anesthesia.

- A) I.
- B) II.
- B) III1-2.
- D) Sh3.

Choose the correct answer.

**COLLOQUIUM "NARCOSIS"**

**OPTION # 2**

**1. What anesthesia is the least toxic for a patient during 2-3-hour surgery on the abdominal organs?**

- A) An ether-oxygen mixture (mask).
- B) Halothane-oxygen mixture (mask).
- B) Endotracheal anesthesia with halothane-oxygen mixture.

D) NLA.

D) Fractional intravenous anesthesia with ketamine.

Choose the correct answer.

**2. How can the patient be transported after premedication?**

**Pick all the correct answers**

A. On a gurney;

B. On foot, accompanied by medical personnel;

B. On foot, with normal health;

G. In the chair .;

D. After 2-12 hours;

**3. Specify the most rational types of anesthesia for the reduction of hip and shoulder dislocations:**

1. endotracheal anesthesia with halothane;

2. mask anesthesia with halothane-oxygen mixture;

3. NLA;

4. intravenous anesthesia with barbiturates;

5. epidural anesthesia.

Choose the correct combination of answers: A - 1, 2, 4, 5; B - 1, 2; B - 3; D - 2, 4; D - 3, 5.

**4. What is meant by the term “anesthetic corridor” of the anesthetic?**

A. Dose of anesthetic, ensuring the achievement of the surgical stage of anesthesia;

B. The range of concentration of anesthetic from the dose required to achieve minimal analgesia to the dose that causes the surgical stage;

B. The range of concentrations of anesthetic, starting from the dose required to reach III (1) –III (2) stage of anesthesia, and ending with a toxic dose;

D. The range of concentrations of anesthetic, ranging from a dose leading to loss of consciousness to a dose that causes disturbance of central hemodynamics .;

**5. Which of the breathing circuits is the safest for the patient?**

A. Semi-open .;

B. Semi-closed .;

B. Open .;

G. Closed .;

**6. Ether anesthetics include: a) lidocaine; b) dicain; c) cocaine; d) trimecaine; e) novocaine. Choose the right onea combination of answers:**

1. a, d.
2. a, b, d.
3. g, d.
4. c, d, d.
5. b, c, d.

**7. What drugs are used for spinal anesthesia?**

**Pick all the correct answers**

- A. Procaïn;
- B. Lidocaine;
- B. Bupivacaine;
- G. Trimekain;

**eight. What types of anesthesia are preferable for surgery for panationality?**

1. intravenous anesthesia (barbiturates).
2. conduction anesthesia (according to Lukasevich-Oberst).
3. anesthesia with trichlorethylene.
4. infiltration anesthesia.
5. plexus anesthesia.

Choose the correct combination of answers: A - 1, 2; B - 3, 4; B - 3, 5; D - 3, 4; D - 1, 2, 3, 4, 5.

**9. What concentration of procaine is used for infiltration anesthesia?**

- A. 0.25-0.5%;
- B. 0.5-1.0% .;
- B. 1.0-2.0%.;
- G. 2.0–5.0% .;
- D. 10%;

**10. Intravenous anesthesia with ketamine is contraindicated in:**

1. primary surgical treatment of wounds;



2. hepatic renal failure;
3. epilepsy;
4. arterial hypotension, large blood loss;
5. arterial hypertension.

Choose the correct combination of answers: A - 1, 2; B - 2, 3; B - 3, 5; G - 2, 5; D - all answers are correct.

### A TASK

In a weakened 70-year-old patient after cholecystectomy performed under endotracheal anesthesia using non-depolarizing relaxants, lung hypoventilation, cyanosis, and muscle relaxation are noted.

What is the reason for this condition, what should be the actions of the doctor? With the help of which of the following drugs are these phenomena eliminated: strophanthin, diazepam, trimeperidine, neostigmine methyl sulfate, fentanyl?

### COLLOQUIUM "NARCOSIS"

#### OPTION # 3

#### 1. What is the purpose of the anesthesiologist using muscle relaxants?

1. to enhance (potentiate) the action of drugs.
2. to immobilize the patient.
3. to block vegetative reactions.
4. to stabilize hemodynamics.
5. for tracheal intubation.

Choose the correct combination of answers: A - all answers are correct; B - 1, 3, 4; B - 2, 4, 5; G - 1, 2, 3; D - 2, 5.

#### 2. What is included in the premedication before an emergency operation?

- A. Sedatives and hypnotics together with narcotic analgesics 1.5-2 hours before surgery;
- B. Narcotic analgesics and antispasmodics 30-40 minutes before surgery;
- C. Narcotic analgesics and atropine 30-40 minutes before surgery;
- D. Narcotic analgesics and atropine 1.5-2 hours before surgery;
- E. All of the above is incorrect .;

#### 3. What prophylaxis of tongue sinking (mechanical asphyxia) is necessary for a patient in the early post-anesthesia period?

1. at the end of the operation, intravenously inject neostigmine methyl sulfate (a muscle relaxant antagonist).
2. put the air duct.

3. provide constant monitoring of medical personnel and monitoring for 2 hours after anesthesia.
4. to introduce the patient with respiratory analeptics.
5. insert the tube into the stomach.

Choose the correct combination of answers: A - 1, 2; B - 2, 4; B - 1, 3, 4; G - 4, 5; D - 2, 3.

**4. Select the sign of the end of the first stage and the onset of the second stage of ether anesthesia according to Gwedel.**

**Pick all the correct answers**

- A. Loss of all types of sensitivity .;
- B. Lack of reaction of the pupil to light;
- B. Absence of corneal and corneal reflexes .;
- D. Moderate decrease in muscle tone .;
- D. Loss of consciousness .;
- E. Speech and motor excitement;

**5. What are the advantages of administering anesthesia in a semi-open circuit?**

**Pick all the correct answers**

- A. Profitability .;
- B. Possibility of more accurate dosing of the anesthetic mixture;
- B. Significant reduction in the pollution of the operating room atmosphere;
- D. Greater safety for the patient .;

**6. Amide anesthetics are characterized by: a) rapid hydrolytic destruction in tissues; b) the duration of effective regional anesthesia with a single injection into the tissue; c) the admissibility of repeated administration of significant doses of the drug to prolong anesthesia; d) practically do not cause allergic reactions in the maximum allowable doses; e) are excreted from the body unchanged or are partially destroyed in the liver. Choose the correct combination of answers:**

1. a, c, d.
2. a, d, e.
3. a, b, c.
4. b, d, e.
5. c, d, d.

**7. What concentration of procaine is used for conduction of local anesthesia?**

- A. 0.25-0.5%;

- B. 0.5-1.0% .;
- B. 1.0-2.0%.;
- G. 2.0–5.0% .;
- D. 10% .;

**8. What is the mechanism of action of local anesthetics?**

- A. The synthesis of a neurotransmitter is impaired, as a result of which the transmission of impulses along the nerve fiber is blocked .;
- B. The neurotransmitter is inactivated, as a result of which the transmission of impulses along the nerve fiber is blocked .;
- B. Sodium channels are blocked and depolarization processes are disturbed .;
- D. Anesthetic molecules increase the transmembrane potential .;

**9. Select indications for perinephral blockade.**

**Pick all the correct answers**

- A. Renal colic;
- B. Intestinal paresis;
- B. Acute pancreatitis;
- D. Acute myocardial infarction .;
- D. Acute cholecystitis;
- E. Fracture of the pelvis;

**10. What complications are possible with spinal anesthesia? a) respiratory arrest; b) the occurrence of headache, paresis, paralysis; c) meningitis; d) drop in blood pressure; e) damage to the spinal cord. Choose the correct combination of answers:**

- 1. b, c, d, e.
- 2. a, c.
- 3. a, c, d.
- 4. a, b, c, d.
- 5. everything is true.

**A TASK**

A 50-year-old patient D. was diagnosed with cardiac arrest.

What actions, in your opinion, should start resuscitation measures and what is the sequence of the doctor's actions: a) giving the patient a Trendelenburg position; b) conducting a closed heart massage; c) conducting

mouth-to-mouth breathing; d) mechanical defibrillation; e) ensuring airway patency; f) the ratio of the number of breaths and chest compression.

## COLLOQUIUM "NARCOSIS"

### OPTION # 4

**1. A 50-year-old patient is operated on for a hernia of the white line of the abdomen. Mask anesthesia with halothane-oxygen mixture. BP - 130/60 mm Hg, heart rate - 78 per minute, respiratory rate - 18 per minute. Pupils - up to 2 mm, the reaction to light is sluggish, the corneal reflex is reduced. Determine the stage of anesthesia.**

- A) I.
- B) II.
- B) III1-2.
- D) Sh3.

Choose the correct answer.

**2. Select the signs of an overdose of ether anesthesia (the fourth level of the surgical stage).**

**Pick all the correct answers**

- A. Dilation of the pupil;
- B. Threaded pulse;
- B. Decrease in blood pressure;
- D. Clonic convulsions .;
- D. Absence of any reflexes .;

**3. Select the main mechanism of impairment of neuromuscular transmission by "short-acting" muscle relaxants.**

- A. Depolarization of the postsynaptic membrane and retardation of repolarization;
- B. Blocking cholinergic receptors without depolarizing the postsynaptic membrane;
- B. Violation of the release of acetylcholine;
- D. Inhibition of acetylcholinesterase .;

**4. What are the advantages of administering anesthesia in a semi-closed circuit?**

**Pick all the correct answers**

- A. Profitability .;
- B. Possibility of more accurate dosing of the anesthetic mixture;

B. Significant reduction in the pollution of the operating room atmosphere;

D. Greater safety for the patient .;

**5. Select gaseous narcotic anesthetics.**

**Pick all the correct answers**

A. Diethyl ether;

B. Methoxyflurane;

B. Nitrous oxide;

G. Enfluran .;

D. Cyclopropane;

**6. What drugs are used for induction of anesthesia?**

**Pick all the correct answers**

A. Fentanyl;

B. Thiopental sodium;

B. Droperidol;

G. Deprivan;

D. Suxamethonium iodide;

E. Diazepam .;

**7. What concentration of procaine is used for novocaine blockades?**

A. 0.25-0.5%;

B. 0.5-1.0% .;

B. 1.0-2.0% .;

G. 2.0–5.0% .;

D. 10% .;

**eight. Ether anesthetics include: a) lidocaine; b) dicain; c) cocaine; d) trimecaine; e) novocaine. Choose the right onea combination of answers:**

1. a, d.

2. a, b, d.

3. g, d.

4. c, d, d.

5. b, c, d.

**9. What drugs are used for spinal anesthesia?**

**Pick all the correct answers**

- A. Procain;
- B. Lidocaine;
- B. Bupivacaine;
- G. Trimekain;

**10. Which of the following types of local anesthesia relate to local anesthesia? a) case anesthesia; b) anesthesia according to Oberst-Lukashevich; c) perirenal blockade; d) blockade of nerve plexuses and trunks; e) epidural anesthesia. Choose the correct combination of answers:**

- 1. b, d, e.
- 2. a, b, c.
- 3. b, d.
- 4. c, d, d.
- 5 B.

**A TASK**

A patient who has been suffering from bronchial asthma for 10 years is to undergo an operation - gastric resection. Which of the following drugs should be included in the preoperative preparation plan: antihistamines, fentanyl, glucocorticoids, proserin, aminophylline?

**COLLOQUIUM "NARCOSIS"**

**OPTION # 5**

**1. What are the possible complications after endotracheal anesthesia:**

- 1. recurarization;
- 2. vomiting;
- 3. edema of the vocal cords and subglottic space;
- 4. mechanical asphyxia (retraction of the tongue);
- 5. chills.

Choose the correct combination of answers: A - 1, 2; B - 3, 4; B - 2, 3, 4; G - 1, 2, 3; D - all answers are correct.

**2. What level of depth of general anesthesia (stage of anesthesia) is required for performing abdominal surgical interventions?**

- A. I – II .;
- B. III (2) – III (3) .;
- B. II – III (1) .;
- G. III (1) – III (2) .;
- D. III (2) -IV .;
- E. II – IV .;

**3. Select the main mechanism of impairment of neuromuscular transmission by "long-acting" muscle relaxants.**

- A. Depolarization of the postsynaptic membrane and retardation of repolarization;
- B. Blocking cholinergic receptors without depolarizing the postsynaptic membrane;
- B. Violation of the release of acetylcholine;
- D. Inhibition of acetylcholinesterase .;

**4. Select vapor-generating liquid anesthetics.**

**Pick all the correct answers**

- A. Nitrous oxide .;
- B. Diethyl ether;
- B. Methoxyflurane;
- G. Trichlorethylene;

**5. What are the positive properties of nitrous oxide?**

**Pick all the correct answers**

- A. Bronchodilating effect;
- B. Rapid onset of general anesthesia and rapid recovery of consciousness .;
- B. Lack of toxic effects on parenchymal organs;
- D. Expressed analgesic effect;
- E. Absence of irritation of mucous membranes and hypersecretion .;

**6. What drugs are classified as components of neuroleptanalgesia?**

- A. Diazepam and ketamine .;
- B. Fentanyl and droperidol .;
- B. Diazepam and fentanyl;

- G. Thiopental sodium and fentanyl;
- D. Trimeperidine and sodium oxybate .;
- E. Sodium oxybate and sodium thiopental;

**7. What amount of dry matter of local anesthetic is the maximum allowable for local anesthesia (procaine, lidocaine, trimecaine)?**

- A. 200-400 mg;
- B. 500 mg;
- B. 600-800 mg.;
- G. 1.0 g.;
- D. 2.0 g.;

**eight. Amide anesthetics are characterized by: a) rapid hydrolytic destruction in tissues; b) the duration of effective regional anesthesia with a single injection into the tissue; c) the admissibility of repeated administration of significant doses of the drug to prolong anesthesia; d) practically do not cause allergic reactions in the maximum allowable doses; e) are excreted from the body unchanged or are partially destroyed in the liver. Choose the correct combination of answers:**

- 1. a, c, d.
- 2. a, d, e.
- 3. a, b, c.
- 4. b, d, e.
- 5. c, d, d.

**nine. What are the rational types of anesthesia for mastitis surgery?:**

- 1. local infiltration anesthesia;
- 2. endotracheal anesthesia;
- 3. mask anesthesia (halothane);
- 4. intravenous anesthesia;
- 5. conduction anesthesia (retromammary blockade).

Choose the correct combination of answers: A - 1, 4; B - 4, 5; B - 2, 3; G - 3, 4; D - 3, 4, 5.

**10. What are the negative effects of ketamine?**

**Pick all the correct answers**

- A. Hallucinogenicity .;
- B. Possible development of psychotic reactions in the long-term postoperative period;



- B. Increase in heart rate;
- D. Increased cardiac output;
- E. Prolonged awakening with possible development of motor and speech excitement .;

### A TASK

One of the types of combined anesthesia is neuroleptanalgesia - NLA. Choose the right combination of drugs for NLA: a) seduxen + fentanyl; b) fentanyl + droperidol; c) droperidol + ketamine; 4) fentanyl + nitrous oxide; 5) seduxen + hexenal.

### COLLOQUIUM "NARCOSIS"

#### OPTION # 6

#### 1. Intravenous anesthesia with ketamine is contraindicated in:

1. primary surgical treatment of wounds;
2. hepatic renal failure;
3. epilepsy;
4. arterial hypotension, large blood loss;
5. arterial hypertension.

Choose the correct combination of answers: A - 1, 2; B - 2, 3; B - 3, 5; G - 2, 5; D - all answers are correct.

#### 2. What is meant by the term “anesthetic corridor” of the anesthetic?

- A. Dose of anesthetic, ensuring the achievement of the surgical stage of anesthesia;
- B. The range of concentration of anesthetic from the dose required to achieve minimal analgesia to the dose that causes the surgical stage;
- B. The range of concentrations of anesthetic, starting from the dose required to reach III (1) –III (2) stage of anesthesia, and ending with a toxic dose;
- D. The range of concentrations of anesthetic, ranging from a dose leading to loss of consciousness to a dose that causes disturbance of central hemodynamics .;

#### 3. What is required for tracheal intubation?

**Pick all the correct answers**

- A. Sterile wipes .;
- B. Intubation tubes;
- B. Stomach tube;
- G. Laryngoscope;
- D. Bronchoscope .;

**4. What drugs are used for induction of anesthesia?**

**Pick all the correct answers**

- A. Fentanyl;
- B. Thiopental sodium;
- B. Droperidol;
- G. Deprivan;
- D. Suxamethonium iodide;
- E. Diazepam .;

**5. Select the main mechanism of impairment of neuromuscular transmission by "short-acting" muscle relaxants.**

- A. Depolarization of the postsynaptic membrane and retardation of repolarization;
- B. Blocking cholinergic receptors without depolarizing the postsynaptic membrane;
- B. Violation of the release of acetylcholine;
- D. Inhibition of acetylcholinesterase .;

**6. What drugs are classified as components of ataralgia?**

- A. Diazepam and ketamine .;
- B. Fentanyl and droperidol .;
- B. Diazepam and fentanyl;
- G. Thiopental sodium and fentanyl;
- D. Trimeperidine and sodium oxybate .;
- E. Sodium oxybate and sodium thiopental;

**7. Select indications for perinephric block.**

**Pick all the correct answers**

- A. Renal colic;
- B. Intestinal paresis;
- B. Acute pancreatitis;
- D. Acute myocardial infarction .;
- D. Acute cholecystitis;
- E. Fracture of the pelvis;

**eight. What complications can occur during local anesthesia with novocaine? a) an allergic reaction; b) acute liver failure; c) accidental intravascular administration of the drug; d) collapse; e) respiratory arrest. Choose the correct combination of answers:**

1. a, b, c.
2. d.
3. a, d, e.
4. c, d, d.
5. everything is true.

**nine. Case blockade is used for:**

1. injuries to the limbs;
2. inflammatory diseases of the limbs;
3. fractures of the ribs;
4. snake bites;
5. Carrying out infiltration anesthesia as a basis.

Choose the correct combination of answers: A - 1, 2, 3, 4; B - 2, 3, 4, 5; C - 1, 3, 4, 5; D - all answers are correct.

**10. Essential anesthetics are characterized by: a) fast hydrolytic destruction in tissues; b) the duration of effective regional anesthesia with a single injection into the tissue; c) the admissibility of repeated administration of significant doses of the drug to prolong anesthesia; d) practically do not cause allergic reactions in the maximum allowable doses; e) are excreted from the body unchanged or are partially destroyed in the liver. Choose the correct combination of answers:**

1. a, c.
2. b, d.
3. a, b.
4. in, g.
5. g, d.

#### **A TASK**

When the level of the surgical stage of anesthesia is reached, optimal conditions are created for performing operations on the abdominal organs? Choose the correct answer:

A - I (2); B - W (3); H - W (1 - 2)?

## COLLOQUIUM "NARCOSIS"

### OPTION # 7

**1. Which of the intravenous anesthetics is preferable for induction of anesthesia in persons with blood loss of more than 1000 ml, hypovolemia, low blood pressure?**

- A) rexobarbital.
- B) sodium thiopental.
- B) toetamine.
- D) fentanyl + droperidol.

Choose the correct answer.

**2. Which of the breathing circuits is the safest for the patient?**

- A. Semi-open .;
- B. Semi-closed .;
- B. Open .;
- G. Closed .;

**3. The purpose of premedication is: a) prevention of the vagal effect; b) increased tone of the sympathetic nervous system; c) muscle relaxation; d) suppression of salivation; e) relieving emotional stress. Choose the correct combination of answers:**

- 1. a, d.
- 2. g, d.
- 3. in, g.
- 4. a, b, d, e.
- 5. b, c, d, e.

**4. Select the main mechanism of impairment of neuromuscular transmission by "long-acting" muscle relaxants.**

- A. Depolarization of the postsynaptic membrane and retardation of repolarization;
- B. Blocking cholinergic receptors without depolarizing the postsynaptic membrane;
- B. Violation of the release of acetylcholine;
- D. Inhibition of acetylcholinesterase .;

**5. What is required for tracheal intubation?**

**Pick all the correct answers**

- A. Sterile wipes .;

- B. Intubation tubes;
- B. Stomach tube;
- G. Laryngoscope;
- D. Bronchoscope .;

**6. What are the negative effects of ketamine?**

**Pick all the correct answers**

- A. Hallucinogenicity .;
- B. Possible development of psychotic reactions in the long-term postoperative period;
- B. Increase in heart rate;
- D. Increased cardiac output;
- E. Prolonged awakening with possible development of motor and speech excitement .;

**7. What concentration of procaine solution is used for intraoperative anesthesia according to A.V. Vishnevsky:**

- BUT) one%;
- B) 0.5%;
- IN) 0.25%;
- D) five%

Choose the correct answer.

**8. What drugs are classified as components of neuroleptanalgesia?**

- A. Diazepam and ketamine .;
- B. Fentanyl and droperidol .;
- B. Diazepam and fentanyl;
- G. Thiopental sodium and fentanyl;
- D. Trimeperidine and sodium oxybate .;
- E. Sodium oxybate and sodium thiopental;

**9. What concentration of procaine is used for conduction of local anesthesia?**

- A. 0.25-0.5%;
- B. 0.5-1.0% .;
- B. 1.0-2.0% .;

G. 2.0–5.0% .;

D. 10% .;

**10. What complications can occur during local anesthesia with novocaine? a) an allergic reaction; b) acute liver failure; c) accidental intravascular administration of the drug; d) collapse; e) respiratory arrest. Choose the correct combination of answers:**

1. a, b, c.

2. d.

3. a, d, e.

4. c, d, d.

5. everything is true.

### **A TASK**

In a weakened 70-year-old patient, after surgery - cholecystectomy, there is hypoventilation of the lungs, cyanosis, muscle relaxation after the use of non-depolarizing relaxants during anesthesia (residual curarization phenomena). With the help of which of the following drugs are these phenomena eliminated: strophanthin, sedkusen, promedol, proserin, fentanyl?

### **COLLOQUIUM "NARCOSIS"**

#### **OPTION # 8**

**1. Specify the most rational types of anesthesia for the reduction of hip and shoulder dislocations:**

1. endotracheal anesthesia with halothane;
2. mask anesthesia with halothane-oxygen mixture;
3. NLA;
4. intravenous anesthesia with barbiturates;
5. epidural anesthesia.

Choose the correct combination of answers: A - 1, 2, 4, 5; B - 1, 2; B - 3; D - 2, 4; D - 3, 5.

**2. What are the advantages of administering anesthesia in a semi-open circuit?**

**Pick all the correct answers**

- A. Profitability .;
- B. Possibility of more accurate dosing of the anesthetic mixture;
- B. Significant reduction in the pollution of the operating room atmosphere;
- D. Greater safety for the patient .;

**3. What prophylaxis of tongue sinking (mechanical asphyxia) is necessary for a patient in the early post-anesthesia period?**

1. at the end of the operation, intravenously inject neostigmine methyl sulfate (a muscle relaxant antagonist).
2. put the air duct.
3. provide constant monitoring of medical personnel and monitoring for 2 hours after anesthesia.
4. to introduce the patient with respiratory analeptics.
5. insert the tube into the stomach.

Choose the correct combination of answers: A - 1, 2; B - 2, 4; B - 1, 3, 4; G - 4, 5; D - 2, 3.

**4. How can the patient be transported after premedication?**

**Pick all the correct answers**

- A. On a gurney;
- B. On foot, accompanied by medical personnel;
- B. On foot, with normal health;
- G. In the chair .;
- D. After 2-12 hours;

**5. What are the possible complications after endotracheal anesthesia:**

1. recurarization;
2. vomiting;
3. edema of the vocal cords and subglottic space;
4. mechanical asphyxia (retraction of the tongue);
5. chills.

Choose the correct combination of answers: A - 1, 2; B - 3, 4; B - 2, 3, 4; G - 1, 2, 3; D - all answers are correct.

**6. Intravenous anesthesia with ketamine is contraindicated in:**

1. primary surgical treatment of wounds;
2. hepatic renal failure;
3. epilepsy;
4. arterial hypotension, large blood loss;
5. arterial hypertension.

Choose the correct combination of answers: A - 1, 2; B - 2, 3; B - 3, 5; G - 2, 5; D - all answers are correct.

**7. What types of anesthesia are conductive:**

1. according to Lukashevich-Oberst;
2. paravertebral;
3. epidural;
4. spinal;
5. intercostal.

Choose the correct combination of answers: A - 1, 2, 3, 4, 5; B - 2, 5; B - 1, 2, 4; G - 1, 2, 5; D - 1, 2, 3, 5.

**8. What drugs are used for induction of anesthesia?**

**Pick all the correct answers**

- A. Fentanyl;
- B. Thiopental sodium;
- B. Droperidol;
- G. Deprivan;
- D. Suxamethonium iodide;
- E. Diazepam .;

**9. What concentration of procaine is used for novocaine blockades?**

- A. 0.25-0.5%;
- B. 0.5-1.0% .;
- B. 1.0-2.0% .;
- G. 2.0-5.0% .;
- D. 10% .;

**10. Select indications for perinephral blockade.**

**Pick all the correct answers**

- A. Renal colic;
- B. Intestinal paresis;
- B. Acute pancreatitis;
- D. Acute myocardial infarction .;
- D. Acute cholecystitis;



E. Fracture of the pelvis;

### A TASK

Patient D., 50 years old, was diagnosed with cardiac arrest. What actions, in your opinion, should start resuscitation measures: a) giving the patient the position of Trendelenburg; b) conducting a closed heart massage; c) conducting mouth-to-mouth breathing, d) mechanical defibrillation; e) ensuring airway patency.

### COLLOQUIUM "NARCOSIS"

#### OPTION # 9

**1. What prophylaxis of tongue sinking (mechanical asphyxia) is necessary for a patient in the early post-anesthesia period?**

1. at the end of the operation, intravenously inject neostigmine methyl sulfate (a muscle relaxant antagonist).
2. put the air duct.
3. provide constant monitoring of medical personnel and monitoring for 2 hours after anesthesia.
4. to introduce the patient with respiratory analeptics.
5. insert the tube into the stomach.

Choose the correct combination of answers: A - 1, 2; B - 2, 4; B - 1, 3, 4; G - 4, 5; D - 2, 3.

**2. What are the advantages of administering anesthesia in a semi-closed circuit?**

**Pick all the correct answers**

- A. Profitability .;
- B. Possibility of more accurate dosing of the anesthetic mixture;
- B. Significant reduction in the pollution of the operating room atmosphere;
- D. Greater safety for the patient .;

**3. For what purpose does the anesthesiologist use muscle relaxants?**

1. to enhance (potentiate) the action of drugs.
2. to immobilize the patient.
3. to block vegetative reactions.
4. to stabilize hemodynamics.
5. for tracheal intubation.

Choose the correct combination of answers: A - all answers are correct; B - 1, 3, 4; B - 2, 4, 5; G - 1, 2, 3; D - 2, 5.

**4. What is included in the premedication before an emergency operation?**

- A. Sedatives and hypnotics together with narcotic analgesics 1.5-2 hours before surgery;
- B. Narcotic analgesics and antispasmodics 30-40 minutes before surgery;
- C. Narcotic analgesics and atropine 30-40 minutes before surgery;
- D. Narcotic analgesics and atropine 1.5-2 hours before surgery;
- E. All of the above is incorrect .;

**5. The disadvantages of mask anesthesia are:**

- 1. the danger of tongue sinking (mechanical asphyxia);
- 2. an increase in the anatomical "dead" space;
- 3. reduction of anatomical "dead" space;
- 4. danger of regurgitation and aspiration of gastric contents;
- 5. danger of overdose of inhalation anesthetic.

Choose the correct combination of answers: A - all answers are correct; B - 1, 4, 5; B - 1, 2, 4; G - 1, 5; D - 3, 4.

**6. Which of the intravenous anesthetics is preferable for induction of anesthesia in persons with blood loss of more than 1000 ml, hypovolemia, low blood pressure?**

- A) rexobarbital.
- B) sodium thiopental.
- B) toetamine.
- D) fentanyl + droperidol.

Choose the correct answer.

**7. Contraindications to local anesthesia are:**

- 1. pronounced inflammatory and cicatricial changes in tissues;
- 2. ongoing massive internal bleeding;
- 3. intolerance to anesthetics;
- 4. sharp nervous excitement of the patient;
- 5. the patient's age is less than 10 years.

Choose the correct combination of answers: A - 2, 4, 5; B - 1, 3, 5; B - 1, 2, 3, 4, 5; G - 3, 4, 5; D - 1, 3, 4, 5.

**eight. What types of anesthesia are conductive:**

- 1. according to Lukashevich-Oberst;
- 2. paravertebral;

3. epidural;

4.spinal;

5.intercostal.

Choose the correct combination of answers: A - 1, 2, 3, 4, 5; B - 2, 5; B - 1, 2, 4; G - 1, 2, 5; D - 1, 2, 3, 5.

**9. What amount of dry matter of local anesthetic is the maximum allowable for local anesthesia (procaine, lidocaine, trimecaine)?**

A. 200-400 mg;

B. 500 mg;

B. 600-800 mg.;

G. 1.0 g.;

D. 2.0 g.;

**10. What concentration of procaine is used for novocaine blockades?**

A. 0.25-0.5%;

B. 0.5-1.0% .;

B. 1.0-2.0%.;

G. 2.0–5.0% .;

D. 10% .;

#### **A TASK**

When carrying out cardiopulmonary resuscitation by one resuscitator, the following ratio of the frequency of mechanical ventilation (ALV) and chest compression (CHC) is recommended:

I V L K G K

one	:	five
2	:	fifteen
3	:	fifteen
2	:	five
one	:	10

#### **COLLOQUIUM "NARCOSIS"**

##### **OPTION No. 10**

**1. The disadvantages of mask anesthesia are:**

1. the danger of tongue sinking (mechanical asphyxia);
2. an increase in the anatomical "dead" space;
3. reduction of anatomical "dead" space;
4. danger of regurgitation and aspiration of gastric contents;
5. danger of overdose of inhalation anesthetic.

Choose the correct combination of answers: A - all answers are correct; B - 1, 4, 5; B - 1, 2, 4; G - 1, 5; D - 3, 4.

**2. Choose gaseous narcotic anesthetics.**

**Pick all the correct answers**

- A. Diethyl ether;
- B. Methoxyflurane;
- B. Nitrous oxide;
- G. Enfluran .;
- D. Cyclopropane;

**3. A 50-year-old patient is operated on for hernia of the white line of the abdomen. Mask anesthesia with halothane-oxygen mixture. BP - 130/60 mm Hg, heart rate - 78 per minute, respiratory rate - 18 per minute. Pupils - up to 2 mm, the reaction to light is sluggish, the corneal reflex is reduced. Determine the stage of anesthesia.**

- A) I.
- B) II.
- B) III1-2.
- D) Sh3.

Choose the correct answer.

**4. What prophylaxis of tongue sinking (mechanical asphyxia) is necessary for a patient in the early post-anesthesia period?**

1. at the end of the operation, intravenously inject neostigmine methyl sulfate (a muscle relaxant antagonist).
2. put the air duct.
3. provide constant monitoring of medical personnel and monitoring for 2 hours after anesthesia.
4. to introduce the patient with respiratory analeptics.
5. insert the tube into the stomach.

Choose the correct combination of answers: A - 1, 2; B - 2, 4; B - 1, 3, 4; G - 4, 5; D - 2, 3.

**5. What medications are used for traditional premedication?**

1. hexobarbital, sodium thiopental.
2. atropine, methocinia iodide.
3. trimeperidine, morphine, fentanyl.
4. strophanthin-K, lily of the valley glycoside.
5. calcium gluconate, calcium chloride.

Choose the correct combination of answers: A - 1, 2, 4; B - 3, 4, 5; B - 2, 3; G - 4, 5; D - 1, 3, 4, 5.

**6. Specify the most rational types of anesthesia for the reduction of hip and shoulder dislocations:**

1. endotracheal anesthesia with halothane;
2. mask anesthesia with halothane-oxygen mixture;
3. NLA;
4. intravenous anesthesia with barbiturates;
5. epidural anesthesia.

Choose the correct combination of answers: A - 1, 2, 4, 5; B - 1, 2; B - 3; D - 2, 4; D - 3, 5.

**7. For spinal anesthesia it is used:**

1. 5% procaine solution;
2. 1-2% lidocaine solution;
3. 0.5-2% trimecaine solution;
4. 10% solution of procaine;
5. 1% scoop solution.

Choose the correct combination of answers: A - 1, 2; B - 2, 3; B - 1, 4; G - 1.5; D - 4, 5.

**eight. What is the correct body position during the operation under spinal anesthesia with sovcaïn solution?**

- A) from the lowered upper half of the body (Trendelenburg position).
- B) with a raised upper half of the body.
- B) rhorizontal.
- D) on the side horizontal.
- D) in a sitting position, bent forward.

Choose the correct answer.

**nine. What concentration of procaine solution is used for intraoperative anesthesia according to A.V. Vishnevsky:**

BUT) one%;

B) 0.5%;

IN) 0.25%;

D) five%

Choose the correct answer.

**10. What complications are possible with spinal anesthesia? a) respiratory arrest; b) the occurrence of headache, paresis, paralysis; c) meningitis; d) drop in blood pressure; e) damage to the spinal cord. Choose the correct combination of answers:**

1. b, c, d, e.

2. a, c.

3. a, c, d.

4. a, b, c, d.

5. everything is true.

#### **A TASK**

Name the routes of drug administration during resuscitation: subcutaneous, intramuscular, intravenous, into the heart muscle, into the heart cavity, intratracheal

#### **COLLOQUIUM "NARCOSIS"**

##### **OPTION No. 11**

**1. The advantages of endotracheal anesthesia are:**

1. Reliable prevention of gastric content aspiration;

2. reduction of anatomical "dead" space;

3. an increase in the anatomical "dead" space;

4. providing complete muscle relaxation;

5. providing the opportunity to operate on the face, neck, head.

Choose the correct combination of answers: A - 1, 2, 5; B - 3, 4, 5; B - 1, 2, 4, 5; G - 1, 5; D - all answers are correct.

**2. Select vapor-generating liquid anesthetics.**

**Pick all the correct answers**

A. Nitrous oxide .;

B. Diethyl ether;

B. Methoxyflurane;

G. Trichlorethylene;

**3. The disadvantages of mask anesthesia are:**

1. the danger of tongue sinking (mechanical asphyxia);
2. an increase in the anatomical "dead" space;
3. reduction of anatomical "dead" space;
4. danger of regurgitation and aspiration of gastric contents;
5. danger of overdose of inhalation anesthetic.

Choose the correct combination of answers: A - all answers are correct; B - 1, 4, 5; B - 1, 2, 4; G - 1, 5; D - 3, 4.

**4. Select the signs of an overdose of ether anesthesia (the fourth level of the surgical stage).**

**Pick all the correct answers**

- A. Dilation of the pupil;
- B. Threaded pulse;
- B. Decrease in blood pressure;
- D. Clonic convulsions .;
- D. Absence of any reflexes .;

**5. What level of depth of general anesthesia (stage of anesthesia) is required for performing abdominal surgical interventions?**

- A. I – II .;
- B. III (2) –III (3) .;
- B. II – III (1) .;
- G. III (1) –III (2) .;
- D. III (2) -IV .;
- E. II – IV .;

**6. Essential anesthetics are characterized by: a) fast hydrolytic destruction in tissues; b) the duration of effective regional anesthesia with a single injection into the tissue; c) the admissibility of repeated administration of significant doses of the drug to prolong anesthesia; d) practically do not cause allergic reactions in the maximum allowable doses; e) are excreted from the body unchanged or are partially destroyed in the liver. Choose the correct combination of answers:**

1. a, c.
2. b, d.
3. a, b.

4. in, g.

5.g, d.

**7. What are the rational types of anesthesia for mastitis surgery?:**

1. local infiltration anesthesia;
2. endotracheal anesthesia;
3. mask anesthesia (halothane);
4. intravenous anesthesia;
5. conduction anesthesia (retromammary blockade).

Choose the correct combination of answers: A - 1, 4; B - 4, 5; B - 2, 3; G - 3, 4; D - 3, 4, 5.

**eight. Late complications of spinal anesthesia are considered:**

1. purulent meningitis;
2. motor paresis;
3. meningism;
4. headache;
5. cessation of breathing.

Choose the correct combination of answers: A - 1, 2, 4, 5; B - 2, 3, 4, 5; B - 1, 2, 3, 5; G - 1, 2, 3, 4; D - all answers are correct.

**nine. Contraindications to local anesthesia are:**

1. pronounced inflammatory and cicatricial changes in tissues;
2. ongoing massive internal bleeding;
3. intolerance to anesthetics;
4. sharp nervous excitement of the patient;
5. the patient's age is less than 10 years.

Choose the correct combination of answers: A - 2, 4, 5; B - 1, 3, 5; B - 1, 2, 3, 4, 5; G - 3, 4, 5; D - 1, 3, 4, 5.

**10. What drugs are used for spinal anesthesia?**

**Pick all the correct answers**

- A. Procain;
- B. Lidocaine;
- B. Bupivacaine;



G. Trimekain;

### A TASK

Patient N., 42 years old, was operated on for uterine fibroids, supravaginal amputation of the uterus was performed. She was on bed rest for 5 days. When getting out of bed on the 6th day, the patient suddenly fell. Shortness of breath, chest pains, cyanosis of the skin of the face and upper half of the chest appeared.

Your conclusion?

### COLLOQUIUM "NARCOSIS"

#### OPTION No. 12

#### 1. What medications are used for traditional premedication?

1. hexobarbital, sodium thiopental.
2. atropine, methocinia iodide.
3. trimeperidine, morphine, fentanyl.
4. strophanthin-K, lily of the valley glycoside.
5. calcium gluconate, calcium chloride.

Choose the correct combination of answers: A - 1, 2, 4; B - 3, 4, 5; B - 2, 3; G - 4, 5; D - 1, 3, 4, 5.

#### 2. What are the positive properties of nitrous oxide?

##### Pick all the correct answers

- A. Bronchodilating effect;
- B. Rapid onset of general anesthesia and rapid recovery of consciousness .;
- B. Lack of toxic effects on parenchymal organs;
- D. Expressed analgesic effect;
- E. Absence of irritation of mucous membranes and hypersecretion .;

#### 3. The advantages of endotracheal anesthesia are:

1. Reliable prevention of gastric content aspiration;
2. reduction of anatomical "dead" space;
3. an increase in the anatomical "dead" space;
4. providing complete muscle relaxation;
5. providing the opportunity to operate on the face, neck, head.

Choose the correct combination of answers: A - 1, 2, 5; B - 3, 4, 5; B - 1, 2, 4, 5; G - 1, 5; D - all answers are correct.

**4. Which of the breathing circuits is the safest for the patient?**

- A. Semi-open .;
- B. Semi-closed .;
- B. Open .;
- G. Closed .;

**5. Select gaseous narcotic anesthetics.**

**Pick all the correct answers**

- A. Diethyl ether;
- B. Methoxyflurane;
- B. Nitrous oxide;
- G. Enfluran .;
- D. Cyclopropane;

**6. Which of the following types of local anesthesia relate to local anesthesia? a) case anesthesia; b) anesthesia according to Oberst-Lukashevich; c) perirenal blockade; d) blockade of nerve plexuses and trunks; e) epidural anesthesia. Choose the correct combination of answers:**

- 1. b, d, e.
- 2. a, b, c.
- 3. b, d.
- 4. c, d, d.
- 5 B.

**7. Case blockade is used for:**

- 1. injuries to the limbs;
- 2. inflammatory diseases of the limbs;
- 3. fractures of the ribs;
- 4. snake bites;
- 5. Carrying out infiltration anesthesia as a basis.

Choose the correct combination of answers: A - 1, 2, 3, 4; B - 2, 3, 4, 5; B - 1, 3, 4, 5; G - 1, 2, 4, 5; D - all answers are correct.

**eight. The purpose of premedication is:**

1. prevention of vagal effect;
2. increasing the tone of the sympathetic nervous system;
3. suppression of salivation;
4. removal of emotional stress;
5. prevention of vomiting and regurgitation.

Choose the correct combination of answers: A - 1, 5; B - 1, 4, 5; B - 3, 4; G - 1, 2, 3, 4; D - 1, 2, 3, 4, 5.

**nine. For spinal anesthesia it is used:**

1. 1.5% procaine solution;
2. 1-2% lidocaine solution;
3. 0.5-2% trimecaine solution;
4. 10% solution of procaine;
5. 1% scoop solution.

Choose the correct combination of answers: A - 1, 2; B - 2, 3; B - 1, 4; G - 1.5; D - 4, 5.

**10. What concentration of procaine is used for infiltration anesthesia?**

- A. 0.25-0.5%;
- B. 0.5-1.0% .;
- B. 1.0-2.0% .;
- G. 2.0-5.0% .;
- D. 10%;

**A TASK**

In a weakened 70-year-old patient after cholecystectomy performed under endotracheal anesthesia using non-depolarizing relaxants, lung hypoventilation, cyanosis, and muscle relaxation are noted.

What is the reason for this condition, what should be the actions of the doctor? With the help of which of the following drugs are these phenomena eliminated: strophanthin, diazepam, trimeperidine, neostigmine methyl sulfate, fentanyl?

**COLLOQUIUM "NARCOSIS"**

**OPTION No. 13**

**1. How can a patient be transported after premedication?**

**Pick all the correct answers**

- A. On a gurney;
- B. On foot, accompanied by medical personnel;
- B. On foot, with normal health;
- G. In the chair .;
- D. After 2-12 hours;

**2. What are the positive properties of halothane?**

**Pick all the correct answers**

- A. Rapid onset of general anesthesia and rapid recovery of consciousness .;
- B. Pronounced bronchodilatory effect;
- B. Good muscle relaxant effect;
- D. Long-term relaxation of the motor muscles;
- D. Explosion and fire safety .;

**3. What medications are used for traditional premedication?**

1. hexobarbital, sodium thiopental.
2. atropine, methocinia iodide.
3. trimeperidine, morphine, fentanyl.
4. strophanthin-K, lily of the valley glycoside.
5. calcium gluconate, calcium chloride.

Choose the correct combination of answers: A - 1, 2, 4; B - 3, 4, 5; B - 2, 3; G - 4, 5; D - 1, 3, 4, 5.

**4. Select the main mechanism of impairment of neuromuscular transmission by "short-acting" muscle relaxants.**

- A. Depolarization of the postsynaptic membrane and retardation of repolarization;
- B. Blocking cholinergic receptors without depolarizing the postsynaptic membrane;
- B. Violation of the release of acetylcholine;
- D. Inhibition of acetylcholinesterase .;

**5. What is required for tracheal intubation?**

**Pick all the correct answers**

- A. Sterile wipes .;
- B. Intubation tubes;

- B. Stomach tube;
- G. Laryngoscope;
- D. Bronchoscope .;

**6. What complications are possible with spinal anesthesia? a) respiratory arrest; b) the occurrence of headache, paresis, paralysis; c) meningitis; d) drop in blood pressure; e) damage to the spinal cord. Choose the correct combination of answers:**

- 1. b, c, d, e.
- 2. a, c.
- 3. a, c, d.
- 4. a, b, c, d.
- 5. everything is true.

**7. What is the correct body position during the operation under spinal anesthesia with sovcaïn solution?**

- A) from the lowered upper half of the body (Trendelenburg position).
- B) with a raised upper half of the body.
- B) rhorizontal.
- D) on the side horizontal.
- D) in a sitting position, bent forward.

Choose the correct answer.

**8. What is the mechanism of action of local anesthetics?**

- A. The synthesis of a neurotransmitter is impaired, as a result of which the transmission of impulses along the nerve fiber is blocked .;
- B. The neurotransmitter is inactivated, as a result of which the transmission of impulses along the nerve fiber is blocked .;
- B. Sodium channels are blocked and depolarization processes are disturbed .;
- D. Anesthetic molecules increase the transmembrane potential .;

**nine. There are the following types of conduction anesthesia:**

- 1. anesthesia of the nerve trunks;
- 2. anesthesia of the nerve plexuses;
- 3. paravertebral;
- 4. spinal;
- 5. epidural.

Choose the correct combination of answers: A - 1, 2, 3; B - 1, 2, 3, 4; B - 1, 2, 4, 5; G - 1, 2, 5; D - all answers are correct.

**10. What amount of dry matter of local anesthetic is the maximum allowable for local anesthesia (procaine, lidocaine, trimecaine)?**

- A. 200-400 mg;
- B. 500 mg;
- B. 600-800 mg.;
- G. 1.0 g.;
- D. 2.0 g.;

#### **A TASK**

A 50-year-old patient D. was diagnosed with cardiac arrest.

What actions, in your opinion, should start resuscitation measures and what is the sequence of the doctor's actions: a) giving the patient a Trendelenburg position; b) conducting a closed heart massage; c) conducting mouth-to-mouth breathing; d) mechanical defibrillation; e) ensuring airway patency; f) the ratio of the number of breaths and chest compression.

#### **COLLOQUIUM "NARCOSIS"**

##### **OPTION No. 14**

**1. How can a patient be transported after premedication?**

**Pick all the correct answers**

- A. On a gurney;
- B. On foot, accompanied by medical personnel;
- B. On foot, with normal health;
- G. In the chair .;
- D. After 2-12 hours;

**2. What drugs are used for induction of anesthesia?**

**Pick all the correct answers**

- A. Fentanyl;
- B. Thiopental sodium;
- B. Droperidol;
- G. Deprivan;
- D. Suxamethonium iodide;

E. Diazepam .;

**3. What is included in the premedication before a planned operation?**

- A. Narcotic analgesics and antispasmodics 30-40 minutes before surgery;
- B. Sleeping pills and sedatives at night, in the morning - sedatives, narcotic analgesics with atropine 30–40 minutes before surgery;
- B. Sleeping pills and sedatives at night, in the morning - sedatives, narcotic analgesics and atropine;
- D. Narcotic analgesics and atropine 1.5-2 hours before surgery;

**4. What are the advantages of administering anesthesia in a semi-closed circuit?**

**Pick all the correct answers**

- A. Profitability .;
- B. Possibility of more accurate dosing of the anesthetic mixture;
- B. Significant reduction in the pollution of the operating room atmosphere;
- D. Greater safety for the patient .;

**5. The advantages of endotracheal anesthesia are:**

- 1. Reliable prevention of gastric content aspiration;
- 2. reduction of anatomical "dead" space;
- 3. an increase in the anatomical "dead" space;
- 4. providing complete muscle relaxation;
- 5. providing the opportunity to operate on the face, neck, head.

Choose the correct combination of answers: A - 1, 2, 5; B - 3, 4, 5; B - 1, 2, 4, 5; G - 1, 5; D - all answers are correct.

**6. There are the following types of conduction anesthesia:**

- 1. anesthesia of the nerve trunks;
- 2. anesthesia of the nerve plexuses;
- 3. paravertebral;
- 4. spinal;
- 5. epidural.

Choose the correct combination of answers: A - 1, 2, 3; B - 1, 2, 3, 4; B - 1, 2, 4, 5; G - 1, 2, 5; D - all answers are correct.

**7. Late complications of spinal anesthesia are considered:**

1. purulent meningitis;
2. motor paresis;
3. meningism;
4. headache;
5. cessation of breathing.

Choose the correct combination of answers: A - 1, 2, 4, 5; B - 2, 3, 4, 5; B - 1, 2, 3, 5; G - 1, 2, 3, 4; D - all answers are correct.

**eight. What types of anesthesia are preferable for surgery for panationality?**

1. intravenous anesthesia (barbiturates).
2. conduction anesthesia (according to Lukashevich-Oberst).
3. anesthesia with trichlorethylene.
4. infiltration anesthesia.
5. plexus anesthesia.

Choose the correct combination of answers: A - 1, 2; B - 3, 4; B - 3, 5; D - 3, 4; D - 1, 2, 3, 4, 5.

**9. Which of the intravenous anesthetics is preferable for induction of anesthesia in patients with blood loss of more than 1000 ml, hypovolemia, low blood pressure?**

- A) rexobarbital.
- B) sodium thiopental.
- B) toetamine.
- D) fentanyl + droperidol.

Choose the correct answer.

**10. What is the mechanism of action of local anesthetics?**

- A. The synthesis of a neurotransmitter is impaired, as a result of which the transmission of impulses along the nerve fiber is blocked .;
- B. The neurotransmitter is inactivated, as a result of which the transmission of impulses along the nerve fiber is blocked .;
- B. Sodium channels are blocked and depolarization processes are disturbed .;
- D. Anesthetic molecules increase the transmembrane potential .;

**A TASK**

In a weakened 70-year-old patient, after surgery - cholecystectomy, there is hypoventilation of the lungs, cyanosis, muscle relaxation after the use of non-depolarizing relaxants during anesthesia (residual curarization phenomena).



With the help of which of the following drugs are these phenomena eliminated: strophanthin, sedkusen, promedol, proserin, fentanyl?

## COLLOQUIUM "INJURIES. DAMAGE "

### OPTION # 1

**one. Common predisposing non-microbial factors of postoperative wound suppuration include:**a) old age; b) fatigue of surgeons during prolonged surgical intervention; c) taking hormones and immunosuppressants; d) trauma to the edges of the wound with a tool, linen; e) cachexia of the patient. Choose the correct combination of answers:

- 1) a B C.
- 2) a, b, d
- 3) b, d.
- 4) a, c, d.
- 5) 6, g, d.

**2. A prerequisite for primary wound healing is:**a) the presence of foci of necrosis and hematomas in the wound; b) contact of the edges of the wound; c) maintaining the viability of the edges of the wound; d) a small area of damage; e) bacterial contamination of wound tissues above the critical level. Choose the correct combination of answers:

1. a, c.
2. b, d.
3. b, c.
4. d, d.
5. everything is true.

**3. Determine the sequence of examination of a patient with acute pathology of the abdominal organs:** a) clarification of complaints and anamnesis of the patient; b) survey radiography of the abdominal organs; c) emergency laboratory tests of blood and urine; d) assessment of the patient's condition and physical examination of organs and systems; e) ultrasound of the abdominal organs; f) emergency laparoscopy. Choose the correct combination of answers:

- 1) a B C D E F.
- 2) e, a, d, c, b, f.
- 3) d, e, f, a, b, c.
- 4) b, d, f, a, c, d.
- 5) a, d, c, b, e, f.

**four. Choose a definition of injury.**

A. Damage to soft tissues and organs with the preservation of their macroscopic structure without violating the integrity of the skin and mucous membranes;

B. Damage to soft tissues and organs with preservation of their macroscopic structure with violation of the integrity of the skin or mucous membranes;

D. Extensive tissue damage with violation of their anatomical integrity;

**five. There are the following types of displacement of fragments:**

- 1) combined;
- 2) at an angle;

- 3) epiphyseal;
- 4) by lenght;
- 5) lateral.

Choose the correct combination of answers: A - 2, 4, 5; B - 1, 2, 4; B - 1, 3, 5; G - 3, 4, 5; D - 2, 3, 4.

**6. Fresh dislocations are called prescription:**

- A. Up to 2 days ;;
- B. 1-2 weeks ;;
- B. Up to 1 week ;;
- D. Up to 3-4 weeks ;;
- D. More than 4 weeks;

**7. What is the area of the patient's palm compared to the area of the entire surface of his body?**

- A. 0.1%;
- B. 1% .;
- B. 2-3%.;
- G. 3% .;
- D. 5% .;
- E. 9% .;

**eight. What does medical care for those who have been burned at the prehospital stage include?**

**Pick all the correct answers**

- A. Applying a sterile dressing to burn surfaces, excluding the face .;
- B. Immobilization .;
- B. Administration of analgesics;
- D. Introduction of tetanus toxoid and proto-tetanus serum .;
- D. The introduction of cardiac drugs in violation of hemodynamics (cordiamine, cardiac glycosides);
- E. Conducting artificial respiration when it is violated or stopped .;
- G. For deep and extensive burns - infusion therapy .;
- Z. Gentle transportation as soon as possible to a specialized hospital .;

**nine. What is the property of a gauze dressing?**

- A. Elasticity;
- B. Hemostaticity;

B. Hydrophobicity;

D. Hygroscopicity;

**10. Methods for stable fixation of fragments:**

1. Dieterichs bus;
2. Cramer's tire;
3. gypsum bandage;
4. intramedullary osteosynthesis;
5. extramedullary osteosynthesis;
6. compression-distraction osteosynthesis.

Choose the correct combination of answers: A - 1, 2, 4, 5; B - 3, 4, 5; B - 3, 4, 5, 6; G - 1, 4, 5, 6; D - 4, 5, 6.

**SITUATION PROBLEM**

After being beaten on the head, the patient lost consciousness. When he woke up, he got up and with difficulty came to the admission department of the hospital. After 8 hours from the moment of injury, he again lost consciousness, covered with cold sticky. Decreased blood pressure, increased pallor of the skin.

What could have happened and what are your actions?

**COLLOQUIUM "INJURIES. DAMAGE "**

**OPTION # 2**

**one. Gunshot wounds are characterized by:**a) the presence of a smaller inlet than the outlet; b) the presence of a destruction zone; c) the presence of an area of injury and necrosis; d) the presence of a molecular shock zone; e) the presence of a burn zone; f) the asepticity of the wound channel. Choose the correct combination of answers:

one) b, c, d.

2) c, d, f.

3) a, b, e, f.

four) a B C D.

five) everything is true.

**2. For the local treatment of purulent wounds in the inflammation phase, use:**a) fat-soluble ointments; b) proteolytic enzymes; c) water-soluble ointments; d) washing with antiseptics; e) immunization. Choose the correct combination of answers:

1) a, b.

2) a B C.

3) b, c, d.

4) a, d.

5) a, d, d.

**3. The types of injuries include:**

**Pick all the correct answers**

- A. agricultural ;;
- B. industrial ;;
- V. transport ;;
- G. for children ;;
- D. household ;;
- E. military ;;
- J. sports .;

**4. Specify the first aid measures for the syndrome of prolonged compression.**

**Pick all the correct answers**

- A. mechanical ventilation according to indications;
- B. Indirect cardiac massage according to indications;
- B. Overlay splints .;
- D. Introduction of the android;
- D. Introduction of diuretics;
- E. Application of a tourniquet;

**five. There are the following types of fractures by localization:**

- 1) epiphyseal;
- 2) subperiosteal;
- 3) diaphyseal;
- 4) metaphyseal;
- 5) epiphyseolysis.

Choose the correct combination of answers: A - 1, 2, 4; B - 1, 2, 3; B - 1, 2, 3, 4; G - 1, 3, 4; D - all answers are correct.

**6. There are the following signs of dislocation.**

**Pick all the correct answers**

- A. History of trauma with characteristic mechanism;
- B. Pain in the joint;
- B. Change in the axis of the limb .;
- D. Pathological mobility .;
- E. Forced specific position of the limb .;
- E. Absence of active and sharp limitation of passive movements in the joint;
- G. "Spring fixation" in the joint .;

**7. The appearance of coagulation necrosis is caused by:**

**Pick all the correct answers**

- A. boiling water, steam ;;
- B. flame ;;
- B. acid ;;
- G. alkali ;;
- D. incandescent objects .;

**8. Burn disease develops when:**

**Pick all the correct answers**

- A. superficial burns with an area of more than 50% ;;
- B. deep burns with an area of more than 10% ;;
- B. superficial burns with an area of more than 25% ;;
- G. deep burns with an area of more than 30% ;;
- D. superficial burns with an area of more than 75% ;

**nine. Is it possible to reuse the dressing?**

- A. Yes;
- B. Yes, but with re-sterilization;
- Q. Yes, if it is not contaminated;
- D. No, never;

**10. Specify the points where the needles are held during skeletal traction:**

1. olecranon;
2. anterior superior iliac spine;
3. large trochanter of the thigh;
4. condyles of the thigh;
5. tibial tuberosity;
6. supra-malleolar region;
7. ankles;
8. calcaneus.

Choose the correct combination of answers: A - 1, 2, 3, 4, 5, 8; B - 1, 3, 4, 5, 8; B - 1, 3, 4, 5, 6, 8; G - 1, 4, 5, 8; D - all answers are correct.

**SITUATION PROBLEM**

After a skull injury, the patient did not regain consciousness per day. Recovering, he began to complain of pain in the lower abdomen. It turned out that he had not urinated since the injury. We decided to drain the urine with a catheter, but received about 20 ml of urine, stained with blood.

What type of damage are we talking about and what needs to be done to clarify the diagnosis?

## COLLOQUIUM "INJURIES. DAMAGE "

### OPTION # 3

**one. There are the following types of wound healing:** a) by secondary resorption of the hematoma; b) by biological adhesion of tissues; c) secondary tension; d) primary intention; e) under the bandage; f) under a plaster cast; g) under the scab. Choose the correct combination of answers:

- 1) a, b, d.
- 2) d, f, g.
- 3) c, d, f.
- 4) c, d, d.
- 5) everything is true.

**2. When is it necessary to carry out the primary treatment of the wound in a patient delivered in a state of severe shock?**

- 1) immediately upon admission;
- 2) immediately after removing the patient from shock;
- 3) 2 hours after admission;
- 4) the next day;
- 5) after a blood transfusion.

**3. If perforation of a hollow organ is suspected, the main research method is:**

- 1) colonoscopy;
- 2) survey radiography of the abdominal organs;
- 3) Ultrasound;
- 4) irrigoscopy;
- 5) gastroscopy.

**4. What is the main symptom of hemarthrosis of the knee joint?**

- A. Increase in the volume of the joint;
- B. Hemorrhage into soft tissues .;
- B. Restriction of movement in the joint;
- D. Symptom of the patella ballot;

**five. Callus consists of the following layers:**

- 1) periosteal;
- 2) endosteal;
- 3) fascial;
- 4) intermediate;
- 5) paraossal.

Choose the correct combination of answers: A - 1, 2, 3; B - 1, 2, 4, 5; B - 1, 2, 3, 5; G - 1, 2, 4; D - all answers are correct.

**6. Indicate the indications for surgical treatment of dislocations.**

**Pick all the correct answers**

- A. Open dislocation;
- B. Irreducible dislocation;
- B. Pathological dislocation;
- D. Old dislocation;
- D. Habitual dislocation;

**7. What is the total area of the burn in case of damage to one lower limb, both upper limbs, head and neck?**

- A. 18% .;
- B. 36% .;
- B. 45% .;
- G. 46% .;
- D. 72% .;

**8. What is typical for burn shock?**

**Pick all the correct answers**

- A. Blood loss .;
- B. Plasma loss .;
- B. Rapid onset of collapse .;
- D. Hemolysis;
- D. Leukocytosis with a shift of the leukocyte formula to the left;
- E. No bleeding .;
- G. Dysfunction of the kidneys;

**nine. When dressing purulent wounds, must the dressing applied to the wound be sterile?**

- A. Yes;
- B. No;
- B. Desirable;
- D. Should be just clean;

**10. For the imposition of skeletal traction with a fracture of the bones of the lower leg, the measures are carried out in the following order:**

1. anesthesia of the fracture site;
2. passing the knitting needle through the heel bone;
3. anesthesia of the needle insertion site;
4. fixing the load and braces.

Determine the sequence of actions: A - 1, 2, 3, 4; B - 3, 1, 2, 4; B - 3, 2, 1, 4; G - 2, 3, 1, 4; D - 1, 3, 2, 4.

### **SITUATION PROBLEM**

As a result of a car accident, a 74-year-old patient has confused consciousness, no blood pressure, no pulse in the peripheral arteries (the pulse is determined only on the carotid and femoral arteries or by heartbeats), shallow and frequent breathing?

What is the phase of terminal states? What to do with the patient?

### **COLLOQUIUM "INJURIES. DAMAGE "**

#### **OPTION # 4**

**one. When the presence of bleeding from a postoperative wound is necessary:** a) remove the postoperative stitches; b) revise the wound; c) flash the bleeding vessel; d) to vacuum the wound; e) aspirate the contents through the drain. Choose the correct combination of answers:

one) a B C.

- 2) c, d, d.
- 3) a, b, d.
- 4) a, c, d.
- 5) everything is true.

**2. What manipulations are performed during the primary surgical treatment of the wound?** a) excision of the edges of the wound; b) stopping bleeding; c) removal of foreign bodies from the wound; d) washing the wound with antibiotics; e) excision of the bottom of the wound; f) excision of the wound walls. Choose the correct combination of answers:

- 1) a, c, d, e.
- 2) a, b, c, e, f.
- 3) b, c, d, e.
- 4) a, b, d, e.
- 5) everything is true.

**3. Highlight the clinical signs of soft tissue injury:**

- 1) pain;
- 2) hemorrhage;
- 3) hyperemia of the skin with clear boundaries;
- 4) swelling;
- 5) violation of organ functions.



Choose the correct combination of answers: A - 1, 2, 3, 4; B - 2, 3, 4, 5; B - 1, 4, 5; G - 1, 2, 4, 5; D - all answers are correct.

**4. In the clinical course of traumatic shock, the following phases are distinguished:**

**Pick all the correct answers**

- A. erectile ;;
- B. hypovolemic ;;
- V. torpid ;;
- G. motor;

**five. In what order does the histological picture change during the formation and maturation of callus?**

- 1) Primary callus formation.
- 2) Formation of connective tissue corn.
- 3) Osteoclastosis.
- 4) Productive reaction of the periosteum.
- 5) Secondary bone callus.

Indicate the correct sequence of stages of bone formation corns: A - 3, 2, 4, 1, 5; B - 3, 4, 2, 1, 5; B - 3, 1, 4, 2, 5; G - 3, 1, 2, 4, 5; D - 3, 4, 1, 2, 5.

**6. Select the characteristic complaints of the patient with the fracture.**

**Pick all the correct answers**

- A. Pain in the area of the fracture;
- B. Fever .;
- B. Pain in the area of the fracture when moving;
- D. Dysfunction of the limb .;
- D. Weakness, dizziness .;

**7. Which of the following is a complication of burns?**

**Pick all the correct answers**

- A. Burn shock;
- B. Convulsive syndrome .;
- B. Development of infection;
- D. Cicatricial contractures;

**8. What happens with deep burns?**

**Pick all the correct answers**

- A. Scab formation;
- B. Cleansing through the development of purulent-demarcation inflammation;
- B. Formation of thin-walled bubbles .;
- D. Carbonization of the upper layers of the skin without damaging the underlying ones;

**nine. Can one dressing nurse work in both "clean" and "purulent" dressing rooms?**

- A. No;
- B. Only in exceptional cases;
- Q. Yes, first in "clean", and at the end of the day in "purulent";

**10. What are the goals of transport immobilization?**

**Pick all the correct answers**

- A. Prevention of further displacement of bone fragments;
- B. Creation of conditions for transportation of the victim;
- B. Creation of optimal conditions for the consolidation of the fracture;
- D. Reduction of pain syndrome .;

### **SITUATION PROBLEM**

After a fall, the patient cannot lift his leg off the ground due to a sharp pain in the hip joint. The foot is rotated outward. The patient could not get to his feet due to pain in the joint area.

What happened and what is the first aid to the victim?

### **COLLOQUIUM "INJURIES. DAMAGE "**

#### **OPTION # 5**

**one. Which of the following is characteristic of the phase of inflammation in the wound process?**

- 1) violation of the permeability of the vascular wall.
- 2) development of inflammatory edema.
- 3) development of the granulation shaft.
- 4) leukocyte tissue infiltration.
- 5) development of tissue acidosis.

Choose the correct combination of answers: A - 1, 2, 3, 4; B - 2, 3, 1 5; B - 1, 2, 5; G - 1, 2, 4, 5; D - all answers are correct.

**2. What means help to remove purulent discharge from the woundwhat?**

- 1) drainages.
- 2) proteolytic enzymes.

3) hypertonic sodium chloride solution.

4) antibiotic solution.

5) calcium gluconate + sodium alginate + nitrofurazone.

Choose the correct combination of answers: A - 1, 2, 3, 4; B - 2, 3, 4, 5; C - 1, 3, 4, 5; D - 1, 2, 3, 5; E - all answers are correct.

**3. How quickly does the clinical picture of traumatic toxicosis develop?**

A) Immediately after compression of the limb.

B) After releasing the limb from compression.

C) 4-8 hours after the release of the limb.

D) Within 24-48 hours after the release of the limb.

E) 2-4 days after the release of the limb.

Choose the correct answer.

**4. What is called the Algover shock index?**

A. The ratio of heart rate to the value of systolic blood pressure;

B. The ratio of systolic blood pressure to heart rate;

C. The ratio of cardiac output to minute volume;

D. The ratio of systolic blood pressure to the patient's age;

**five. Define the basic principles of fracture treatment:**

1) reduction of bone fragments;

2) fixation of bone fragments in the correct position by immobilization;

3) removal of a hematoma by puncture from the fracture zone;

4) acceleration of the processes of bone consolidation and restoration of organ functions.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 3, 4; C - 1, 3, 4; D - 1, 2, 4; E - all answers are correct.

**6. When does secondary callus formation begin?**

A. At 3-6 weeks;

B. By the end of the 2nd week;

C. At the 2nd month .;

D. After 7-9 days;

**7. Select the basic principles of general burn treatment.**

Pick all the correct answers

A. Fighting pain;

- B. Anti-shock therapy .;
- B. Regular blood transfusions;
- D. Treatment of acute toxemia .;
- D. Prevention and control of infectious complications;
- E. Nutritional therapy and exercise therapy;

**8. Burns are divided into:**

Pick all the correct answers

- A. chemical ;;
- B. mechanical ;;
- V. beam ;;
- G. thermal .;

**nine. Is it possible to perform dressings for "clean" and "purulent" patients in one dressing room?**

- A. It is possible, subject to the order;
- B. It is possible, if there is a single dressing room;
- B. It is impossible;

**10. What is used for transport immobilization?**

**Pick all the correct answers**

- A. Shin Dieterichs .;
- B. Shield;
- B. Gudushauri apparatus;
- D. Ladder bus .;
- D. Sheenu Beller .;

**SITUATION PROBLEM**

A patient was admitted to the emergency room with a thermal burn of the left upper limb and trunk. The patient is sharply excited, does not come into contact. The pulse is fast, weak filling. On the burn surface, there are areas of necrosis, as well as burst blisters with remnants of the epidermis.

Determine the area and degree of the burn, as well as the phase of the burn disease. When can you start treating the burned surface?

## COLLOQUIUM "INJURIES. DAMAGE "

### OPTION # 6

**one. Prerequisite for primary wound healing:**

- A) the presence of blood clots in the wound;
- B) tight contact of the edges of the wound;
- B) introduction of antibiotics into the wound area;
- D) the presence of drainage in the wound;
- D) presence of infection.

Choose the correct answer.

**2. Which of these methods can be used for local treatment of purulent wounds in the phase of inflammation?**

- 1) ointment dressings.
- 2) proteolytic enzymes.
- 3) dressings with hypertonic solution.
- 4) rinsing with antiseptics.
- 5) immunization.

Choose the correct combination of answers: A - 1, 2; B - 1, 2, 3; B - 2, 3, 4; G - 1, 5; D - 1, 4, 5.

**3. Highlight the main pathogenic factors in the development of traumatic toxicosis:**

- 1) painful irritation;
- 2) fat embolism of internal organs;
- 3) plasma and blood loss;
- 4) violation of blood clotting;
- 5) traumatic toxemia.

Choose the correct combination of answers: A - 1, 2, 3; B - 1, 3, 4; B - 1.4.5; G - 1, 3, 5; D - 2, 3, 4.

**4. What is called the Algovver shock index?**

- A. The ratio of heart rate to the value of systolic blood pressure;
- B. The ratio of systolic blood pressure to heart rate;
- B. The ratio of cardiac output to minute volume;
- D. The ratio of systolic blood pressure to the patient's age;

**five. Surgical treatment of fractures is indicated in the following cases:**

- 1) with non-fused or incorrectly fused fractures;
- 2) with fresh fractures of the femoral neck (medial);
- 3) with transverse fractures;
- 4) in case of contact between bone fragments of muscles, fascia (interposition);
- 5) with impacted fractures.

Choose the correct combination of answers: A - 2, 3, 4, 5; B - 1, 3, 5; B - 3, 4, 5; G - 1, 2, 4; D - 1, 2, 3, 4.

**6. Name the absolute clinical signs of a fracture.**

**Pick all the correct answers**

- A. Edema in the area of the fracture;
- B. Characteristic deformity of the limb at the site of the fracture .;
- B. Crepitation of bone fragments;
- D. Shortening of the limb .;
- D. Pathological mobility .;

**7. What local features characterize an electrical burn?**

- 1) Coagulation necrosis.
- 2) Colliquation necrosis.
- 3) Painlessness.
- four) Progressive necrosis.
- five) Formation of "current signs".
- 6) Bull formation

Choose the correct combination of answers: A - 2, 3, 4, 5; B - 4, 5, 6, 1; B - 1, 3, 4, 5; G - 2, 4, 5, 6; D - 2, 3,4, 6.

**eight. The patient has an open hip fracture and arterial bleeding. What is the sequence of the indicated actions in the provision of first aid?**

- 1. The introduction of painkillers.
- 2. Dieterichs splint overlay.
- 3. Bandaging the wound.
- 4. The introduction of hemostatic agents.
- 5. Applying a tourniquet.

Choose the correct combination of answers: A - 2, 3, 4, 5, 1; B - 5, 1, 3, 2, 4; B - 3, 1, 4, 5, 2; G - 4, 5, 3, 1, 2; D - 1, 2, 3, 4, 5.

**nine. Should a dressing nurse wear sterile gloves?**

- A. Yes;
- B. No;
- B. Desirable;

**10. What are the basic rules of transport immobilization?**

**Pick all the correct answers**

- A. The immobilization must include at least two joints .;
- B. Give the limb a physiologically advantageous position;
- B. Perform primary reposition .;
- D. Put the splint on a soft pad or clothing .;

### **SITUATION PROBLEM**

The condition of a patient with an injury to the left jugular vein suddenly deteriorated sharply: breathing became shallow, uneven, pupils dilated, blood pressure dropped sharply, and facial muscle cramps appeared. Soon there was a cessation of breathing and heart.

What is the cause of death?

### **COLLOQUIUM "INJURIES. DAMAGE "**

#### **OPTION # 7**

**one. Which of the following injuries are proceeding most favorably?**

- BUT) inflicted with an ax.
- B) shrapnel wounds.
- IN) bullet wounds.
- D) applied with sharp cutting tools.
- D) applied with blunt objects.

Choose the correct answer.

**2. In what time frame is it necessary to carry out the initial treatment of the patient's wound, delivered in a state of severe shock?**

- BUT) immediately upon admission.
- B) immediately after removing the patient from shock.
- IN) 2 hours after admission.
- D) the next day.
- D) after establishing a blood transfusion.

Choose the correct answer.

**3. Indicate the main periods of the clinical course of traumatic toxicosis:**

- 1) reactive period;
- 2) the period of increasing edema and vascular insufficiency;

- 3) toxic period;
- 4) period of acute renal failure;
- 5) recovery period.

Choose the correct combination of answers: A - 1, 2, 3; B - 1, 3, 4; B - 2, 4, 5; G - 1, 3, 5; D - 1, 4, 5.

**4. What are the main measures for shock at the prehospital stage?**

**Pick all the correct answers**

- A. Elimination of asphyxia and provision of adequate breathing .;
- B. Stopping external bleeding .;
- B. Pain relief .;
- D. Introduction of plasma replacement solutions .;
- D. Imposition of skeletal traction;
- E. Transport immobilization .;
- G. Fast and gentle transportation .;

**five. What are the main local symptoms relevant to the diagnosis of a fracture?**

1. Pain, swelling.
2. Deformation of the limb.
3. Laceration with a lot of crushed tissue.
4. Pathological limb mobility.
5. Shortening of the limb.

Choose the correct combination of answers: A - 2, 3, 4; B - 2, 4, 5; B - 3.4.5; G - 1, 2, 3; D - 1, 3, 5.

**6. How long is the second phase of consolidation?**

- A. 3-6 weeks;
- B. 2 weeks;
- B. 3 months;
- G. 1 year or more;

**7. The characteristic features of burn shock are:**

- 1) excitement in the first hours after a burn;
- 2) torpid shock phase in the first hours after the burn;
- 3) hypovolemia;
- 4) hypercapnia;
- 5) oliguria.

Choose the correct combination of answers: A - 2, 4, 5; B - 1, 3, 4; B - 2.3.5; G - 1.3, 5; D - 1.4.5.

**eight. Acute burn toxemia continues:**

- A) 2-72 hours;



- B) 7-8 days;
- B) 10-15 days;
- D) 15-20 days;
- E) more than 20 days.

Choose the correct answer.

**nine. When is the first dressing performed after elective surgery?**

- A. On the same day;
- B. The next day;
- Q. It's all the same;
- D. On the 3rd day;

**10. Choose from the following, what can be used for transport immobilization of the upper limb?**

**Pick all the correct answers**

- A. Tight bandage .;
- B. Ladder bus .;
- B. Scallop bandage .;
- G. Sheen Beller .;
- D. Shin Dieterichs .;

### **SITUATION PROBLEM**

At a railway crossing, a man's leg was amputated at the level of the middle third of the thigh by the wheels of a locomotive.

What should be done to stop bleeding? What to do next with the victim?

### **COLLOQUIUM "INJURIES. DAMAGE "**

#### **OPTION # 8**

**one. What are the signs of the development of a putrefactive infection in the wound?**

- 1) fetid odor.
- 2) lack of granulation.
- 3) graycolor of exudate.
- 4) chills in the absence of pain.
- 5) severe pain in the absence of chills.

Choose the correct combination of answers: A - 1, 2, 5; B - 2, 3, 4; B - 1, 2, 3, 4; G - 1, 2, 5; D - 1, 3, 5.

**2. Contraindications for the primary surgical treatment of forearm wounds are:**

- A) wound contamination;
- B) crushing the edges of the wound;
- B) the presence of an open fracture of the radius;
- D) shock III degree;
- D) damage to the tendons.

Choose the correct answer.

**3. Indicate the main periods of the clinical course of traumatic toxicosis:**

- 1) reactive period;
- 2) the period of increasing edema and vascular insufficiency;
- 3) toxic period;
- 4) period of acute renal failure;
- 5) recovery period.

Choose the correct combination of answers: A - 1, 2, 3; B - 1, 3, 4; B - 2, 4, 5; G - 1, 3, 5; D - 1, 4, 5.

**4. What are the main stages of inpatient care for a victim with severe trauma and traumatic shock?**

**Pick all the correct answers**

- A. Initial inspection;
- B. Complete sanitization .;
- B. Elimination of respiratory disorders;
- D. Correction of hemodynamic disturbances;
- E. Diagnosis and treatment of other injuries;
- E. Conducting psychological tests;

**five. What are the main local symptoms relevant to the diagnosis of a fracture?**

- one. Pain, swelling.
- 2. Deformation of the limb.
- 3. Laceration with a lot of crushed tissue.
- four. Pathological limb mobility.
- five. Shortening of the limb.

Choose the correct combination of answers: A - 2, 3, 4; B - 2, 4, 5; B - 3.4.5; G - 1, 2, 3; D - 1, 3, 5.

**6. What are the first aid measures for fractures?**

**Pick all the correct answers**

- A. Pain relief .;
- B. Reposition .;
- B. Transport immobilization .;
- D. Imposition of skeletal traction;

**7. Predicting the severity of the burn. Which answer matches relatively favorable prognosis?**

- A) According to the rule of "nines" - 45%.
- B) According to the rule of "hundreds" - 81-100.
- B) According to the rule of "hundreds" - 40-60.
- D) Superficial burn - 20%.
- E) According to the Frank index - 30-60 units.

Choose the correct answer.

**eight. What periods are allocated during the burn disease and in what sequence do they pass?**

- 1) Acute burn toxemia.
- 2) Dehydration phase.
- 3) Burn shock.
- 4) Septicotoxemia.
- 5) Hydration phase.
- 6) Reconvalescence.

Choose the correct combination of answers: A - 1, 3, 2, 4; B - 3, 5, 1, 6; B - 3, 1, 4, 6; G - 1, 3, 6, 2; D - 3, 4, 1, 6.

**9. When is the dressing room wet cleaning?**

**Pick all the correct answers**

- A. Daily before starting work;
- B. Every day after the end of work;
- B. After each dressing;
- D. Once a week;

**10. Choose from the following, what can be used for transport immobilization of the lower limb?**

**Pick all the correct answers**

- A. Tight bandage .;
- B. Ladder bus .;
- B. Scallop bandage .;
- G. Sheen Beller .;
- D. Shin Dieterichs .;
- E. Banding to the other limb .;

## SITUATION PROBLEM

The patient was diagnosed with a fracture of the radius with interposition.

What method of treatment is indicated in this case?

## COLLOQUIUM "INJURIES. DAMAGE "

### OPTION # 9

**one. Typical signs of staphylococcal infection with wound suppuration are:**

- 1) the rapid development of the inflammatory process;
- 2) sluggish course of the inflammatory process;
- 3) severe pain in the sutured wound;
- 4) lack of pain in the wound;
- 5) severe intoxication.

Choose the correct combination of answers: A - 1, 3, 5; B - 2, 4, 5; B - 2, 3, 5; G - 1, 4, 5; D - 3, 5.

**2. What manipulations are included in the primary surgical treatment of the wound?**

- 1) excision of the edges of the wound.
- 2) stopping bleeding.
- 3) removal of foreign bodies from the wound.
- 4) washing the wound with antibiotics.
- 5) tight stitching or drainage.

Choose the correct combination of answers: A - 1, 3, 4, 5; B - 1, 2, 3, 5; B - 2, 3, 4, 5; G - 1, 2, 4, 5; D - all answers are correct.

**3. The clinical picture of a concussion is characterized by:**

- 1) loss of consciousness at the time of injury;
- 2) retrograde amnesia;
- 3) loss of functions of certain structures of the brain;
- 4) violation of sensitivity, hemiparesis;
- 5) dizziness.

Choose the correct combination of answers: A - 1, 2; B - 1, 3, 4; B - 1, 2, 4; G - 1, 4; D - 1, 2, 5.

**4. What are the main stages of inpatient care for a victim with severe trauma and traumatic shock?**

**Pick all the correct answers**

- A. Initial inspection;
- B. Complete sanitization .;
- B. Elimination of respiratory disorders;
- D. Correction of hemodynamic disturbances;
- E. Diagnosis and treatment of other injuries;

E. Conducting psychological tests;

**five. Which method belongs to the non-operative method of fixing bone fragments?**

- A) Silk stitching.
- B) Bonding with metal plates.
- B) Skeletal traction imposition.
- D) Introduction of pins into the osteoarticular canal.
- D) Application of the compression-distraction method.

Choose the correct answer.

**6. Indicate the relative signs of the fracture.**

**Pick all the correct answers**

- A. Local pain in the area of the fracture .;
- B. Edema, hematoma in the area of the fracture;
- B. Pathological mobility .;
- D. Dysfunction of the limb .;
- E. Shortening and forced position of the limb;
- E. Deformation of the limb .;

**7. Burn disease develops:**

- 1) With superficial burns up to 10% of the body surface area.
- 2) More than 15% of the body area.
- 3) More than 20% of the body area.
- 4) With deep - from 5 to 10% of the body area.
- 5) More than 10% of the body area.

Choose the correct combination of answers: A - 1, 4; B - 2, 5; B - 2, 4; G - 1.5; D-3.5.

**eight. With deep burns, the formation of a scab continues:**

- A) 1-2 days;
- B) 3-7 days;
- B) 8-10 days;
- D) 11-15 days;
- E) more than 15 days.

Choose the correct answer.

**nine. Where does limb bandaging begin?**

- A. From the distal end;
- B. From the proximal end;
- Q. It's all the same;

**10. What is included in the rules for applying a plaster cast?**

**Pick all the correct answers**

- A. Giving the limb a physiologically advantageous position;
- B. Immobilization of adjacent joints;
- B. Avoiding twisting of the bandage rounds;
- D. Leaving free fingers or toes .;
- D. Creation of conditions for skeletal traction .;

**SITUATION PROBLEM**

The patient has an open hip fracture and arterial bleeding.

What will be the first aid.

**COLLOQUIUM "INJURIES. DAMAGE "**

**OPTION No. 10**

**one. Early symptoms of anaerobic infection are:**

- 1) increased bodytemperature;
- 2) inappropriate patient behavior;
- 3) pain in the wound area;
- 4) an increase in the volume of the limb;
- 5) frequent weak pulse.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 3, 4, 5; B - 1, 2, 3, 4; G - 1, 3, 4, 5; D - all answers are correct.

**2. Early primary surgical debridement of the wound is performed:**

- A) within 24 hours;
- B) within 36 hours;
- B) within 48 hours;
- D) within 3 days;
- D) later 3 days against the background of antibiotic administration.

Choose the correct answer.

**3. The clinical picture of a concussion is characterized by:**

1. loss of consciousness at the time of injury;
2. retrograde amnesia;
3. loss of functions of certain structures of the brain;
4. violation of sensitivity, hemiparesis;
5. dizziness.

Choose the correct combination of answers: A - 1, 2; B - 1, 3, 4; B - 1, 2, 4; G - 1, 4; D - 1, 2, 5.

**4. Select the main components of basic shock therapy.**

**Pick all the correct answers**

- A. Replenishment of the bcc .;
- B. Fight against paresis of the gastrointestinal tract;
- B. Oxygen therapy;
- D. Correction of acidosis;
- D. Immunostimulating therapy .;

**five. Local causes of delayed fracture healing include.**

- 1) interposition of soft tissues;
- 2) avitaminosis;
- 3) displacement of bone fragments, not corrected by reduction;
- 4) violation of mineral metabolism;
- 5) violation of the blood supply to bone fragments.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 3, 4; B - 1,3,4; G - 3, 4, 5; D- 1.3.5.

**6. What are the basic rules of X-ray examination for fractures?**

**Pick all the correct answers**

- A. The damaged area should be located in the center of the image .;
- B. Obligatory execution of pictures in two projections, perpendicular to one another;
- B. At least one adjacent joint must be visible on the radiograph .;
- D. If necessary, it is possible to take a picture of a symmetrical zone;
- E. The X-ray must show two adjacent joints .;

**7. There are the following phases of local clinical manifestations of radiation burns:**

- 1) primary reaction;
- 2) latent period;
- 3) period of hyperemia and edema;
- 4) period of blistering;
- 5) the period of development of ulcers and necrosis.

Choose the correct combination of answers: A - 1, 2, 3, 5; B - 2, 3, 4, 5; B - 1, 2, 3, 4; G - 1, 3, 4, 5; D - 1, 2, 5.

**eight. Based on what data can we assume in the first hours deep burn?**

- 1) Pain sensitivity is preserved.
- 2) Pain sensitivity is absent.
- 3) There is edema of the unaffected lower extremities.
- 4) There is no edema.
- 5) With thermography, there is a decrease in heat transfer.

Choose the correct combination of answers: A - 1, 2, 5; B - 1, 3, 5; B - 2.3.5; G-2.4.5; D-2.5.

**nine. When applying a bandage to the lower limb, the doctor should stand to the patient:**

A. face;

B. back;

**10. Select the types of plaster casts.**

**Pick all the correct answers**

A. Longuetta .;

B. Circular bandage .;

B. Spiral dressing .;

D. Bridge dressing .;

D. Longitudinal circular dressing .;

E. Fenestrated bandage .;

G. Hip bandage .;

### **SITUATION PROBLEM**

A patient after applying a circular plaster cast with a fracture of the bones of the right shin developed pain and cyanosis of the toes, a feeling of "creeping" in the limbs and chilliness. The quality of the gypsum was not checked before application, it dries poorly and does not harden.

What is the reason for this and what needs to be done?

### **COLLOQUIUM "INJURIES. DAMAGE "**

#### **OPTION No. 11**

**one. What is called a wound?**

A. Any damage accompanied by a violation of the integrity of any organ and tissue;

B. Any damage accompanied by a violation of the integrity of the skin;

B. Any damage to body tissues, accompanied by a violation of the integrity of the integumentary tissues;



**2. What is the volume of primary wound treatment, at the bottom of which there is a large vascular bundle?**

- A) processing is not performed, treatment is conservative.
- B) the edges, walls and bottom of the wound are excised together with the vascular bundle, the wound is sutured.
- B) tooconservative treatment followed by the imposition of secondary seams.
- D) the edges and walls of the wound are excised without affecting the vascular bundle,foreign bodies and necrotic tissues are introduced, antibiotics are administered.
- D) the wound is excised and drained without suturing.

Choose the correct answer.

**3. With a closed lung injury, the following complications can be observedneniya:**

- 1) closed pneumothorax;
- 2) open pneumothorax;
- 3) valvular pneumothorax;
- 4) emphysema of soft tissues;
- 5) wet lung.

Choose the correct combination of answers: A - 1, 2, 3, 4; B - 1, 4, 5; B- 1, 3, 4, 5; G - 2, 3, 4, 5; D - 1, 2, 3, 5.

**4. When examining a victim with traumatic shock in a hospital, determine:**

**Pick all the correct answers**

- A. the adequacy of external respiration ;;
- B. the presence of ongoing external or internal bleeding ;;
- C. failure of the valve apparatus of the saphenous veins ;;
- D. state of hemodynamics ;;
- D. the presence of neurological disorders ;;
- E. anamnesis according to the "ample" system;

**five. It is generally accepted that a dislocation of the bone occurs, the articular surface of which is located distal to the other bones of the joint; the exception is dislocation:**

- A) humerus;
- B) the ulna;
- B) phalanges of the finger;
- D) femur;
- D) vertebra.

Choose the correct answer.

**6. What is used for pain relief in fractures?**

**Pick all the correct answers**

- A. Introduction of procaine into hematoma;
- B. Conductive anesthesia;
- B. Infiltration anesthesia according to Vishnevsky;
- G. Narcosis;

**7. Burn disease develops:**

1. With superficial burns up to 10% of the body surface area.
2. More than 15% of the body area.
3. More than 20% of the body area.
4. With deep - from 5 to 10% of the body area.
5. More than 10% of the body area.

Choose the correct combination of answers: A - 1, 4; B - 2, 5; B - 2, 4; G - 1.5; D-3.5.

**eight. Superficial burns include:**

1. 1st degree burns;
2. 2nd degree burns;
3. Sha degree burns;
4. burns of Shb degree;
5. IV degree burns.

Choose the correct combination of answers: A - 1; B - 1, 2; B - 1, 2, 3; D-1,2,3,4.

**nine. What kind of bandage starts any bandage?**

- A. Spiral;
- B. Circular;
- B. Creeping;
- G. Cruciform;

**10. What are the main disadvantages of the plaster cast?**

**Pick all the correct answers**

- A. Inability to retain bone fragments in areas with large muscle mass .;
- B. Possibility of bedsores formation;
- B. Inability to follow the skin under the bandage .;
- D. Atrophy of limb muscles, venous stasis;

**SITUATION PROBLEM**

What should be the actions of a patient with IV degree frostbite of the foot with developed wet gangrene of the foot, sepsis?

COLLOQUIUM "INJURIES. DAMAGE "

OPTION No. 12

**1. Select the main clinical signs of wounds:**

**Pick all the correct answers**

- A. pain;
- B. hematoma;
- B. bleeding;
- G. inflammatory changes;
- D. gaping;

**2. What is the name of the suture that is applied to close the wound if 14 days have not passed since the wound?**

- A) PPrimaryseam.
- B) delayed primary suture.
- B) RAnnysecondaryseam.
- D) late secondarysuture.
- D) provisional seam.

Choose the correct answer.

**3. Rupture of a hollow organ with a closed abdominal injury accompanied is given:**

- 1) the development of peritonitis;
- 2) hematuria;
- 3) the presence of free gas in the pelvic cavity;
- 4) the presence of free gas under the dome of the diaphragm.

Choose the correct combination of answers: A - 1, 2; B - 1, 3; B - 1, 4; G - 1, 2, 4.

**4. Select the reasons for the development of traumatic shock.**

**Pick all the correct answers**

- A. Painful impulses;
- B. Endotoxicosis;
- B. Hypothermia .;
- D. Blood loss .;
- D. Renal failure .;

**five. It is generally accepted that a dislocation of the bone occurs, the articular surface of which is located distal to the other bones of the joint; the exception is dislocation:**

BUT) humerus;

B) the ulna;

IN) phalanges of the finger;

D) thigh bone;

D) vertebra.

Choose the correct answer.

**6. Which of the following is a complication of fractures?**

**Pick all the correct answers**

A. Bleeding .;

B. Traumatic shock;

B. Damage to internal organs and great vessels, nerve trunks;

D. Congestive pneumonia;

D. Fat embolism .;

E. Wound infection, osteomyelitis, sepsis;

**7. The most effective element of first aid cabbage soup at the scene with limited area (up to 10% of the body surface) burns of I-II severity are:**

1) lubrication of the burnt surface with vaseline oil;

2) the imposition of a dry aseptic dressing;

3) applying a bandage with an antiseptic solution;

4) cooling the burnt area for 8-10 minutes with running cold water;

5) the use of a fat-soluble ointment.

**eight. What degree of frostbite is characterized by necrotic damage to the surface layer of the skin without damage to the growth layer and the restoration of destroyed elements of the skin in 1-2 weeks?**

1) frostbite of the 1st degree;

2) frostbite II degree;

3) frostbite of the III degree;

4) frostbite of III-IV degree;

5) frostbite IV degree.

**9. What is the functionally advantageous position for the ankle joint?**

A. Dorsiflexion;

B. Plantar extension;

B. Middle position;

**10. Select the benefits of skeletal traction.**

**Pick all the correct answers**

- A. Gradual and accurate reposition .;
- B. Ability to monitor the skin of the limb;
- B. Possibility of carrying out physiotherapeutic procedures;
- D. Constant forced position of the limb .;
- D. Possibility of movement in the joints;

**SITUATION PROBLEM**

During a car accident, the patient received a large laceration wound in the area of the left buttock. Delivered to the clinic 7 hours later from the moment of injury with signs of incipient inflammation.

Your diagnosis, first aid and treatment.

**COLLOQUIUM "INJURIES. DAMAGE "**

**OPTION No. 13**

**1. By origin, the following types of wounds are distinguished:**

**Pick all the correct answers**

- A. operating wounds;
- B. purulent wounds;
- B. accidental wounds;
- D. mixed wounds;

**2. What is the time frame for the late PST?**

- A. The first 12 hours;
- B. First 24 hours;
- V. 24–48 hours from the moment of injury;
- G. 48–72 h;
- D. more than 72 hours;

**3. Highlight the most effective instrumental ways diagnostics of closed abdominal injuries:**

- 1) scintigraphy;
- 2) esophagogastroduodenoscopy;

- 3) thermography;
- 4) laparoscopy;
- 5) radiography.

Choose the correct combination of answers: A - 2, 4, 5; B - 1, 2, 4, 5; B - 3, 4, 5; G - 4, 5; D - 4, 5.

**4. Select the reasons for the development of traumatic shock.**

**Pick all the correct answers**

- A. Painful impulses;
- B. Endotoxycosis;
- B. Hypothermia .;
- D. Blood loss .;
- D. Renal failure .;

**5. Which of the following is a complication of fractures?**

**Pick all the correct answers**

- A. Bleeding .;
- B. Traumatic shock;
- B. Damage to internal organs and great vessels, nerve trunks;
- D. Congestive pneumonia;
- D. Fat embolism .;
- E. Wound infection, osteomyelitis, sepsis;

**6. What are the absolute indications for osteosynthesis?**

**Pick all the correct answers**

- A. Open fracture;
- B. Damage by fragments of great vessels, nerves, internal organs;
- B. Interposition of soft tissues;
- D. False joint .;
- D. Multiple fracture;
- E. Incorrectly healed fracture with dysfunction of the limb;

**7. What periods are allocated during a burn disease and what is their sequence?** a) acute burn toxemia; b) dehydration phase; c) burn shock; d) septicotoxemia; e) hydration phase; f) convalescence.  
Choose the correct combination of answers:

- 1) a, c, b, d.
- 2) b, c, e, f.

- 3) c, a, d, f.
- 4) a, c, e.
- 5) c, d, a, f.

**eight. What microorganism most often grows on the burned surface in the first days after injury?**

1. Pseudomonas aeruginosa;
2. Proteus;
3. Escherichia coli
4. hemolytic streptococcus,
5. Staphylococcus aureus...

**9. What is the property of a gauze dressing?**

- A. Elasticity;
- B. Hemostaticity;
- B. Hydrophobicity;
- D. Hygroscopicity;

**10. What are the main disadvantages of the plaster cast?**

**Pick all the correct answers**

- A. Inability to retain bone fragments in areas with large muscle mass .;
- B. Possibility of bedsores formation;
- B. Inability to follow the skin under the bandage .;
- D. Atrophy of limb muscles, venous stasis;

#### **SITUATION PROBLEM**

A patient, a cattleman by profession, while caring for animals, received a blow with a hoof on his right cheek, on which a lacerated wound had formed.

What is the danger and how to prevent complications?

#### **COLLOQUIUM "INJURIES. DAMAGE "**

##### **OPTION No. 14**

**1. Surgical wounds have the following features:**

**Pick all the correct answers**

- A. , as a rule, they are applied for therapeutic purposes;
- B. they are applied deliberately;
- B. they are applied under aseptic conditions;

- G. they are applied with minimal tissue trauma;
- D. are not accompanied by pain;
- E. are usually accompanied by severe bleeding;

**2. What is the volume of primary wound treatment, at the bottom of which there is a large vascular bundle?**

- A) processing is not performed, treatment is conservative.
- B) the edges, walls and bottom of the wound are excised together with the vascular bundle, the wound is sutured.
- B) tooconservative treatment followed by the imposition of secondary seams.
- D) the edges and walls of the wound are excised without affecting the vascular bundle,foreign bodies and necrotic tissues are introduced, antibiotics are administered.
- D) the wound is excised and drained without suturing.

Choose the correct answer.

**3. Which of the following factors can lead to injury?**

**Pick all the correct answers**

- A. Mechanical strength .;
- B. High or low temperature .;
- B. Biological factors .;
- D. Electric current .;
- D. Radioactive radiation .;
- E. Chemicals .;

**4. Select the main components of basic shock therapy.**

**Pick all the correct answers**

- A. Replenishment of the bcc .;
- B. Fight against paresis of the gastrointestinal tract;
- B. Oxygen therapy;
- D. Correction of acidosis;
- D. Immunostimulating therapy .;

**5. What layers are distinguished in primary callus?**

**Pick all the correct answers**



- A. Paraossal .;
- B. Medullary .;
- B. Periosteal;
- G. Endostalny .;
- D. Intermediate .;

**6. What is used for extramedullary osteosynthesis?**

**Pick all the correct answers**

- A. Plates .;
- B. Screws .;
- B. Spokes .;
- G. Staples .;
- D. Nails .;

**7. Based on what data in the first hours after thermal What is a deep burn?**a) pain sensitivity is preserved; b) pain sensitivity is absent; c) there is edema of unaffected surrounding tissues; d) there is no edema; e) with thermography, there is a decrease in heat transfer. Choose the correct combination of answers:

one) a, b, d.

2) a, c, d.

3) b, c, d.

four) b, d, d.

five) b, d.

**eight. What degree of frostbite is characterized by necrotic damage to the surface layer of the skin without damage to the growth layer and the restoration of destroyed elements of the skin in 1-2 weeks?**

1. frostbite of the 1st degree;
2. frostbite II degree;
3. frostbite of the III degree;
4. frostbite of III-IV degree;
5. frostbite IV degree.

**9. Is it possible to reuse the dressing?**

- A. Yes;
- B. Yes, but with re-sterilization;
- Q. Yes, if it is not contaminated;

D. No, never;

**10. Choose from the following, what can be used for transport immobilization of the upper limb?**

**Pick all the correct answers**

- A. Tight bandage .;
- B. Ladder bus .;
- B. Scallop bandage .;
- G. Sheen Beller .;
- D. Shin Dieterichs .;

### **SITUATION PROBLEM**

The hunter was bitten by a wolf.

What can develop and what measures can be taken to prevent this disease?

### **COLLOQUIUM "INFECTION"**

#### **OPTION # 1**

**one. According to the source of occurrence, the following types of surgical infection are distinguished: a) endogenous; b) exogenous; c) mixed; d) specific; e) non-specific. Choose the correct combination of answers:**

- 1) a B C.
- 2) d, d.
- 3) c, d, d.
- 4) a, b.
- 5) everything is true.

**2. Therapeutic measures in the presence of a boil are reduced to:**

- 1) rubbing the surrounding skin with 70% alcohol;
- 2) in the presence of necrotic masses - squeezing them out, followed by a bandage with a hypertonic solution;
- 3) injecting with penicillin with procaine;
- 4) taking sulfonamides inside;
- 5) local UV radiation.

Choose the correct combination of answers: A - 1, 3, 4, 5; B - 1, 2; B - 1, 2, 4, 5; G - 3, 5; D - all answers are correct.

**3. What is the direction of the incisions when opening a retromammary abscess?**

- A. Radar;
- B. Semi-oval near the areola;
- B. Semi-oval at the lower edge of the gland;
- D. Circular around the nipple;

**four. Therapeutic measures for erythematous erysipelas localized on the lower leg, are reduced to:**

- 1) imposition of wet dressings with nitrofurazone;
- 2) intramuscular administration of antibiotics;
- 3) desensitizing therapy (diphenhydramine, calcium chloride);
- 4) UV irradiation of the inflammation focus;
- 5) warm baths with potassium permanganate.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 3, 4; C - 2, 3, 5; G - 1, 2, 3, 5; D - all answers are correct.

**5. Select an abscess definition.**

**Pick all the correct answers**

- A. Accumulation of pus in various body cavities.
- B. Accumulation of pus in the hollow organs.
- C. Delimited accumulation of pus in various tissues.
- D. Delimited accumulation of pus in adipose tissue.

**6. TO non-clostridial anaerobic microflora include: a) fusobacteria; b) peptostreptococci; c) streptococci; d) proteus; e) staphylococci; f) eubacteria; g) peptococci. Choose the correct combination of answers:**

- 1) c, d, f.
- 2) d, e, f.
- 3) a, b, f, g.
- 4) c, d, d.
- 5) everything is true

**7. Which of the following is indicated for the treatment of anaerobic infection?**

**Pick all the correct answers**

- A. Surgical wound treatment .;
- B. Hyperbaric oxygenation .;
- C. Wound packing;
- D. Use of antigangrenous sera;
- E. Detoxification therapy .;
- F. Antibacterial therapy .;

**8. What is characteristic of an anaerobic infection wound?**

**Pick all the correct answers**

- A. The tissues inside the wound are sharply swollen .;

- B. A large amount of purulent discharge .;
- B. Severe hyperemia of the skin around the wound .;
- D. Scanty discharge of a putrid character .;
- D. Wound tissue of dirty gray color .;
- E. Phenomena of inflammation are determined only in the tissues of the wound .;

**nine. Early symptoms of anaerobic infection are: a) high body temperature; b) inappropriate behavior of the patient; in)bursting pain in the wound; d) swelling of the wound tissues; e) frequent weak pulse. Choose the correct combination of answers:**

- 1) a B C.
- 2) b, c, d, e.
- 3) a B C D.
- 4) a, c, d, e.
- 5) everything is true.

**10. Name the main localization of tuberculosis in bone lesions:**

- 1) diaphysis of long tubular bones;
- 2) diaphysis of the phalanges of the fingers;
- 3) vertebral bodies;
- 4) flat bones;
- 5) epiphyses of long tubular bones.

Choose the correct combination of answers: A - 1, 3; B - 1, 2, 3; B - 2, 3, 4; G - 2, 3, 5; D - 1, 3, 5.

### A TASK

A 30-year-old man came to the surgeon at the polyclinic with complaints of a painful lump in the upper lip with a pus prone in the center, pain in this area, headache, fever up to 39 ° C. On examination, a cone-shaped rising skin infiltrate with a diameter of 0.5 cm, in the center is the apex of the necrotic rod. The edema spreads to the eye area, as a result of which the palpebral fissure is somewhat narrowed.

Make a diagnosis. What is the tactics of a polyclinic doctor? What treatment will you use? Is surgery necessary?

### COLLOQUIUM "INFECTION"

#### OPTION # 2

**one. To general non-microbial etiological factors for the development of purulent surgical infection include: a) the patient's age; b) diabetes mellitus; c) taking hormonal drugs; d) ineffective hemostasis; e) electrocoagulation and electrosurgery. Choose the correct combination of answers;**

- one) a, 6.
- 2) a B C.
- 3) c, d, d.
- four) d, d.
- five) everything is true.

**2. What is the location and direction of the incision when opening a retromammary abscess?**

- A) Radar in the upper quadrants of the breast.
- B) Semi-oval at the lower edge of the gland.
- B) Radar in the lower half of the mammary gland.
- D) Semi-oval above the upper edge of the gland.
- E) Circular near the nipple.

Choose the correct answer.

**3. Select the main methods of treatment for carbuncle.**

**Pick all the correct answers**

- A. Physiotherapy.
- B. Injecting the carbuncle with antibiotics.
- B. Excision of necrotic tissues within healthy ones.
- D. Dissection of the skin and subcutaneous tissue to healthy tissues.
- D. Detoxification therapy.
- E. General antibiotic therapy.

**four. In acute mastitis in the serous stage, treatment is reduced to:**

- 1) cut;
- 2) prevention of lactostasis;
- 3) supporting the mammary gland with a scarf bandage;
- 4) general antibiotic therapy;
- 5) retromammary procaine blockade with antibiotics and proteolytic enzymes.

Choose the correct combination of answers: A - 1; B - 1, 2, 3; B - 3, 4, 5; G - 2, 3, 4, 5; D - all answers are correct.

**5. Select the clinical forms of erysipelas.**

**Pick all the correct answers**

- A. Erythematous.
- B. Bulleznaya.
- B. Necrotic.
- D. Erythematous-hemorrhagic.
- D. Erythematous-bullous.
- E. Phlegmonous.

**6. Early symptoms of anaerobic infection are: a) high body temperature; b) inappropriate behavior of the patient; c) bursting pain in the wound; d) swelling of the wound tissues; e) frequent weak pulse. Choose the correct combination of answers:**

1. a B C.
2. b, c, d, e.
3. a B C D.
4. a, c, d, e.
5. everything is true.

**7. What is characteristic of anaerobic infection wound?**

**Pick all the correct answers**

- A. The tissues inside the wound are sharply swollen .;
- B. A large amount of purulent discharge .;
- B. Severe hyperemia of the skin around the wound .;
- D. Scanty discharge of a putrid character .;
- D. Wound tissue of dirty gray color .;
- E. Phenomena of inflammation are determined only in the tissues of the wound .;

**8. Select possible types of surgical treatment for anaerobic infection.**

**Pick all the correct answers**

- A. Execution of "stripe" cuts .;
- B. Wide excision of necrotic tissue in the affected area .;
- B. Amputation of the affected limb;
- D. Opening and drainage .;

**nine. TO non-clostridial anaerobic microflora include: a) fusobacteria; b) peptostreptococci; c) streptococci; d) proteus; e) staphylococci; f) eubactors; g) peptococci. Choose the correct combination of answers:**

1. c, d, f.
2. d, e, f.
3. a, b, f, g.
4. c, d, d.
5. everything is true

**10. In the course of osteoarticular tuberculosis, the following phases are distinguished:**

- 1) general tuberculous intoxication;
- 2) prearthritic;
- 3) arthritic;
- 4) post-arthritic;
- 5) relapse.

Choose the correct combination of answers: A - 1, 3, 5; B - 2, 3, 4; B - 1, 2, 5; G - 1, 2, 3, 4; D - all answers are correct.

## A TASK

A 40-year-old patient K. turned to the doctor, and 2 days before his visit, a splinter fell under the nail plate of the third finger of his left hand during carpentry work. He removed the splinter himself. At the time of treatment, complaints of severe twitching pains under the nail. Pressure on the nail makes the pain worse. When viewed under the nail plate, an oblong-shaped accumulation of pus is determined, reaching almost the nail hole.

What is your diagnosis? Surgical tactics? Conservative treatment / Surgery? Which exactly? What type of pain relief? Is tetanus prophylaxis necessary?

## COLLOQUIUM "INFECTION"

### OPTION # 3

**one. The local non-microbial etiological factors of the development of purulent surgical infection include: a) traumatic performance of the surgical aid; b) electrocoagulation and electrosurgery; c) the imposition of a large number of ligatures; d) the use of non-absorbable suture material; e) ineffective hemostasis; f) the duration of the implementation of the operational manual. Choose the correct combination of answers:**

- 1) a B C.
- 2) c, d, d.
- 3) d, e, f.
- 4) a, c, d.
- 5) everything is true.

**2. What should be done with phlegmon of soft tissues in the softening stage?**

- A) Cold (hypothermia).
- B) Wide incision and drainage.
- B) Puncture followed by bacteriological examination.
- D) Hot compress.
- D) Procaine chipping with antibiotics.

Choose the correct answer.

**3. What is the direction of the incisions when opening an intramammary abscess?**

- A. Radar.
- B. Semi-oval near the areola.
- B. Semi-oval at the lower edge of the gland.
- D. Circular around the nipple.

**4. Furuncle - purulent inflammation:**

**Pick all the correct answers**

- A. sweat gland;

- B. cellulose surrounding the hair follicle;
- B. hair follicle;
- G. sebaceous gland with surrounding fiber.

**5. Carbuncle - purulent-necrotic inflammation:**

**Pick all the correct answers**

- A. sweat glands;
- B. hair follicle;
- B. sebaceous gland with surrounding tissue;
- D. several hair follicles;
- D. subcutaneous tissue and skin.

**6. With the development of Clostridial anaerobic infection, the following types of surgical treatment are used: a) drainageration of the abscess; b) wide dissection of the wound; c) dissection of fascial cases; d) amputation with stump dissection; e) amputation with the imposition of a tourniquet and suturing of the stump. Choose the correct combination of answers:**

- 1) a, c, d.
- 2) a, b, d.
- 3) b, c, d.
- 4) b, c, d.
- 5) d, d.

**7. TO non-clostridial anaerobic microflora include: a) fusobacteria; b) peptostreptococci; c) streptococci; d) proteus; e) staphylococci; f) eubactors; g) peptococci. Choose the correct combination of answers:**

- 1. c, d, f.
- 2. d, e, f.
- 3. a, b, f, g.
- 4. c, d, d.
- 5. everythingistrue

**eight. Daily therapeutic dose of tetanus toxoid:**

- A) 3000-5000 ME;
- B) 10,000-20,000 ME;
- B) 50,000 ME;
- D) 100,000-150,000 ME;
- D) 200 000 IU.

Choose the correct answer.



**nine. Tetanus treatment includes: a) anti-tetanus globulin; b) tetanus toxoid; c) anti-tetanus sycrank; d) tranquilizers and barbiturates; e) muscle relaxants; f) mechanical ventilation. Choose the correct combination of answers:**

1. a B C D.
2. c, d, e, f.
3. a, c, d.
4. b, d, f.
5. everything is true.

**10. Clinical signs of bone tuberculosis:**

- 1) damage to the diaphysis of long tubular bones;
- 2) frequent damage to nearby joints;
- 3) damage to the growth zone of the bone;
- 4) negative symptom of Aleksandrov;
- 5) amyotrophy.

Choose the correct combination of answers: A - 1,2, 3; B -2, 3.4; B - 1.4, 5; D - 1, 3, 5; D - 2, 3, 5.

### A TASK

The seamstress turned to the surgeon of the polyclinic with complaints of pain in the legstine phalanx of the second finger of the right hand. The night did not sleep. From the anamnesis of the disease it is known that the day before, during work, she 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 a pronounced tension and soreness of soft tissues, local hyperthermia and hyperemia, at the injection site there is a detachment of the epidermis with a diameter 0.3 cm with accumulation of pus underneath.

What is your diagnosis? Doctor's tactics? Online access type? How to check if there is a propagation of the process to an adjacent phalanx? Is drainagenecessary? Patient management in the postoperative period?

### COLLOQUIUM "INFECTION"

#### OPTION # 4

**one. The main signs of bacterial toxic shock: a) high body temperature; b) bradycardia; c) chills; d) drop in blood pressure; e) oliguria. Choose the correct combination of answers:**

- 1) a, c, d, e.
- 2) a, b, c, e.
- 3) b, c, d, e.
- 4) a, c, d.
- 5) everything is true

**2. The following clinical signs are characteristic of the carbuncle:**

- 1) painful infiltration;
- 2) painless infiltration;
- 3) the presence of skin necrosis and purulent pustules;
- 4) the presence of necrosis with small hemorrhagic vesicles;
- 5) an increase in regional lymph nodes.

Choose the correct combination of answers: A - 1, 3, 5; B - 2, 3, 5; B -2.4.5; D - 1, 3, 4; D - 1.4.5.

**3. Name the factors predisposing to the development of mastitis.**

**Pick all the correct answers**

- A. Cracked nipple.
- B. Stagnant milk.
- B. Pathological childbirth.
- D. Repeated childbirth.
- E. Long-term feeding of the child.

**4. Select the features of the surgical treatment of the carbuncle.**

**Pick all the correct answers**

- A. Cruciform incision;
- B. Wide dissection of tissue to healthy;
- B. Closed drainage;
- D. Minimal tissue dissection;
- D. Excision of necrotic tissue;

**five. What microorganism causes erysipelas? a) staphylococcus; b) streptococcus; c) Pseudomonas aeruginosa; d) vulgar proteus; e) peptococcus.**

one) but.

2) b.

3) in.

4) g.

5) etc.

**6. Local signs of an infectious wound process caused by non-clostridial anaerobic microflora include: a) gray wound tissue; b) an abundant amount of dirty gray, brown discharge; c) the absence of necrosis; d) an abundance of necrotic tissues; e) the presence of bright pink granulations; f) accumulation of gas in soft tissues. Please select the correct combination of answers:**

1) a, b, d

2) c, d, e.

3) a, b, d.

4) a, b, e, f.

5) everything is true.

**7. With the development of Clostridial anaerobic infection, the following types of surgical treatment are used: a) drainageration of the abscess; b) wide dissection of the wound; c) dissection of fascial cases; d) amputation with stump dissection; e) amputation with the imposition of a tourniquet and suturing of the stump. Choose the correct combination of answers:**

1. a, c, d.

2. a, b, d.

3. b, c, d.
4. b, c, d.
5. d, d.

**8. What does emergency tetanus prophylaxis include?**

**Pick all the correct answers**

- A. Passive immunization .;
- B. Administration of antibiotics .;
- B. Active immunization .;
- G. PHO wounds .;

**nine. Operational aid for putrefactive infection includes: a) the widest possible dissection of the wound; b) removal of necrotic subcutaneous tissue; c) dissection of fascial cases; d) removal of devitalized muscles; e) eversion and fixation of the wound edges. Choose the correct combination of answers:**

1. a B C.
2. d, d.
3. b, d.
4. a, c, d.
5. everything is true.

**10. Identify early radiological signs of bone and joint tuberculosis:**

- 1) osteoporosis;
- 2) osteosclerosis;
- 3) absence of periostitis;
- 4) the presence of a sequestral box;
- 5) dense bone sequestrs;
- 6) sequestration of the "melting sugar" type.

Choose the correct combination of answers: A - 2, 4, 5; B - 1, 4, 5; B - 1, 4, 6; G - 1, 3, 6; D - 2, 3, 6.

**A TASK**

A 6-year-old child has complaints of an increase in body temperature up to 37.6 ° C, pain in the area of the right hip joint when walking. There is atrophy of the muscles of the right lower limb, smoothness of the inguinal and gluteal folds. X-ray examination revealed destruction of the femoral head.

What disease should be assumed?

**COLLOQUIUM "INFECTION"**

**OPTION # 5**

**1. What is typical for inflammatory changes in the composition of peripheral blood?**

**Pick all the correct answers**

- A. Leukocytosis;
- B. Anemia;
- B. Shift of the leukocyte formula to the left;

D. Increased ESR;

D. Lymphocytosis;

**2. Taking into account the clinical signs, the following forms can be distinguished faces:**

- 1) erythematous;
- 2) bullous;
- 3) phlegmonous;
- 4) purulent;
- 5) necrotic.

Choose the correct combination of answers: A - 1, 2, 3, 4; B - 2, 3, 4, 5; B - 1, 2, 3, 5; G - 1, 3, 4, 5; D - all answers are correct.

**3. According to the source of occurrence, the following types of surgical infection are distinguished: a) endogenous; b) exogenous; c) mixed; d) specific; e) non-specific. Choose the correct combination of answers:**

1. a B C.
2. d, d.
3. c, d, d.
4. a, b.
5. everything is true.

**4. For the treatment of erythematous erysipelas are used:**

**Pick all the correct answers**

- A. wet antiseptic dressings;
- B. antibiotics;
- B. sulfonamides;
- D. desensitizing therapy;
- D. UFO of the affected skin areas.

**five. What method of treatment is used for soft tissue phlegmon in the stage of purulent fusion?**

- 1) cold (hypothermia);
- 2) wideincision anddrainage;
- 3) puncturefollowedbybacteriological examination;
- 4) hot compress;
- 5) novocainechippingwith antibiotics.

**6. When complex treatment of gas gangrene is used: a) excision of necrotic tissues; b) the widest possible dissection of tissues; c) antibacterial monotherapy; d) detoxification infusion therapy; e) hyperbaric oxygenation; f) antibacterial combinedtherapy; g) muscle relaxants + mechanical ventilation. Choose the correct combination of answers:**

- 1) a, b, d, e, f.
- 2) d, f, g.
- 3) c, d, f.
- 4) b, f, g.

5) everything is true.

**7. Early symptoms of anaerobic infection are: a) high body temperature; b) inappropriate behavior of the patient; in)bursting pain in the wound; d) swelling of the wound tissues; e) frequent weak pulse. Choose the correct combination of answers:**

1. a B C.
2. b, c, d, e.
3. a B C D.
4. a, c, d, e.
5. everything is true.

**8. For emergency specific prophylaxis of tetanus, you can use:**

**Pick all the correct answers**

A. ADS-M-toxoid ;;

B. tetanus toxoid;

V. PSCHI ;;

G. PSS .;

**nine. With the development of Clostridial anaerobic infection, the following types of surgical treatment are used: a) drainageration of the abscess; b) wide dissection of the wound; c) dissection of fascial cases; d) amputation with stump dissection; e) amputation with the imposition of a tourniquet and suturing of the stump. Choose the correct combination of answers:**

1. a, c, d.
2. a, b, d.
3. b, c, d.
4. b, c, d.
5. d, d.

**10. There are the following forms of tuberculous lymphadenitis:**

- 1) serous;
- 2) infiltrative;
- 3) caseous;
- 4) purulent;
- 5) inductive.

Choose the correct combination of answers: A - 1, 3, 4; B - 2, 3, 4; B - 2.4, 5; D -1.3, 5; D- 2, 3.5.

### A TASK

On examination, the patient has a conglomerate of enlarged cervical lymph nodes, its palpation is painful. Anamnesis for pain for 2 months, the nodes gradually increased. Body temperature 37.8 ° C. The patient's husband was seen by a phthisiatrician 6 months ago.

What is your presumptive diagnosis?

### COLLOQUIUM "INFECTION"

#### OPTION # 6

**one. The forms of erysipelas are: a) erythematous; b) bullous; c) catarrhal; d) phlegmonous; e) necrotic; f) gangrenous. Choose the correct combination of answers:**

- 1) a, b, e, f.
- 2) a, b, d, e.
- 3) b, c, d, f.
- 4) c, d, e, f.
- 5) everything is true.

**2. Furuncle - purulent inflammation:**

**Pick all the correct answers**

- A. sweat gland;
- B. cellulose surrounding the hair follicle;
- B. hair follicle;
- G. sebaceous gland with surrounding fiber.

**3. To general non-microbial etiological factors for the development of purulent surgical infection include: a) the patient's age; b) diabetes mellitus; c) taking hormonal drugs; d) ineffective hemostasis; e) electrocoagulation and electrosurgery. Choose the correct combination of answers;**

- one) a, b.
- 2) a B C.
- 3) c, d, d.
- four) d, d.
- five) everything is true.

**4. In acute mastitis in the serous stage, treatment consists of:**

**Pick all the correct answers**

- A. immobilization of the mammary gland;
- B. general antibiotic therapy;
- B. retromammary novocaine blockade with antibiotics;
- G. cut;
- D. physiotherapy.

**5. Select the features of the surgical treatment of the carbuncle.**

**Pick all the correct answers**

- A. Cruciform incision;
- B. Wide dissection of tissue to healthy;
- B. Closed drainage;
- D. Minimal tissue dissection;

D. Excision of necrotic tissue;

**6. Operational aid for putrefactive infection includes: a) the widest possible dissection of the wound; b) removal of necrotic subcutaneous tissue; c) dissection of fascial cases; d) removal of devitalized muscles; e) eversion and fixation of the wound edges. Choose the correct combination of answers:**

1. a B C.
2. d, d.
3. b, d.
4. a, c, d.
5. everything is true.

**7. Local signs of an infectious wound process caused by non-clostridial anaerobic microflora include: a) gray wound tissue; b) an abundant amount of dirty gray, brown discharge; c) the absence of necrosis; d) an abundance of necrotic tissues; e) the presence of bright pink granulations; f) accumulation of gas in soft tissues. Please select the correct combination of answers:**

1. a, b, d
2. c, d, s.
3. a, b, d.
4. a, b, e, f.
5. everything is true.

**8. Select possible types of surgical treatment for anaerobic infection.**

**Pick all the correct answers**

- A. Execution of "stripe" cuts .;
- B. Wide excision of necrotic tissue in the affected area .;
- B. Amputation of the affected limb;
- D. Opening and drainage .;

**nine. When complex treatment of gas gangrene is used: a) excision of necrotic tissues; b) the widest possible dissection of tissues; c) antibacterial monotherapy; d) detoxification infusion therapy; e) hyperbaric oxygenation; f) antibacterial combined therapy; g) muscle relaxants + mechanical ventilation. Choose the correct combination of answers:**

1. a, b, d, e, f.
2. d, f, g.
3. c, d, f.
4. b, f, g.
5. everything is true.

**10. Determine the characteristic clinical manifestations of tuberculous lymphadenitis:**

- 1) the presence of a dense infiltrate with softening foci;
- 2) periadenitis;
- 3) absence of periadenitis;
- 4) high body temperature;
- 5) a symptom of crepitus in the lesion.

Choose the correct combination of answers: A - 1, 2; B - 1, 3, 4; B - 2, 4; G - 2, 5; D-2, 4.

## A TASK

A victim with shrapnel wounds of the lower extremities was delivered from the place of hostilities.

a) What specific infectious complications can we expect in such a victim? b) Ways of their emergency prevention.

## COLLOQUIUM "INFECTION"

### OPTION # 7

**one. What microorganism causes erysipelas? a) staphylococcus; b) streptococcus; c) Pseudomonas aeruginosa; d) vulgar proteus; e) peptococcus.**

one) but.

2) b.

3) in.

4) g.

5) etc.

**2. Select the features of the surgical treatment of carbuncle.**

**Pick all the correct answers**

A. Cruciform incision;

B. Wide dissection of tissue to healthy;

B. Closed drainage;

D. Minimal tissue dissection;

D. Excision of necrotic tissue;

**3. The local non-microbial etiological factors of the development of purulent surgical infection include: a) traumatic performance of the surgical aid; b) electrocoagulation and electrosurgery; c) the imposition of a large number of ligatures; d) the use of non-absorbable suture material; e) ineffective hemostasis; f) the duration of the implementation of the operational manual. Choose the correct combination of answers:**

1) a B C.

2) c, d, d.

3) d, e, f.

4) a, c, d.

5) everything is true.

**4. What is the direction of the incisions when opening a retromammary abscess?**

A. Radar;

B. Semi-oval near the areola;

B. Semi-oval at the lower edge of the gland;

D. Circular around the nipple;



**5. Select the definition of phlegmon.**

- A. Diffuse purulent inflammation of the subcutaneous fatty tissue.
- B. Diffuse inflammation of the subcutaneous fatty tissue and cellular tissue spaces.
- B. Delimited accumulation of pus in adipose tissue.
- D. Purulent inflammation of various body cavities.
- D. Purulent inflammation of the hollow organs.

**6. Tetanus treatment includes: a) anti-tetanus globulin; b) tetanus toxoid; c) anti-tetanus sycrank; d) tranquilizers and barbiturates; e) muscle relaxants; f) mechanical ventilation. Choose the correct combination of answers:**

- 1. a B C D.
- 2. c, d, e, f.
- 3. a, c, d.
- 4. b, d, f.
- 5. everything is true.

**7. According to the clinical course, the following forms of tetanus are distinguished:**

- 1. erased;
- 2. subacute;
- 3. sharp;
- 4. chronic;
- 5. lightning fast.

Choose the correct combination of answers: A - 1, 2, 4; B - 2, 3, 4; B - 3, 4, 5; G - 1, 2, 3; D - 1, 3, 4, 5.

**8. Select the causative agents of anaerobic Clostridial infection.**

**Pick all the correct answers**

- A. Cl. perfringens .;
- B. Cl. tetani .;
- B. E. coli .;
- G. Cl. oedomatiens .;
- D. Cl. septicum .;
- E. Klebsiella .;
- J. Cl. histolyticus .;

**nine. Daily therapeutic dose of tetanus toxoid:**

- A) 3000-5000 ME;
- B) 10,000-20,000 ME;

- B) 50,000 ME;
- D) 100,000-150,000 ME;
- D) 200 000 IU.

Choose the correct answer.

**10. In the presence of enlarged lymph nodes for the diagnosis of tuberculous lymphadenitis, it is important:**

- 1) contact with a patient with tuberculosis;
- 2) enlarged dense painless mobile lymphatic nodes;
- 3) conglomerate of lymph nodes welded together;
- 4) positive tuberculin tests;
- 5) the results of a puncture biopsy of the lymph node.

Choose the correct combination of answers: A - 1,2,3; B-2, 4, 5; B - 1,3,4,5; G - 1,2,4,5.

### A TASK

Patient E., 32 years old, was operated on for emergency indications for acute phlegmonous appendicitis. Appendectomy was performed. The postoperative wound was not drained. On the 3rd day, the patient's body temperature increased to 38.2 ° C, the pain in the wound area increased, despite the ongoing anesthesia. On the dressing: the skin in the area of the sutures is of normal color, but when palpating along the wound, compaction (tissue infiltration) is determined.

What complication did the patient develop? What actions will you take to clarify the diagnosis and treatment of the complication?

### COLLOQUIUM "INFECTION"

#### OPTION # 8

**one. What structural elements are affected with a boil? a) hair follicle; b) the sebaceous gland; c) muscles; d) sweat gland; e) subcutaneous tissue. Choose the correct combination of answers:**

- 1) a, b, d
- 2) a, b, d.
- 3) a, d, d.
- 4) a, c, d.
- 5) everything is true.

**2. For the treatment of erythematous erysipelas are used:**

**Pick all the correct answers**

- A. wet antiseptic dressings;
- B. antibiotics;
- B. sulfonamides;
- D. desensitizing therapy;
- D. UFO of the affected skin areas.

**3. What is typical for inflammatory changes in the composition of peripheral blood?**

**Pick all the correct answers**

- A. Leukocytosis;
- B. Anemia;
- B. Shift of the leukocyte formula to the left;
- D. Increased ESR;
- D. Lymphocytosis;

**four. What are the ways of bacterial contamination of breast tissue? a) implantation; b) intracanalicular; c) metastatic; d) hematogenous; e) lymphogenous; f) injection. Choose the correct combination of answers:**

- 1) a, c, e.
- 2) b, d, d.
- 3) a, d, d.
- 4) b, d, f.
- 5) everything is true.

**5. Select an abscess definition.**

**Pick all the correct answers**

- A. Accumulation of pus in various body cavities.
- B. Accumulation of pus in the hollow organs.
- B. Delimited accumulation of pus in various tissues.
- D. Delimited accumulation of pus in adipose tissue.

**6. According to the clinical course, the following forms of tetanus are distinguished:**

- 1. erased;
- 2. subacute;
- 3. sharp;
- 4. chronic;
- 5. Lightning fast.

Choose the correct combination of answers: A - 1, 2, 4; B - 2, 3, 4; B - 3, 4, 5; G - 1, 2, 3; D - 1, 3, 4, 5.

**7. In the complex treatment of gas gangrene use: a) excision of necrotic tissue; b) the widest possible dissection of tissues; c) antibacterial monotherapy; d) detoxification infusion therapy; e) hyperbaric oxygenation; f) antibacterial combined therapy; g) muscle relaxants + mechanical ventilation. Choose the correct combination of answers:**

- 1. a, b, d, e, f.
- 2. e, f, g.

3. c, d, f.
4. b, f, g.
5. everything is true.

**8. What does emergency tetanus prophylaxis include?**

**Pick all the correct answers**

- A. Passive immunization .;
- B. Administration of antibiotics .;
- B. Active immunization .;
- G. PHO wounds .;

**nine. Highlight the early signs of tetanus:**

1. twitching pain in the wound;
2. trismus;
3. increased local sweating;
4. muscle contraction in the wound;
5. "sardonic" smile.

Choose the correct combination of answers: A - 1, 2, 5; B - 2, 3, 5; B - 1, 4, 5; G - 1, 3, 4; D - 1, 2, 4, 5.

**10. For tuberculosis of the fingers and toes are characteristic:**

- 1) the presence of pain in the finger;
- 2) no pain in the finger;
- 3) fusiform thickening of the finger;
- 4) hyperemia and swelling of the skin;
- 5) absence of hyperemia and edema.

Choose the correct combination of answers: A - 1, 3, 5; B - 2, 3, 5; B - 2, 3, 4; D - 1, 3, 4; D - 2, 3.

**A TASK**

A 23-year-old woman, unsuccessfully for a week after the disease, was treated conservatively for the infiltrative form of mastitis. On the 8th day, the body temperature increased to 40.5°C. The pulse rate is 120 in 1 minute. The mammary gland is sharply enlarged, the skin is edematous, hyperemic, in this area there are blisters filled with hemorrhagic contents, with areas of necrosis, an infiltrate is palpable in the lower quadrants of the gland, fluctuation is determined in one of the areas. Leukocytes -  $16.4 \times 10^9 / L$ , protein and casts are determined in the urine.

What is your diagnosis? Choose a method of treatment and pain relief, give a description of the incisions in this form of mastitis.

## COLLOQUIUM "INFECTION"

### OPTION # 9

**one. What method of treatment is used for soft tissue phlegmon in the stage of purulent fusion?**

- 1) cold (hypothermia);
- 2) wideincision and drainage;
- 3) puncturefollowedbybacteriological examination;
- 4) hot compress;
- 5) novocaine chipping with antibiotics.

**2. In acute mastitis in the serous stage, treatment consists in:**

**Pick all the correct answers**

- A. immobilization of the mammary gland;
- B. general antibiotic therapy;
- B. retromammary novocaine blockade with antibiotics;
- G. cut;
- D. physiotherapy.

**3. The main signs of bacterial toxic shock: a) high body temperature; b) bradycardia; c) chills; d) drop in blood pressure; e) oliguria. Choose the correct combination of answers:**

- 1) a, c, d, e.
- 2) a, b, c, e.
- 3) b, c, d, e.
- 4) a, c, d.
- 5) everything is true

**four. The following clinical signs are characteristic of the carbuncle:**

- 1) painful infiltration;
- 2) painless infiltration;
- 3) the presence of skin necrosis and purulent pustules;
- 4) the presence of necrosis with small hemorrhagic vesicles;
- 5) an increase in regional lymph nodes.

Choose the correct combination of answers: A - 1, 3, 5; B - 2, 3, 5; B -2.4.5; D - 1, 3, 4; D - 1.4.5.

**5. Hydradenitis - purulent inflammation:**

- A. hair follicle;
- B. sebaceous gland;
- B. sweat gland;
- G. of the fiber surrounding the sweat gland.

**6. Highlight the initial signs of tetanus:**

1. twitching pain in the wound;
2. lockjaw;
3. increased local sweating;
4. muscle contraction in the wound;
5. "Sardonic" smile.

Choose the correct combination of answers: A - 1, 2, 5; B - 2, 3, 5; B - 1, 4, 5; G - 1, 3, 4; D - 1, 2, 4, 5.

**7. Operational aid for putrefactive infection includes: a) the widest possible dissection of the wound; b) removal of necrotic subcutaneous tissue; c) dissection of fascial cases; d) removal of devitalized muscles; e) eversion and fixation of the wound edges. Choose the correct combination of answers:**

1. a B C.
2. d, d.
3. b, d.
4. a, c, d.
5. everything is true.

**8. Which of the following is indicated for the treatment of anaerobic infection?**

**Pick all the correct answers**

- A. Surgical wound treatment .;
- B. Hyperbaric oxygenation .;
- B. Wound packing;
- D. Use of antigangrenous sera;
- D. Detoxification therapy .;
- E. Antibacterial therapy .;

**9. Select the causative agents of anaerobic Clostridial infection.**

**Pick all the correct answers**

- A. Cl. Perfringens .;
- B. Cl. Tetani .;
- B. E. coli .;
- G. Cl. Oedomatiens .;
- D. Cl. Septicum .;
- E. Klebsiella .;
- J. Cl. Histolyticus .;

**10. Highlight the clinical signs characteristic of the arthritic stage of tuberculous gonitis:**

- 1) the presence of joint pain;
- 2) no joint pain;
- 3) positive symptom of patella ballot;
- 4) negative symptom of patella ballot;

5) infrequent formation of purulent fistulas.

Choose the correct combination of answers: A - 1, 3, 5; B - 2, 3, 5; B - 2.4, 5; D -1.4, 5; D- 1.3, 4.

### A TASK

A woman was admitted to the surgical department a month after giving birth. Complaints of pain in the nipple and areola. Sick for a week. On examination, the mammary gland is not enlarged, not edematous. In the areola area - hyperemia, infiltration of the underlying glandular tissue is determined. Milk with an admixture of pus is released from the nipple.

Make a diagnosis. What is the name of the inflammation of the milk ducts of the mammary gland, areola? What is the treatment tactics?

### COLLOQUIUM "INFECTION"

#### OPTION No. 10

**one. In acute intramammary mastitis in the stage of infiltration, treatment is reduced to: a) incision; b) prevention of lactostasis; c) hanging the mammary gland with a scarf bandage; d) general antibiotic therapy; e) retromammary butvocaine blockade with antibiotics and proteolytic enzymes. Choose the correct combination of answers:**

- 1) but.
- 2) a, b, c.
- 3) c, d, d.
- 4) b, c, d, e.
- 5) everything is true.

#### **2. Carbuncle - purulent-necrotic inflammation:**

**Pick all the correct answers**

- A. sweat glands;
- B. hair follicle;
- B. sebaceous gland with surrounding tissue;
- D. several hair follicles;
- D. subcutaneous tissue and skin.

**3. The forms of erysipelas are: a) erythematous; b) bullous; c) catarrhal; d) phlegmonous; e) necrotic; f) gangrenous. Choose the correct combination of answers:**

- 1) a, b, e, f.
- 2) a, b, d, e.
- 3) b, c, d, f.
- 4) c, d, e, f.
- 5) everything is true.

#### **4. Select the definition of phlegmon.**

- A. Diffuse purulent inflammation of the subcutaneous fatty tissue.
- B. Diffuse inflammation of the subcutaneous fatty tissue and cellular tissue spaces.

- B. Delimited accumulation of pus in adipose tissue.
- D. Purulent inflammation of various body cavities.
- D. Purulent inflammation of the hollow organs.

**5. What are the main methods of treating a boil.**

**Pick all the correct answers**

- A. Excision of the infiltration zone.
- B. Physiotherapy.
- B. Opening of a purulent cavity.
- D. Removal of the necrotic rod.
- D. Short novocaine block in the area of inflammation.

**6. Daily therapeutic dose of tetanus toxoid:**

- A) 3000-5000 ME;
- B) 10,000-20,000 ME;
- B) 50,000 ME;
- D) 100,000-150,000 ME;
- D) 200 000 IU.

Choose the correct answer.

**7. Highlight the early signs of tetanus:**

- 1. twitching pain in the wound;
- 2. trismus;
- 3. increased local sweating;
- 4. muscle contraction in the wound;
- 5. "sardonic" smile.

Choose the correct combination of answers: A - 1, 2, 5; B - 2, 3, 5; B - 1, 4, 5; G - 1, 3, 4; D - 1, 2, 4, 5.

**8. What is characteristic of an anaerobic infection wound?**

**Pick all the correct answers**

- A. The tissues inside the wound are sharply swollen .;
- B. A large amount of purulent discharge .;
- B. Severe hyperemia of the skin around the wound .;



- D. Scanty discharge of a putrid character .;
- D. Wound tissue of dirty gray color .;
- E. Phenomena of inflammation are determined only in the tissues of the wound .;

**9. What does emergency tetanus prophylaxis include?**

**Pick all the correct answers**

- A. Passive immunization .;
- B. Administration of antibiotics .;
- B. Active immunization .;
- G. PHO wounds .;

**10. What is the main localization of tuberculosis in bone lesions:**

1. diaphysis of long tubular bones;
2. diaphysis of the phalanges of the fingers;
- 3.the body of the vertebrae;
4. flat bones;
5. epiphyses of long tubular bones.

Choose the correct combination of answers: A - 1, 3; B - 1, 2, 3; B - 2, 3, 4; G - 2, 3, 5; D - 1, 3, 5.

**A TASK**

A patient who is in the clinic for a large lacerated wound of the lower limb, received in the field, 1 day after the moment of injury, there were obvious signs of intoxication, pain in the wound, a feeling of "cutting" the bandage into the wound, the epidermis on the injured limb exfoliates in the form blisters, crepitus in soft tissues is determined.

a) What complication do you suspect in the patient? b) Name the type of pathogen. c) Give the classification of the complication.

**COLLOQUIUM "INFECTION"**

**OPTION No. 11**

**one. What are the ways of bacterial contamination of breast tissue? a) implantation; b) intracanalicular; c) metastatic; d) hematogenous; e) lymphogenous; f) injection. Choose the correct combination of answers:**

- 1) a, c, e.
- 2) b, d, d.
- 3) a, d, d.
- 4) b, d, f.
- 5) everything is true.

**2. Select the definition of phlegmon.**

- A. Diffuse purulent inflammation of the subcutaneous fatty tissue.
- B. Diffuse inflammation of the subcutaneous fatty tissue and cellular tissue spaces.
- B. Delimited accumulation of pus in adipose tissue.
- D. Purulent inflammation of various body cavities.
- D. Purulent inflammation of the hollow organs.

**3. What microorganism causes erysipelas? a) staphylococcus; b) streptococcus; c) Pseudomonas aeruginosa; d) vulgar proteus; e) peptococcus.**

one) but.

2) b.

3) in.

four) g.

five) etc.

**4. What are the main methods of treating a boil.**

**Pick all the correct answers**

- A. Excision of the infiltration zone.
- B. Physiotherapy.
- B. Opening of a purulent cavity.
- D. Removal of the necrotic rod.
- D. Short novocaine block in the area of inflammation.

**5. What is the direction of the incisions when opening an intramammary abscess?**

- A. Radar.
- B. Semi-oval near the areola.
- B. Semi-oval at the lower edge of the gland.
- D. Circular around the nipple.

**6. Select the causative agents of anaerobic Clostridial infection.**

**Pick all the correct answers**

- A. Cl. perfringens .;
- B. Cl. tetani .;

- B. E. coli .;
- G. Cl. oedomatiens .;
- D. Cl. septicum .;
- E. Klebsiella .;
- J. Cl. histolyticus .;

**7. Tetanus treatment includes: a) anti-tetanus globulin; b) tetanus toxoid; c) anti-tetanus sycrank; d) tranquilizers and barbiturates; e) muscle relaxants; f) mechanical ventilation. Choose the correct combination of answers:**

- 1. a B C D.
- 2. c, d, e, f.
- 3. a, c, d.
- 4. b, d, f.
- 5. everything is true.

**eight. Daily therapeutic dose of tetanus toxoid:**

- A) 3000-5000 ME;
- B) 10,000-20,000 ME;
- B) 50,000 ME;
- D) 100,000-150,000 ME;
- D) 200 000 IU.

Choose the correct answer.

**9. Select possible types of surgical treatment for anaerobic infection.**

**Pick all the correct answers**

- A. Execution of "stripe" cuts .;
- B. Wide excision of necrotic tissue in the affected area .;
- B. Amputation of the affected limb;
- D. Opening and drainage .;

**10. Clinical signs of bone tuberculosis:**

- 1. defeat of the diaphysis of long tubular bones;
- 2. frequent damage to nearby joints;
- 3. damage to the growth zone of the bone;
- 4. negative symptom of Aleksandrov;
- 5. muscle atrophy.

Choose the correct combination of answers: A - 1,2, 3; B -2, 3,4; B - 1,4, 5; D - 1, 3, 5; D - 2, 3, 5.

### A TASK

On the 3rd day after childbirth, a 24-year-old woman developed a feeling of heaviness and tension in the right mammary gland, which gradually increased, a tumor-like image began to be determined. It was quite mobile, with clear boundaries, bumpy surface, painless. When you press on it, milk is released freely, pumping is painless, after pumping, the woman experienced relief, body temperature 36.8 ° C. However, on the 4th-5th day, the body temperature increased to 37.2-37.4 ° C. Blood leukocytes  $7.2 \times 10^9 / l$ . The woman went to the clinic.

What process did the woman develop? What's your diagnosis? What treatment will you prescribe: is it possible conservative or is it necessary to resort to surgery?

### LESSON TOPIC "SURGICAL INFECTION"

#### OPTION No. 12

**one. What incision will be optimal when performing drainage surgery for acute purulent intramammary mastitis?**

- 1) para-areolar incision;
- 2) semi-oval cut;
- 3) radial cut;
- 4) incision along the lower transitional fold;
- 5) the incision is not needed, you can limit yourself to puncture of the abscess

**2. Select an abscess definition.**

**Pick all the correct answers**

- A. Accumulation of pus in various body cavities.
- B. Accumulation of pus in the hollow organs.
- B. Delimited accumulation of pus in various tissues.
- D. Delimited accumulation of pus in adipose tissue.

**3. What structural elements are affected with a boil? a) hair follicle; b) the sebaceous gland; c) muscles; d) sweat gland; e) subcutaneous tissue. Choose the correct combination of answers:**

- 1) a, b, d
- 2) a, b, d.
- 3) a, d, d.
- 4) a, c, d.
- 5) everything is true.

**four. Therapeutic measures in the presence of a boil are reduced to:**

- 1) rubbing the surrounding skin with 70% alcohol;
- 2) in the presence of necrotic masses - squeezing them out, followed by a bandage with a hypertonic solution;
- 3) injecting with penicillin with procaine;
- 4) taking sulfonamides inside;
- 5) local UV radiation.

Choose the correct combination of answers: A - 1, 3, 4, 5; B - 1, 2; B - 1, 2, 4, 5; G - 3, 5; D - all answers are correct.

**5. Select the clinical forms of erysipelas.**

**Pick all the correct answers**

- A. Erythematous.
- B. Bulleznaya.
- B. Necrotic.
- D. Erythematous-hemorrhagic.
- D. Erythematous-bullous.
- E. Phlegmonous.

**6. What does emergency tetanus prophylaxis include?**

**Pick all the correct answers**

- A. Passive immunization .;
- B. Administration of antibiotics .;
- B. Active immunization .;
- G. PHO wounds .;

**7. Select the causative agents of anaerobic Clostridial infection.**

**Pick all the correct answers**

- A. Cl. perfringens .;
- B. Cl. tetani .;
- B. E. coli .;
- G. Cl. oedomatiens .;
- D. Cl. septicum .;
- E. Klebsiella .;
- J. Cl. histolyticus .;

**eight. Highlight the early signs of tetanus:**

- 1) twitching pain in the wound;
- 2) lockjaw;
- 3) increased local sweating;
- 4) muscle contraction in the wound;
- 5) "Sardonic" smile.

Choose the correct combination of answers: A - 1, 2, 5; B - 2, 3, 5; B - 1, 4, 5; G - 1, 3, 4; D - 1, 2, 4, 5.

**nine. TO non-clostridial anaerobic microflora include: a) fusobacteria; b) peptostreptococci; c) streptococci; d) proteus; e) staphylococci; f) eubactors; g) peptococci. Choose the correct combination of answers:**

1. c, d, f.
2. d, e, f.
3. a, b, f, g.
4. c, d, d.
5. everythingistrue

**10. In the course of osteoarticular tuberculosis, the following phases are distinguished:**

1. general tuberculous intoxication;
2. pre-arthritis;
3. arthritis;
4. post-arthritis;
5. relapse.

Choose the correct combination of answers: A - 1, 3, 5; B - 2, 3, 4; B - 1, 2, 5; G - 1, 2, 3, 4; D - all answers are correct.

#### **A TASK**

A 30-year-old man came to the surgeon at the polyclinic with complaints of a painful lump in the upper lip with a pus prone in the center, pain in this area, headache, fever up to 39 ° C. On examination, a cone-shaped rising skin infiltrate with a diameter of 0.5 cm, in the center is the apex of the necrotic rod. The edema spreads to the eye area, as a result of which the palpebral fissure is somewhat narrowed.

Make a diagnosis. What is the tactics of a polyclinic doctor? What treatment will you use? Is surgery necessary?

#### **COLLOQUIUM "INFECTION"**

##### **OPTION No. 13**

**one. Therapeutic measures for erythematous erysipelas localized on the lower leg, are reduced to:**

- 1) imposition of wet dressings with nitrofurazone;
- 2) intramuscular administration of antibiotics;
- 3) desensitizing therapy (diphenhydramine, calcium chloride);
- 4) UV irradiation of the inflammation focus;
- 5) warm baths with potassium permanganate.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 3, 4; B - 2, 3, 5; G - 1, 2, 3, 5; D - all answers are correct.

**2. Hydradenitis - purulent inflammation:**

- A. hair follicle;
- B. sebaceous gland;

B. sweat gland;

G. of the fiber surrounding the sweat gland.

**3. What method of treatment is used for soft tissue phlegmon in the stage of purulent fusion?**

- 1) cold (hypothermia);
- 2) wideincision anddrainage;
- 3) puncturefollowedbybacteriological examination;
- 4) hot compress;
- 5) novocaine chipping with antibiotics.

**4. Select the main methods of treatment for carbuncle.**

**Pick all the correct answers**

- A. Physiotherapy.
- B. Injecting the carbuncle with antibiotics.
- B. Excision of necrotic tissues within healthy ones.
- D. Dissection of the skin and subcutaneous tissue to healthy tissues.
- D. Detoxification therapy.
- E. General antibiotic therapy.

**5. Name the factors predisposing to the development of mastitis.**

**Pick all the correct answers**

- A. Cracked nipple.
- B. Stagnant milk.
- B. Pathological childbirth.
- D. Repeated childbirth.
- E. Long-term feeding of the child.

**6. Select possible types of surgical treatment for anaerobic infection.**

**Pick all the correct answers**

- A. Execution of "stripe" cuts .;
- B. Wide excision of necrotic tissue in the affected area .;
- B. Amputation of the affected limb;
- D. Opening and drainage .;

**7. For emergency specific prophylaxis of tetanus, you can use:**

**Pick all the correct answers**

- A. ADS-M-toxoid ;;
- B. tetanus toxoid ;;
- V. PSCHI ;;
- G. PSS .;

**eight. According to the clinical course, the following forms of tetanus are distinguished:**

- 1. erased;
- 2. subacute;
- 3. sharp;
- 4. chronic;
- 5. Lightning fast.

Choose the correct combination of answers: A - 1, 2, 4; B - 2, 3, 4; B - 3, 4, 5; G - 1, 2, 3; D - 1, 3, 4, 5.

**nine. Early symptoms of anaerobic infection are: a) high body temperature; b) inappropriate behavior of the patient; in)bursting pain in the wound; d) swelling of the wound tissues; e) frequent weak pulse. Choose the correct combination of answers:**

- 1. a B C.
- 2. b, c, d, e.
- 3. a B C D.
- 4. a, c, d, e.
- 5. everything is true.

**10. Determine the early radiological signs of tuberculosis of bones and joints:**

- 1. osteoporosis;
- 2. osteosclerosis;
- 3. absence of periostitis;
- 4. the presence of a sequestral box;
- 5. dense bone sequesters;
- 6. "melting sugar" sequestration.

Choose the correct combination of answers: A - 2, 4, 5; B - 1, 4, 5; B - 1, 4, 6; G - 1, 3, 6; D - 2, 3, 6.

**A TASK**

A 70-year-old patient was admitted to the surgical department, eight days ago she was injected into the right buttock with a 25% solution of magnesium sulfate - 10.0. Pains in the area of the left buttock are worried, the temperature has risen to 39o. When viewed externally, the skin is not changed, their slight swelling is determined, palpation is painful for a considerable length, fluctuation is not determined, but locally there is a site of pronounced infiltration, sharply painful on palpation.



What disease do you suspect the patient has? Which method will you choose to confirm the diagnosis and localization of the process? If you decide on an operation, what kind of incision will you take? If you find pus, what should be done additionally to completely empty the abscess? Give a definition of the delimited and diffuse inflammation of adipose tissue.

## COLLOQUIUM "INFECTION"

### OPTION No. 14

**one. In acute mastitis in the serous stage, treatment is reduced to:**

- 1) cut;
- 2) prevention of lactostasis;
- 3) supporting the mammary gland with a scarf bandage;
- 4) general antibiotic therapy;
- 5) retromammary procaine blockade with antibiotics and proteolytic enzymes.

Choose the correct combination of answers: A - 1; B - 1, 2, 3; B - 3, 4, 5; G - 2, 3, 4, 5; D - all answers are correct.

**2. Select the clinical forms of erysipelas.**

**Pick all the correct answers**

- A. Erythematous.
- B. Bulleznaya.
- B. Necrotic.
- D. Erythematous-hemorrhagic.
- D. Erythematous-bullous.
- E. Phlegmonous.

**3. What should be done with phlegmon of soft tissues in the softening stage?**

- A) Cold (hypothermia).
- B) Wide incision and drainage.
- B) Puncture followed by bacteriological examination.
- D) Hot compress.
- D) Procaine chipping with antibiotics.

Choose the correct answer.

**4. Hydradenitis - purulent inflammation:**

- A. hair follicle;
- B. sebaceous gland;
- B. sweat gland;

G. of the fiber surrounding the sweat gland.

**5. Select the main methods of treatment for carbuncle.**

**Pick all the correct answers**

- A. Physiotherapy.
- B. Injecting the carbuncle with antibiotics.
- B. Excision of necrotic tissues within healthy ones.
- D. Dissection of the skin and subcutaneous tissue to healthy tissues.
- D. Detoxification therapy.
- E. General antibiotic therapy.

**6. For emergency specific prophylaxis of tetanus, you can use:**

**Pick all the correct answers**

- A. ADS-M-toxoid ;;
- B. tetanus toxoid ;;
- V. PSCHI ;;
- G. PSS .;

**7. Which of the following is indicated for the treatment of anaerobic infection?**

**Pick all the correct answers**

- A. Surgical wound treatment .;
- B. Hyperbaric oxygenation .;
- B. Wound packing;
- D. Use of antigangrenous sera;
- D. Detoxification therapy .;
- E. Antibacterial therapy .;

**eight. Local signs of an infectious wound process caused by non-clostridial anaerobic microflora include: a) gray wound tissue; b) an abundant amount of dirty gray, brown discharge; c) the absence of necrosis; d) an abundance of necrotic tissues; e) the presence of bright pink granulations; f) accumulation of gas in soft tissues. Please select the correct combination of answers:**

- 1. a, b, d, f.
- 2. c, d, s.
- 3. a, b, d.
- 4. a, b, e, f.
- 5. everything is true.

nine. With the development of Clostridial anaerobic infection, the following types of surgical treatment are used: a) drainageration of the abscess; b) wide dissection of the wound; c) dissection of fascial cases; d) amputation with stump dissection; e) amputation with the imposition of a tourniquet and suturing of the stump. Choose the correct combination of answers:

1. a, c, d.
2. a, b, d.
3. b, c, d.
4. b, c, d.
5. d, d.

10. For tuberculosis of the fingers and toes are characteristic:

1. the presence of pain in the finger;
2. no pain in the finger;
3. spindle-shaped thickening of the finger;
4. hyperemia and edema of the skin;
5. absence of hyperemia and edema.

Choose the correct combination of answers: A - 1, 3, 5; B - 2, 3, 5; B - 2, 3.4; D - 1, 3.4; D - 2, 3.

#### A TASK

A patient who is in the clinic for a large lacerated wound of the lower limb, received in the field, 1 day after the moment of injury, there were obvious signs of intoxication, pain in the wound, a feeling of "cutting" the bandage into the wound, the epidermis on the injured limb exfoliates in the form blisters, crepitus in soft tissues is determined.

a) What complication do you suspect in the patient? b) Name the type of pathogen. c) Give the classification of the complication.

### COLLOQUIUM "BLOOD DISORDER, ONCOLOGY"

#### OPTION # 1

one. What pathological processes are important in the development of trophic ulcers? a) chronic disorders of blood and lymph circulation; b) traumatic effects; c) diseases of the nervous system; d) metabolic disorders; e) systemic diseases; f) infectious diseases; g) tumors. Choose the correct combination of answers:

- 1) a, b, e, f.
- 2) b, d, f, g.
- 3) c, d, d.
- 4) d, f, g.
- 5) everything is true.

2. Acute deep vein thrombosis is characterized by:

- 1) sharp pain in the affected limb;
- 2) pallor or cyanosis of the skin;
- 3) high body temperature;
- 4) hyperemia along the saphenous vein;
- 5) sharp swelling of the limb.

Choose the correct combination of answers: A - 1,4; B- 1,2, 5; B- 1,3,5; G-2,4; D-3,5.

**3. What is characteristic of dry gangrene?**

**Pick all the correct answers**

- A. Tissue edema;
- B. Discoloration of the skin;
- B. Intoxication .;
- D. The presence of a demarcation line .;
- D. Mummification of necrotic tissue .;
- E. Putrid odor .;

**4. The symptom of intermittent claudication is characteristic for:**

- A. obliterating atherosclerosis ;;
- B. post-thrombotic disease;
- B. diabetic foot syndrome ;;
- G. varicose veins;

**5. III degree of chronic ischemia corresponds to the appearance of a symptom of intermittent claudication:**

- A. after walking less than 50 m and at rest ;;
- B. after walking a distance of about 200 m;;
- B. after walking a distance of about 500 m.;

**6. With gastroscopy, you can: a) determine the localization of the tumor; b) evaluate the surface of the tumor; c) establish the stage of the tumor process; d) assess the state of regional lymph nodes; e) assess the presence or absence of ulceration. Choose the correct combination of answers:**

one) a B C.

2) in, g.

3) a, d, d.

four) in, d.

five) a, b, d.

**7. What is considered a prerequisite for the occurrence of implantation metastases?**

- A. Localization of the tumor in the abdominal cavity;
- B. Abundant blood supply to the tissues surrounding the tumor;

- B. Germination of the tumor outside the organ;
- D. Germination of the tumor beyond the serous membrane covering the organ .;

**8. The syndrome of small signs includes:**

**Pick all the correct answers**

- A. weight loss and decreased appetite ;;
- B. unexplained increase in body temperature;
- B. the appearance of blood impurities in the stool ;;
- G. weakness and fatigue ;;
- D. anemia ;;
- E. leukocytosis;

**nine. During the operation, the patient was found to have a tumor invading all layers of the stomach wall, regional metastases were revealed, and there were no distant metastases. The tumor is mobile. What is the stage of the process?**

- A) I.
- B) II.
- C) III.
- D) IV.
- E) The malignancy of the tumor is doubtful.

Choose the correct answer.

**10. What are the palliative operations for malignant tumors:**

- one) removal of metastases along with the tumor;
- 2) imposition of internal bypass anastomoses in obstruction of the lumen of the organ;
- 3) stopping bleeding from the tumor;
- four) removal of the primary tumor leaving unallocated metastases;
- five) superradical operations.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 3, 4; B - 2, 3, 4, 5; G - 1, 4; D - 2, 3, 5.

**A TASK**

A young man came to the appointment who complains of pain in his right foot, an increase in body temperature up to 37.5 ° C. When viewed on the dorsum of the II-III toes of the right foot, there are abrasions measuring 1.0x0.8 cm with a coating of fibrin, the skin around the wounds is hyperemic. The dorsum of the right foot is edematous, there is hyperemia in the form of longitudinal stripes on the back of the foot and the medial surface of the lower leg up to

its middle third. In the groin area, a moderately painful densely elastic consistency with smooth edges is determined by a knot measuring 2.5x2 cm. The knot is mobile, the skin above it is not changed.

What is your diagnosis and treatment tactics?

## COLLOQUIUM "BLOOD DISORDER, ONCOLOGY"

### OPTION # 2

**one. Artificial fistulas are: a) interorgan fistulas, aroseas a result of injury; b) connection of hollow organs with each other for therapeutic purposes; c) interorgan fistulas resulting from inflammation; d) interorgan fistula arising as a result of the cicatricial process; e) fistulas resulting from bone injury; f) creating a message of the hollow organ with the external environment for therapeutic purposes. Choose the correct combination of answers:**

- 1) a, d.
- 2) b, f.
- 3) in, g.
- 4) c, e.
- 5) b, d.

**2. What are the causes of acute venous insufficiency of the lower limbs:**

- 1) thrombosis of the iliac veins;
- 2) deep vein thrombophlebitis;
- 3) obesity;
- 4) phlebeurysm;
- 5) traumatic vein injuries.

Choose the correct combination of answers: A - 1, 3, 5; B - 1, 2, 4; B - 2, 3 4; G - 2, 3, 5; D - 1, 2, 5.

**3. Trophic ulcers of the lower extremities against the background of arterial insufficiency are more often localized:**

Pick all the correct answers

- A. in the distal parts of the fingers ;;
- B. in the area of the medial ankle ;;
- V. in the heel area ;;
- G. in any area of a segment with impaired arterial circulation .;

**4. What is characteristic of obliterating endarteritis?**

Pick all the correct answers

- A. Predominant lesion of arteries of medium and small calibers .;
- B. Over 40 years of age .;
- B. Damage to arteries in different regions;
- D. The defeat of the entire vascular wall for a considerable extent .;
- D. Can be eliminated by bypass;

**5. Surgical treatment of diabetic foot syndrome consists in:**

- A. performing high limb amputation;
- B. neurectomy ;;
- B. amputation of the foot;

**6. A malignant tumor is distinguished by:**

- 1) expansive growth;
- 2) metastasis to lymph nodes and organs;
- 3) tendency to relapse;
- 4) infiltrating growth;
- 5) the presence of a capsule.

Choose the correct combination of answers: A - 1, 2, 3; B - 3, 4, 5; B - 2, 3, 4; G - 2, 3, 5; D - 2, 3, 4, 5.

**7. To what stage according to the clinical classification does the following tumor belong: the tumor is large, does not spread beyond the organ, single metastases to regional lymph nodes are possible?**

- A. I stage .;
- B. Stage II .;
- B. stage III .;
- D. stage IV .;

**8. Diagnosis is considered timely if a tumor is detected:**

- A. stage I or stage cancer in situ ;;
- B. at stage III-IV, when radical treatment in most patients is impossible ;;
- V. at stage II – III, radical treatment is possible in most patients ;;
- G. at I, II and III stages, in which a complete cure of patients is always possible .;

**nine. Antitumor treatment includes:**

- 1) gentle, non-traumatic removal of the tumor;
- 2) removal of visible metastases;
- 3) the use of an electric knife or laser scalpel;
- 4) ligation of tubular organs above and below the tumor;
- 5) treating the wound with alcohol.

Choose the correct combination of answers: A - 1.2; B - 1.3; B-3.5; D - 1.4, 5; D-2, 4.

**10. Which of the following categories is classified as a risk group for cancer?**

**Pick all the correct answers**

- A. Persons, by the type of activity associated with exposure to carcinogenic factors;
- B. Nursing staff of oncological clinics;

B. Persons with so-called precancerous diseases;

D. Persons over 35 years old .;

### A TASK

Patient M., 62 years old, suffering from varicose veins, 4 days ago, felt pulling pains along the dilated vein of the lower third of the thigh, compaction in this part of the vein. After 2 days, the seal spread to the upper border of the inner surface of the thigh, hyperemia and swelling appeared. On examination, a dense painful band on the inner surface of the thigh, reaching the upper third, skin hyperemia, swelling. There is no fluctuation. Body temperature 37.6 ° C.

What is your diagnosis and treatment tactics?

## COLLOQUIUM "BLOOD DISORDER, ONCOLOGY"

### OPTION # 3

**one. Bedsores are most often formed on: a) the sacrum; b) shoulder blades; c) the anterior abdominal wall; d) the back of the head; e) elbows; e) the front of the thighs; g) a large spit; h) thumb. Choose the correct combination of answers:**

- 1) a, b, d, e. f.
- 2) b, d, f, h.
- 3) a, c, e, f.
- 4) e, h.
- 5) everything is true.

**2. Prevention of deep vein thrombosis after surgery includes:**

- 1) antibiotic therapy;
- 2) bandaging a limb before and after surgery;
- 3) prolonged bed rest after surgery;
- 4) early activation of patients after surgery;
- 5) the use of vasodilators.

Choose the correct combination of answers: A - 1.2; B-4, 5; B-2, 3.5; G-2.4; D- 1.3, 5.

**3. Trophic ulcers are formed when:**

**Pick all the correct answers**

A. insufficiency of venous circulation ;;

B. avitaminosis ;;

B. insufficiency of arterial circulation ;;

G. damage to the spinal cord ;;

D. damage to peripheral nerves ;;

E. diabetes mellitus;



**4. Post-thrombotic disease develops due to:**

- A. thrombosis of the great arteries ;;
- B. deep vein thrombosis ;;
- B. disseminated intravascular coagulation syndrome ;;
- G. thrombophlebitis of superficial veins;

**5. With obliterating endarteritis, the following symptoms are revealed:**

- 1) creeping sensation;
- 2) a feeling of chilliness in the foot;
- 3) hair loss on the lower leg of the affected limb;
- 4) intermittent claudication;
- 5) thickening of the nail plates.

Choose the correct combination of answers: A - 1, 2, 3; B - 3, 4, 5; B - 1, 3; G - 2, 4; D - all answers are correct.

**6. With gastroscopy, you can establish:**

- 1) localization of the tumor;
- 2) the color of the tumor;
- 3) the stage of the tumor process;
- 4) condition of regional lymph nodes;
- 5) the presence or absence of tumor decay.

Choose the correct combination of answers: A - 1, 2, 3; B - 1, 3, 4; B - 1, 4, 5; G - 2, 3, 4; D - 1, 2, 5.

**7. The main syndromes in the diagnosis of malignant tumors include:**

**Pick all the correct answers**

- A. plus-tissue syndrome ;;
- B. syndrome of pathological discharge ;;
- B. malabsorption syndrome ;;
- G. syndrome of organ dysfunctions ;;
- D. syndrome of small signs .;

**8. Indicate the main methods of treatment of benign tumors.**

- A. Surgical .;
- B. Chemotherapy .;
- V. Luchevea;
- G. Combined .;

**nine. When can a patient be considered cured after a malignant tumor has been removed?**

- A) If the tumor was small and completely removed.
- B) If no metastases are detected during the operation.
- B) If there are no signs of relapse within 5 years after surgery discovered.
- D) If the operation was performed in compliance with all oncological rules.
- D) All of the above is true.

Choose the correct answer.

**10. Ablastic includes all activities, except:**

**Pick all the correct answers**

- A. making incisions only within the bounds of obviously unaffected tissues ;;
- B. the need to avoid mechanical injury to the tumor tissue;
- C. the need to bandage the venous vessels extending from the formation as soon as possible ;;
- D. the use of pharmacological preparations ;;
- D. bandaging a hollow organ with a ribbon above and below the tumor (to prevent cell migration along the lumen);

**A TASK**

A 67-year-old patient underwent resection and prosthetics of the left hip joint with a metal prosthesis. On the 4th day, bursting pains and rapidly progressive edema of the left lower extremity appeared, spreading to the inguinal fold. On examination, the skin is shiny, tense, "marble" in color. Circumference of the left thigh and lower leg by 10 and 6 cm more than the circumference of the right thigh and lower leg, respectively. Toes of the left foot are pale, movement in them is limited. The pulsation on the posterior tibial artery on the left is weakened. Blood test: leukocytes  $14 \times 10^9 / l$ , shift of the leukocyte formula to the left, ESR 36 mm / h, prothrombin 110%, the duration of bleeding is reduced.

What is your diagnosis and treatment strategy?

**COLLOQUIUM "BLOOD DISORDER, ONCOLOGY"**

**OPTION # 4**

**one. The formation of bedsores is facilitated by: a) compression of tissues with a plaster cast; b) long-term presence of the endotracheal tube in the trachea; c) long-term stay of the drainage in the abdominal cavity; d) compression of tissues during prolonged supine position of the patient; e) violation of innervation in spinal cord injury; f) prolonged pressure of the stone on the wall of the gallbladder. Choose the correct combination of answers:**

- 1) a B C.
- 2) b, d, f.
- 3) c, d, d.
- 4) c, d, e.
- 5) everything is true.

**2. Select the causes of gangrene:**

- 1) embolism of the great vessels;
- 2) injury to the arteries;
- 3) arterial thrombosis;
- 4) frostbite;
- 5) burn.

Choose the correct combination of answers: A - 1, 2; B - 1, 3, 4; B - 2, 4, 5; G - 1, 4, 5; D - all answers are correct.

**3. What is characteristic of a trophic ulcer in case of arterial insufficiency?**

**Pick all the correct answers**

- A. The presence of rough edges;
- B. Fluctuation .;
- B. Plaque of fibrin in the bottom;
- D. Purulent discharge .;
- D. Profuse bleeding .;

**4. Compression therapy is considered:**

- A. the main method of treating arterial insufficiency ;;
- B. the main method of treatment of venous insufficiency ;;
- V. one of the methods of conservative therapy for arterial insufficiency ;;
- G. one of the methods of conservative therapy for venous insufficiency ;;
- D. the method of choice in the treatment of diabetic foot syndrome;

**five. List the methods for determining the functional ability of the venous valve apparatus:**

- 1) finger and rope tests;
- 2) rheovasography;
- 3) dopplerography;
- 4) infrared thermography;
- 5) contrast phlebography.

Choose the correct combination of answers:

A - 1,2,3; B - 1,3,5; B- 1, 2, 3, 5; G - 2, 3, 4; D - 2, 3, 4, 5.

**6. Choose an absolute indication for the removal of a benign tumor**

- 1) compression of an organ by a tumor that disrupts its functions;
- 2) permanent injury to a superficially located tumor with clothing or shoes;
- 3) acceleration of tumor growth;
- 4) long-term existence of the tumor;
- 5) suspicion of malignant transformation.

Choose the correct combination of answers: A - 1, 2, 3, 4; B - 1, 3, 4, 5; B - 1, 2, 3, 5; G - 2, 3, 4, 5; D - all answers are correct.

**7. An early diagnosis is considered if a tumor is detected:**

- A. stage I or stage cancer in situ ;;
- B. at stage II-III, radical treatment is possible in most patients ;;
- B. at III-IV stage, when radical treatment in most patients is impossible ;;
- G. at I, II and III stages, in which a complete cure of patients is always possible .;

**8. Indicate the main methods of treating malignant tumors.**

**Pick all the correct answers**

- A. Surgical .;
- B. Chemotherapy .;
- B. Palliative .;
- G. Lucheva .;
- D. Combined .;

**nine. The concept of "ablastic" includes:**

- 1) treatment of the surgical wound with alcohol;
- 2) preoperative radiotherapy;
- 3) frequent change of tools and linen;
- 4) preliminary ligation of blood vessels;
- 5) removal of a tumor within healthy tissues.

Choose the correct combination of answers: A - 1, 2; B - 2, 3; B - 1, 4; G - 3, 5; D - 4, 5.

**10. Chemotherapy can be used alone if:**

- A. early stages of malignant tumors ;;
- B. neoplastic diseases of the blood ;;
- V. never apply ;;
- G. tumors of the stomach and colon;

**A TASK**

Patient T., 45 years old, suffers from varicose veins of the lower extremities. 2 days ago, pain and induration along the vein appeared below the inguinal fold. Objectively: the body temperature is 37.3 ° C, a dense painful cord is determined along the great saphenous vein 3-4 cm distal to the inguinal fold. There is no limb edema, the skin is of normal color.

What is your diagnosis and treatment strategy?

## COLLOQUIUM "BLOOD DISORDER, ONCOLOGY"

### OPTION # 5

**one. When examining patients with fistulas, the following instrumental research methods are used: a) X-ray contrast examination of organs; b) fistulography; c) radioisotope scanning; d) sounding; e) endoscopic examination of organs; f) enzyme immunoassay; g) fistuloscopy. Choose the correct combination of answers:**

- 1) a, b, d, e, g.
- 2) b, d, f.
- 3) a B C D E.
- 4) c, d, e, f.
- 5) everything is true.

**2. Dry gangrene is characterized by:**

- 1) the development of a putrid infection;
- 2) the presence of a demarcation line;
- 3) severe intoxication;
- 4) lack of intoxication;
- 5) mummification of necrotic tissue.

Choose the correct combination of answers: A - 1.2; B - 2.3; B - 1.3; G - 1.4; D - 2, 4, 5.

**3. The development of gangrene is possible in the following organs.**

**Pick all the correct answers**

- A. Lung .;
- B. Extremity .;
- B. Small intestine .;
- D. Liver .;
- D. The mammary gland .;

**four. Methods for the treatment of purulent thrombophlebitis:**

- 1) anticoagulants;
- 2) antibiotics;
- 3) shunting;
- 4) installation of an umbrella probe into the lumen of a vein;
- 5) ligation and removal of the vein.

Choose the correct combination of answers: A - 1, 2, 5; B - 1, 4; B - 2, 3, 5; G - 2, 5; D - 1, 2.

**five. What drugs are considered pathogenetically justified for the treatment of patients with obliterating endarteritis?**

- 1) Desensitizing drugs.
- 2) Glucocorticoids.
- 3) Vasodilators.
- 4) Disaggregants.
- 5) Antibiotics

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 3.4; B - 2.4; G - 1, 3.4; D - 2, 3.

**6. During the operation, the patient was found to have a tumor invading all layers of the stomach wall, regional metastases were revealed, and there were no distant metastases. The tumor is mobile. What is the stage of the process?**

- A) I.
- B) II.
- C) III.
- D) IV.
- E) The malignancy of the tumor is doubtful.

Choose the correct answer.

**7. Which of the following categories is classified as a risk group for cancer?**

Pick all the correct answers

- A. Persons, by the type of activity associated with exposure to carcinogenic factors;
- B. Nursing staff of oncological clinics;
- B. Persons with so-called precancerous diseases;
- D. Persons over 35 years old .;

**8. Ablastic includes the following activities:**

**Pick all the correct answers**

- A. removal of the tumor in a single block with fiber and regional lymph nodes ;;
- B. obligatory histological examination of the removed organ ;;
- B. before manipulating the tumor, limiting the wound with napkins ;;
- D. after tumor removal, change (treatment) of instruments and gloves, limiting napkins;

**9. What is called a tumor?**

- A. Pathological formation, independently developing in the cavities of organs and tissues, not distinguished by autonomous growth, polymorphism and atypia of cells;
- B. Pathological formation, independently developing in organs and tissues, characterized by autonomous growth, polymorphism and atypia of cells .;
- C. Pathological formation, characterized by autonomous growth, without polymorphism and atypia of cells;
- D. Pathological formation, prone to metastasis and invasive growth;

**10. Polymorphism of tumor cells is called:**

- A. morphological differences between tumor cells and tissue cells from which it developed ;;
- B. the difference in morphological criteria of tumor cells from its metastases ;;

C. presence in the structure of the tumor cells of heterogeneous morphological characteristics;

### A TASK

After surgery on the stomach, a 58-year-old patient on the 4th day suddenly developed sharp pains in the right lower extremity, cold extremity, palpation of the lower leg is cold, there is no pulsation on the arteries of the foot and popliteal artery with preserved pulsation on the femoral artery, pain sensitivity on the lower leg and the foot is reduced. What is your diagnosis and action?

## COLLOQUIUM "BLOOD DISORDER, ONCOLOGY"

### OPTION # 6

#### 1. With obliterating endarteritis, the following symptoms are revealed:

1. creeping sensation;
2. a feeling of chilliness in the foot;
3. hair loss on the lower leg of the affected limb;
4. intermittent claudication;
5. thickening of the nail plates.

Choose the correct combination of answers: A - 1, 2, 3; B - 3, 4, 5; B - 1, 3; G - 2, 4; D - all answers are correct.

#### 2. Clinical signs of wet limb gangrene:

- 1) swelling of tissues, discoloration of the skin;
- 2) intoxication;
- 3) delimitation of necrotic areas;
- 4) putrid smell;
- 5) no demarcation line.

Choose the correct combination of answers: A - 1, 2; B - 1, 3, 4, 5; B - 2, 4; G - 1, 2, 4, 5; D - 2, 3.

#### 3. By etiology, necrosis is divided into:

##### Pick all the correct answers

- A. straight ;;
- B. indirect ;;
- B. primary ;;
- G. indirect ;;
- D. secondary .;

#### four. Which of the following is a danger in terms of the development of embolism?

- 1) Parietal heart thrombus.
- 2) Thrombus of the femoral artery.
- 3) Phlebitis of the ulnar vein.
- 4) Widespread thrombus of the leg and thigh veins.
- 5) Thrombus of the saphenofemoral anastomosis.

Choose the correct combination of answers: A - 1,4, 5; B -2, 3,4; B -2,3; D - 3, 5; D - 3,4.

**five. Acute deep vein thrombosis is characterized by:**

1. sharp pain in the affected limb;
2. pallor or cyanosis of the skin;
3. high body temperature;
4. hyperemia along the saphenous vein;
5. sharp edema of the limb.

Choose the correct combination of answers: A - 1,4; B- 1,2, 5; B- 1,3,5; G-2,4; D-3,5.

**6. The concept of "ablastic" includes:**

1. treatment of the surgical wound with alcohol;
2. preoperative radiotherapy;
3. frequent change of tools and linen;
4. preliminary ligation of blood vessels;
5. removal of the tumor within healthy tissues.

Choose the correct combination of answers: A - 1, 2; B - 2, 3; B - 1, 4; G - 3, 5; D - 4, 5.

**7. Indicate the basic principles of the surgical treatment of benign tumors.**

**Pick all the correct answers**

- A. Removal of the tumor within healthy tissue .;
- B. Removal along with the capsule, if any .;
- B. Removal of regional lymph nodes;
- D. Wide excision of the tumor with the surrounding tissues, retreating 5–8 cm from the visible border of the lesion .;

**8. What is the principle of zoning?**

- A. Removal of the entire tumor, as well as regional lymph nodes;
- B. The incision is performed only in the area not affected by the tumor process .;
- C. Perform the removal of the entire anatomical zone in which the tumor is located .;

**9. Currently, the following factors are included in the theory of the origin of tumors:**

**Pick all the correct answers**

- A. mechanical ;;
- B. chemical ;;



- B. psychological ;;
- G. physical ;;
- D. biological ;;
- E. genetic ;;
- G. the state of the immune and humoral systems .;

**10. Malignant tumors are characterized by:**

**Pick all the correct answers**

- A. severe atypia and polymorphism of cells ;;
- B. absence or minimal differences of tumor cells from cells of maternal tissue ;;
- B. expansive growth without invasion ;;
- D. infiltrating growth ;;
- D. rapid growth, the ability to metastasize .;

**A TASK**

A 76-year-old man came to you with complaints of persistent pain in the calf muscles, aggravated by walking, discoloration of 1 toe of the right foot. The feet are pale, the right foot is colder than the left, the pulsation on the arteries of the foot is not detected.

What is your diagnosis and action?

**COLLOQUIUM "BLOOD DISORDER, ONCOLOGY"**

**OPTION # 7**

**one. Select the characteristic signs of thromboembolism of the limb arteries:**

- 1) a gradual increase in pain;
- 2) sudden onset of acute pain;
- 3) cyanosis of the skin;
- 4) pallor of the skin;
- 5) coldness of the limb.

Choose the correct combination of answers:

A - 1,2, 3; B-2, 3,4; B-4, 5; D-2, 4, 5; D- 1.3.5.

**2. What are the optimal measures in the treatment of patients with wet gangrene of the limb in the presence of severe intoxication and high body temperature:**

- 1) necrectomy;
- 2) dressings with antiseptics;
- 3) intra-arterial administration of antibiotics;
- 4) chamber oxygen therapy;

5) limb amputation.

Choose the correct combination of answers: A - 1, 2; B - 2, 3; B - 1, 2, 3, 4; G - 3, 4; D - 5.

**3. Circulatory necrosis is associated with:**

**Pick all the correct answers**

- A. circulatory disorders ;;
- B. violation of lymph circulation ;;
- B. violation of innervation ;;
- G. the formation of circular trophic ulcers;

**four. Select the causes of gangrene:**

- 1. embolism of the great vessels;
- 2. injury of the arteries;
- 3. arterial thrombosis;
- 4. frostbite;
- 5. burn.

Choose the correct combination of answers: A - 1, 2; B - 1, 3, 4; B - 2, 4, 5; G - 1, 4, 5; D - all answers are correct.

**five. List the causes of lymph circulation disorder:**

- 1) congenital underdevelopment of the lymphatic vessels;
- 2) chronic diseases of the lymph nodes (tuberculosis, syphilis);
- 3) compression of blood vessels by a tumor, scarring;
- four) obliterating atherosclerosis.

Choose the correct combination of answers: A - 1,2; B - 1,2, 3; B -2, 3,4; D -3,4; D- 1,3,4.

**6. Antitumor treatment includes:**

- 1. gent, non-traumatic removal of the tumor;
- 2. removal of visible metastases;
- 3. the use of an electric knife or a laser scalpel;
- 4. ligation of tubular organs above and below the tumor;
- 5. Treatment of the wound with alcohol.

Choose the correct combination of answers: A - 1,2; B - 1,3; B-3,5; D - 1,4, 5; D-2, 4.

**7. When assessing the cure from a malignant tumor, the following time period is taken as a basis:**

- A. 3 years ;;
- B. 2 years ;;
- B. 5 years ;;
- G. 15 years old ;;
- D. 10 years;

**8. The fastest and most aggressive growth is possessed by:**

- A. highly differentiated tumors ;;
- B. undifferentiated tumors ;;
- B. poorly differentiated tumors;

**9. What is considered a prerequisite for the occurrence of implantation metastases?**

- A. Localization of the tumor in the abdominal cavity;
- B. Abundant blood supply to the tissues surrounding the tumor;
- B. Germination of the tumor outside the organ;
- D. Germination of the tumor beyond the serous membrane covering the organ .;

**10. True relapse is characterized by:**

**Pick all the correct answers**

- A. re-development of the tumor in the same place after its complete removal by surgery or other means ;;
- B. re-development of the tumor after its incomplete removal ;;
- C. re-formation of a tumor in another place after complete removal of the previous one, the morphological structure is similar ;;
- G. only malignant tumors recur .;

**A TASK**

Patient M., 52 years old, complains of a feeling of heaviness in the legs during prolonged standing, bursting pains, the appearance of edema of the feet and lower legs by the end of the day, which completely disappear in a horizontal position, acute pain in the area of the inner surface of the right ankle. From the anamnesis it was found that the patient had been suffering from varicose veins of the lower extremities for 20 years. On examination, there is a pronounced expansion of the veins on the right and moderate on the left lower extremities. The skin in the area of the medial ankle on the right is thinned, compacted, hyper-pigmented. There is a moderate edema of the lower third of the lower leg and foot on the right. In the center of hyperpigmentation, an oval-shaped wound is determined, up to 5 mm, up to 1.5 cm... The edges are dense, bluish, inactive. The bottom is covered with necrotic tissues, fibrin, discharge is serous-purulent, scanty, palpation is not painful.

- a) Establish the correct diagnosis, b) Which method of treatment (surgical or conservative) is more pathogenetically justified? c) Offer topical treatment.

## COLLOQUIUM "BLOOD DISORDER, ONCOLOGY"

### OPTION # 8

**one. Postthrombophlebitis syndrome of the lower extremities is more common consequence:**

- 1) superficial vein thrombosis;
- 2) expansion of the saphenous veins;
- 3) thrombosis of the femoral artery;
- 4) deep vein thrombosis of the lower extremities.

Choose the correct combination of answers: A - 1, 2; B - 2; B -3, 4; D - 4.

**2. List the causes of trophic ulcers:**

- 1) violation of venous circulation;
- 2) violation of arterial circulation;
- 3) violation of lymph flow;
- 4) damage to the spinal cord, nerves;
- 5) diabetes.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 3, 4; B - 1, 2, 3, 4; G - 1, 2, 3, 5; D - all answers are correct.

**3. Edema and cyanosis of the skin are characteristic of necrosis caused by:**

- A. arterial obstruction ;;
- B. violation of venous outflow ;;
- V. violation of microcirculation;

**four. Prevention of deep vein thrombosis after surgery includes:**

1. antibiotic therapy;
2. bandaging a limb before and after the operation;
3. prolonged bed rest after surgery;
4. early activation of patients after surgery;
5. the use of vasodilators.

Choose the correct combination of answers: A - 1.2; B-4, 5; B-2, 3.5; G-2.4; D- 1.3, 5.

**five. Dry gangrene is characterized by:**

1. the development of putrefactive infection;
2. the presence of a demarcation line;
3. severe intoxication;
4. absence of intoxication;
5. mummification of necrotic tissue.

Choose the correct combination of answers: A - 1.2; B -2.3; B - 1.3; G - 1.4; D- 2, 4, 5.

**6. When can a patient be considered cured after a malignant tumor has been removed?**

- A) If the tumor was small and completely removed.
- B) If no metastases are detected during the operation.
- B) If there are no signs of relapse within 5 years after surgery discovered.
- D) If the operation was performed in compliance with all oncological rules.
- D) All of the above is true.

Choose the correct answer.

**7. Ablastic includes all activities, except:**

**Pick all the correct answers**

- A. making incisions only within the bounds of obviously unaffected tissues ;;
- B. the need to avoid mechanical injury to the tumor tissue;
- C. the need to bandage the venous vessels extending from the formation as soon as possible ;;
- D. the use of pharmacological preparations ;;
- D. bandaging a hollow organ with a ribbon above and below the tumor (to prevent cell migration along the lumen);

**8. To assess the effectiveness of treatment of a malignant tumor, the following criteria can be used:**

Pick all the correct answers

- A. the immediate result of the treatment ;;
- B. 5-year survival rate ;;
- B. duration of remission ;;
- G. reliable absence of tumor growth in the first 3 years .;

**9. According to the clinical classification, to what stage does the following tumor belong: the tumor is large, does not extend beyond the organ, single metastases to regional lymph nodes are possible?**

- A. I stage .;
- B. Stage II .;
- B. stage III .;
- D. stage IV .;

**10. Specify the main ways of metastasis.**

**Pick all the correct answers**

- A. Lymphogenous .;
- B. Contact .;
- B. Airborne;
- G. Hematogenous .;
- D. Implantation .;

### A TASK

Patient T., 63 years old, was admitted to the surgical department with complaints of severe pain in the calf muscles and feet when walking, which makes the patient stop through 20 m, pain in the right foot at rest, worse at night, cold feet. On examination: the skin of the lower extremities, especially the feet, is dry, pale, the nails are thickened, brittle, the muscles are atrophic, the hair is absent, the feet are cool to the touch, especially the right one. The right foot with cyanotic spots, edematous, cyanotic, on the plantar surface of the 1st toe, a sharply painful, round wound with a diameter 1 cm, with dense, uneven edges, covered with necrotic masses of dark brown color, flaccid granulations. The discharge is scanty, serous-hemorrhagic, with an unpleasant putrid odor. Ripple on the femoral, popliteal arteries, leg and foot arteries on both sides is not detected.

- a) Establish a diagnosis, b) List special research methods, c) List methods of complex treatment.

### COLLOQUIUM "BLOOD DISORDER, ONCOLOGY"

#### OPTION # 9

**one. List the methods for determining the functional ability of the venous valve apparatus:**

1. finger and harness tests;
2. rheovasography;
3. dopplerography;
4. infrared thermography;
5. contrast phlebography.

Choose the correct combination of answers:

A - 1,2,3; B - 1,3,5; B- 1, 2, 3, 5; G - 2, 3, 4; D - 2, 3, 4, 5.

**2. What is the method of treatment for lipoid intestinal fistula:**

- A) conservative treatment;
- B) filling the fistula;
- B) diathermocoagulation of the fistula;
- D) resection of a section of the intestine with a fistula;
- E) ligation of the fistulous canal.

Choose the correct answer.

**3. Select the stages of acute ischemia according to V.S. Savelyev.**

**Pick all the correct answers**

- A. Functional disorders .;
- B. Organic disorders .;
- B. Necrotic .;
- D. Trophic ulcer;
- D. Maceration .;

**four. What are the causes of acute venous insufficiency of the lower limbs:**

- 1. thrombosis of the iliac veins;
- 2. deep vein thrombophlebitis;
- 3. obesity;
- 4. varicose veins;
- 5. traumatic injuries of veins.

Choose the correct combination of answers: A - 1, 3, 5; B - 1, 2, 4; B - 2, 3 4; G - 2, 3, 5; D - 1, 2, 5.

**five. Clinical signs of wet limb gangrene:**

- 1. edema of tissues, discoloration of the skin;
- 2. intoxication;
- 3. delimitation of necrotic areas;
- 4. putrid smell;
- 5. absence of a demarcation line.

Choose the correct combination of answers: A - 1, 2; B - 1, 3, 4, 5; B - 2, 4; G - 1, 2, 4, 5; D - 2, 3.

**6. What are the palliative operations for malignant tumors:**

- one) removal of metastases along with the tumor;
- 2) imposition of internal bypass anastomoses in obstruction of the lumen of the organ;
- 3) stopping bleeding from the tumor;
- four) removal of the primary tumor leaving unallocated metastases;
- five) superradical operations.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 3, 4; B - 2, 3, 4, 5; G - 1, 4; D - 2, 3, 5.

**7. Chemotherapy can be used alone if:**

- A. early stages of malignant tumors ;;

B. neoplastic diseases of the blood ;;

V. never apply ;;

G. tumors of the stomach and colon;

**8. In intestinal tumors, hematogenous metastases are more common:**

A. in the brain ;;

B. in the flat bones of the skeleton ;;

V. in the liver ;;

G. in the soft tissues of the lower extremities ;;

D. in the mammary gland;

**9. The main syndromes in the diagnosis of malignant tumors include:**

**Pick all the correct answers**

A. plus-tissue syndrome ;;

B. syndrome of pathological discharge ;;

B. malabsorption syndrome ;;

G. syndrome of organ dysfunctions ;;

D. syndrome of small signs .;

**10. To what stage, according to the clinical classification, does the following tumor belong: a tumor of the intestine, occupying half of its diameter, invading the mucous, submucous and muscular layers, but not invading the entire wall, without metastases?**

A. I stage .;

B. Stage II .;

B. stage III .;

D. stage IV .;

**A TASK**

Patient B., 70 years old, was admitted to the hospital with complaints of intense pain in the left leg and leg, depriving him of sleep. Forced to sleep with the leg down. She notes an increase in body temperature up to 38 ° C, a feeling of heat, chills, dry mouth, thirst, severe weakness, malaise, headache. Worsening of the condition within 5 days. Prior to that, he noted the chilliness of the feet, pain when walking in the feet and calf muscles after 20-50 m, the periodic appearance of ulcers on the toes of the left foot. On examination, the condition was severe, hyperthermia, pulse 110 in 1 minute, blood pressure 100/60 mm Hg. There is no pulsation on the vessels of the left leg at all levels; on the right, a sharply weakened pulsation on the femoral artery below the inguinal fold is determined. The right foot is cool and pale. The left foot and lower leg up to the upper third are pale, marbled-bluish, edematous, cold to the touch, there is no skin sensitivity, the limb is enlarged in volume. On the foot and the



lower third of the lower leg, the skin is cyanotic, with dark red spots, blisters with hemorrhagic contents. Upon opening them, fabrics of a dirty gray color with a fetid odor appear.

- a) Make the correct diagnosis, b) What method of treatment (conservative or surgical) is indicated in this case?
- c) If a surgical method is indicated, then what is the volume and timing of the operation?

## **COLLOQUIUM "BLOOD DISORDER, ONCOLOGY"**

### **OPTION No. 10**

**one. List the causes of lymph circulation disorder:**

1. congenital underdevelopment of the lymphatic vessels;
2. chronic diseases of the lymph nodes (tuberculosis, syphilis);
3. compression of blood vessels by tumor, scarring;
4. obliterating atherosclerosis.

Choose the correct combination of answers: A - 1,2; B - 1,2, 3; B -2, 3,4; D -3,4; D- 1,3,4.

**2. List the basic principles of trophic ulcer treatment:**

- 1) excision of the ulcer;
- 2) mechanical, chemical necrectomy;
- 3) stimulation of reparative regeneration;
- 4) pathogenetic treatment;
- 5) plastics of the ulcer surface with a displaced skin flap.

Choose the correct combination of answers: A - 1, 2; B - 3, 4; B - 4, 5; G - 2, 3; D - 2, 3, 4, 5.

**3. Necrectomy and amputation are the main methods of treatment at the stage of ischemia:**

- A. organic violations ;;
- B. functional disorders ;;
- V. necrotic;

**4. Where are trophic ulcers of the lower extremities more often localized in venous insufficiency?**

- A. In the distal sections .;
- B. In the area of the medial ankle .;
- B. In the heel area;
- D. In any area of a segment with impaired venous outflow;

**5. With wet gangrene there are:**

**Pick all the correct answers**

- A. tissue edema ;;

- B. discoloration of the skin ;;
- B. intoxication ;;
- D. the presence of a demarcation line ;;
- D. putrid smell ;;
- E. development of pathogenic microflora;

**6. A superficially located benign tumor has the following symptoms:**

- 1) rounded or lobed structure;
- 2) mobile, not connected with surrounding tissues;
- 3) motionless, soldered to the surrounding tissues;
- 4) palpation of the tumor is painless;
- 5) enlarged regional lymph nodes are palpated.

Choose the correct combination of answers: A - 1, 2, 4; B - 1, 3, 4; B - 1, 2, 3; G - 2, 4, 5; D - 1, 2, 5.

**7. Polymorphism of tumor cells is called:**

- A. morphological differences between tumor cells and tissue cells from which it developed ;;
- B. the difference in morphological criteria of tumor cells from its metastases ;;
- C. presence in the structure of the tumor cells of heterogeneous morphological characteristics;

**8. Methods of physical antiblasticity include:**

**Pick all the correct answers**

- A. using an electric knife ;;
- B. use of laser ;;
- B. irradiation of the tumor before surgery and in the early postoperative period ;;
- D. intravenous administration of drugs on the operating table;

**9. An early diagnosis is considered if a tumor is detected:**

- A. stage I or stage cancer in situ ;;
- B. at stage II-III, radical treatment is possible in most patients ;;
- B. at III-IV stage, when radical treatment in most patients is impossible ;;
- G. at I, II and III stages, in which a complete cure of patients is always possible .;

**10. The syndrome of small signs includes:**

**Pick all the correct answers**

- A. weight loss and decreased appetite ;;

- B. unexplained increase in body temperature;
- B. the appearance of blood impurities in the stool ;;
- G. weakness and fatigue ;;
- D. anemia ;;
- E. leukocytosis;

### A TASK

Patient S. 75 years old suffers from ischemic heart disease, postinfarction cardiosclerosis, atrial fibrillation, circulatory failure. Was admitted with pain in the right leg, numbness of the right foot, inability to active movements 48 hours after the onset of the disease. He fell ill acutely: suddenly there was a sharp, very intense pain in the right leg and foot, numbness, cold snap, paresthesia, a feeling of creeping. Gradually, the pain decreased, mainly localized in the foot and lower third of the leg, movement disorder and complete lack of sensitivity joined. On examination, the general condition of moderate severity, the body temperature is normal. On the left leg, the pulsation of the arteries is somewhat weakened, determined at all levels. On the right lower limb, there is no pulsation on the femoral artery only, on the lower leg and foot.nye are difficult, palpation soreness is noted above. The skin is pale, with cyanotic spots. Toes and most of the foot are bluish-black, dry, wrinkled,the demarcation line is clearly defined.

- a) Establish a diagnosis, b) What radical or palliative surgical treatment is indicated for the patient? c) The timing of the operation?

## COLLOQUIUM "BLOOD DISORDER, ONCOLOGY"

### OPTION No. 11

#### **one. Methods for the treatment of purulent thrombophlebitis:**

1. anticoagulants;
2. antibiotics;
3. shunting;
4. installation of an umbrella probe into the lumen of the vein;
5. ligation and removal of the vein.

Choose the correct combination of answers: A - 1, 2, 5; B - 1, 4; B - 2, 3, 5; G - 2, 5; D - 1, 2.

#### **2. Where are trophic ulcers of the lower extremities more often localized in venous insufficiency?**

- A. In the distal sections .;
- B. In the area of the medial ankle .;
- B. In the heel area;
- D. In any area of a segment with impaired venous outflow;

#### **3. To perform an indirect embolectomy, use:**

- A. Fogerty catheter ;;
- B. Foley catheter ;;
- B. Petzer catheter ;;
- D. subclavian catheter;

**4. What is characteristic of dry gangrene?**

**Pick all the correct answers**

- A. Tissue edema;
- B. Discoloration of the skin;
- B. Intoxication .;
- D. The presence of a demarcation line .;
- D. Mummification of necrotic tissue .;
- E. Putrid odor .;

**five. List the causes of trophic ulcers:**

1. violation of venous circulation;
2. violation of arterial circulation;
3. violation of lymph flow;
4. damage to the spinal cord, nerves;
5. diabetes mellitus.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 3, 4; B - 1, 2, 3, 4; G - 1, 2, 3, 5; D - all answers are correct.

**6. What designation corresponds to a stomach tumor that does not go beyond the mucous membrane, there are no metastases in regional lymph nodes and distant organs?**

- A) P2T1 N2 MO.
- B) P3T2NOM1.
- B) P3T3N2M1.
- D) P1 T1 N0 MO.

Choose the correct answer.

**7. Malignant tumors are characterized by:**

**Pick all the correct answers**

- A. severe atypia and polymorphism of cells ;;

- B. absence or minimal differences of tumor cells from cells of maternal tissue ;;
- B. expansive growth without invasion ;;
- D. infiltrating growth ;;
- D. rapid growth, the ability to metastasize .;

**8. Select indications for surgical treatment of benign tumors.**

**Pick all the correct answers**

- A. Permanent trauma to the tumor;
- B. Dysfunction of the organ;
- B. Before the operation, there is no absolute certainty that the tumor is not malignant .;
- D. Increased ESR and leukocytosis;
- D. Cosmetic defects .;

**9. What is called atypia of tumor cells?**

- A. Difference between different cells in terms of morphological characteristics within the same tumor;
- B. The difference in morphological criteria of tumor cells from its metastases;
- B. Morphological differences between tumor cells and tissue cells from which it has developed;

**10. When assessing the cure from a malignant tumor, the following time period is taken as a basis:**

- A. 3 years ;;
- B. 2 years ;;
- B. 5 years ;;
- G. 15 years old ;;
- D. 10 years;

**A TASK**

Patient K., 47 years old, turned to the clinic with complaints of the appearance of a wound in the area of a postoperative scar with purulent discharge. 2 months ago he underwent a median laparotomy, suturing of a perforated ulcer of the duodenal bulb. The early postoperative period was uneventful. Was discharged in satisfactory condition, the wound healed by primary intention. 7 days ago, there was a painful induration in the area of the postoperative scar, an increase in body temperature up to 38 ° C, redness and swelling of the skin. 2 days ago, a wound with a diameter of 8 mm with purulent discharge. After that, the pain decreased, the body temperature returned to normal. On examination, in the upper third of the postoperative scar there is a wound with a diameter of 5-8 mm with serous-purulent discharge, around in the soft tissues a painful infiltration is determined, the skin is edematous, hyperemic. During revision, the wound channel length 1.5 cm, ending in soft tissues, a lavsan ligature is determined at the bottom.

- a) What is your diagnosis? b) Additional research methods? c) Treatment?

## COLLOQUIUM "BLOOD DISORDER, ONCOLOGY"

### OPTION No. 12

**one. What drugs are considered pathogenetically justified for the treatment of patients with obliterating endarteritis?**

1. Desensitizing drugs.
2. Glucocorticoids.
3. Vasodilators.
4. Disaggregants.
5. Antibiotics.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 3,4; B - 2,4; G - 1, 3,4; D - 2, 3.

**2. With wet gangrene there are:**

**Pick all the correct answers**

- A. tissue edema ;;
- B. discoloration of the skin ;;
- B. intoxication ;;
- D. the presence of a demarcation line ;;
- D. putrid smell ;;
- E. development of pathogenic microflora;

**3. Select the causes of acute arterial circulatory disorders.**

**Pick all the correct answers**

- A. Damage to the main vessel;
- B. Thrombosis;
- B. Embolism .;
- D. Hyperplasia of the vascular wall .;

**four. What is the method of treatment for lipoid intestinal fistula:**

- A) conservative treatment;
- B) filling the fistula;
- C) diathermocoagulation of the fistula;
- D) resection of a section of the intestine with a fistula;
- E) ligation of the fistulous canal.

Choose the correct answer.

**five. Select the characteristic signs of thromboembolism of the limb arteries:**

1. a gradual increase in pain;
2. sudden onset of acute pain;
3. cyanosis of the skin;
4. pallor of the skin;
5. coldness of the limb.

Choose the correct combination of answers:

A - 1,2, 3; B-2, 3,4; B-4, 5; D-2, 4, 5; D- 1,3,5.

**6. What is called a tumor?**

- A. Pathological formation, independently developing in the cavities of organs and tissues, not distinguished by autonomous growth, polymorphism and atypia of cells;
- B. Pathological formation, independently developing in organs and tissues, characterized by autonomous growth, polymorphism and atypia of cells .;
- C. Pathological formation, characterized by autonomous growth, without polymorphism and atypia of cells;
- D. Pathological formation, prone to metastasis and invasive growth;

**7. Specify the main ways of metastasis.**

**Pick all the correct answers**

- A. Lymphogenous .;
- B. Contact .;
- B. Airborne;
- G. Hematogenous .;
- D. Implantation .;

**8. What is the principle of the case?**

- A. Removal along with the tumor of the presenting cellular spaces and the surrounding fascia .;
- B. Dissection of tissues along the fascia;
- B. Wide excision of vessels, tendons and nerve trunks adjacent to the affected organ;

**nine. What designation corresponds to a stomach tumor that does not go beyond the mucous membrane, there are no metastases in regional lymph nodes and distant organs?**

- A) P2T1 N2 MO.
- B) P3T2NOM1.
- B) P3T3N2M1.
- D) P1 T1 N0 MO.

Choose the correct answer.

**10. Indicate the basic principles of the surgical treatment of benign tumors.**

**Pick all the correct answers**

- A. Removal of the tumor within healthy tissue .;
- B. Removal along with the capsule, if any .;
- B. Removal of regional lymph nodes;
- D. Wide excision of the tumor with the surrounding tissues, retreating 5–8 cm from the visible border of the lesion .;

**A TASK**

Patient R. 78 years old suffered an acute ischemic cerebrovascular accident 14 days ago with the development of right-sided hemiparesis, aphasia, with dysfunction of the pelvic organs, which is accompanied by urinary and fecal incontinence. Immobile, independent movements are impossible, forced position not on the back. For the last 3 days, relatives have noticed a worsening of the general condition, an increase in body temperature, dry tongue, anxiety, tachycardia, sweating, and a deterioration in appetite. That, when turning the patient, pallor and cyanosis of the skin in the sacrum region were noted. Examined by the surgeon on the side. In the region of the sacrum the skin is cyanotic on an area measuring 7x5 cm with dark purple spots. Soft tissues are edematous, there is a detachment of the epidermis, maceration, the appearance of blisters with reddish-brown contents, reddish and purple wounds. On palpation, the soreness of the surrounding tissues is determined.

- a) What is your diagnosis? b) Treatment tactics? c) Prevention of this complication in seriously ill patients?

**COLLOQUIUM "BLOOD DISORDER, ONCOLOGY"**

**OPTION No. 13**

**one. Who develops obliterating endarteritis more often?**

- 1) In children.
- 2) Men are 20-40 years old.
- 3) Women are 30-60 years old.
- 4) Smokers.
- 5) Those who have suffered from frostbite.

Choose the correct combination of answers: A - 1,5; B - 1,2, 3; B-2, 3,5; G-2,4, 5; D-2, 4.

**2. Necrosis - death of tissues, whole organs or their parts:**

- A. in a living organism ;;
- B. after the death of a person .;



**3. What is characteristic of atherosclerosis obliterans?**

**Pick all the correct answers**

- A. Defeat of the aorta and its large branches;
- B. Age less than 40 years old .;
- B. Damage to the arteries of the lower extremities only .;
- D. Local damage to the vessel is possible .;
- D. Bypass is almost impossible .;

**4. Trophic ulcers are formed when:**

**Pick all the correct answers**

- A. insufficiency of venous circulation ;;
- B. avitaminosis ;;
- B. insufficiency of arterial circulation ;;
- G. damage to the spinal cord ;;
- D. damage to peripheral nerves ;;
- E. diabetes mellitus;

**5. Indicate the most important of the listed factors to prevent the development of gas gangrene.**

- A. Excision of the wound edges .;
- B. Suturing the wound;
- B. Drainage of the wound .;
- D. Wound washing .;
- D. Antibacterial therapy .;
- E. Excision of non-viable tissues, washing the wound .;

**6. What is called atypia of tumor cells?**

- A. Difference between different cells in terms of morphological characteristics within the same tumor;
- B. The difference in morphological criteria of tumor cells from its metastases;
- B. Morphological differences between tumor cells and tissue cells from which it has developed;

**7. True relapse is characterized by:**

**Pick all the correct answers**

- A. re-development of the tumor in the same place after its complete removal by surgery or other means ;;
- B. re-development of the tumor after its incomplete removal ;;
- C. re-formation of a tumor in another place after complete removal of the previous one, the morphological structure is similar ;;
- G. only malignant tumors recur .;

**eight. A malignant tumor is distinguished by:**

1. expansive growth;
2. metastasis to lymph nodes and organs;
3. tendency to relapse;
4. infiltrating growth;
5. the presence of the capsule.

Choose the correct combination of answers: A - 1, 2, 3; B - 3, 4, 5; B - 2, 3, 4; G - 2, 3, 5; D - 2, 3, 4, 5.

**nine. A superficially located benign tumor has the following symptoms:**

1. rounded or lobed structure;
2. is mobile, not connected with surrounding tissues;
3. motionless, soldered to the surrounding tissues;
4. palpation of the tumor is painless;
5. enlarged regional lymph nodes are palpable.

Choose the correct combination of answers: A - 1, 2, 4; B - 1, 3, 4; B - 1, 2, 3; G - 2, 4, 5; D - 1, 2, 5.

**10. Indicate the main methods of treatment of malignant tumors.**

**Pick all the correct answers**

- A. Surgical .;
- B. Chemotherapy .;
- B. Palliative .;
- G. Luchevea .;
- D. Combined .;

**A TASK**

Patient T., 63 years old, was admitted to the surgical department with complaints of severe pain in the calf muscles and feet when walking, which makes the patient stop through 20 m, pain in the right foot at rest, worse at night, cold feet. On examination: the skin of the lower extremities, especially the feet, is dry, pale, the nails are thickened, brittle, the muscles are atrophic, the hair is absent, the feet are cool to the touch, especially the right one. The right

foot with cyanotic spots, edematous, cyanotic, on the plantar surface of the 1st toe, a sharply painful, round wound with a diameter 1 cm, with dense, uneven edges, covered with necrotic masses of dark brown color, flaccid granulations. The discharge is scanty, serous-hemorrhagic, with an unpleasant putrid odor. Ripple on the femoral, popliteal arteries, leg and foot arteries on both sides is not detected.

a) Establish a diagnosis, b) List special research methods, c) List methods of complex treatment.

## COLLOQUIUM "BLOOD DISORDER, ONCOLOGY"

### OPTION No. 14

**one. Which of the following is a danger in terms of the development of embolism?**

1. Parietal heart thrombus.
2. Thrombus of the femoral artery.
3. Phlebitis of the ulnar vein.
4. Widespread thrombus of the leg and thigh veins.
5. Thrombus of the saphenofemoral anastomosis.

Choose the correct combination of answers: A - 1,4, 5; B -2, 3,4; B -2,3; D - 3, 5; D - 3,4.

**2. Indicate the most important of the listed factors to prevent the development of gas gangrene.**

- A. Excision of the wound edges .;
- B. Suturing the wound;
- B. Drainage of the wound .;
- D. Wound washing .;
- D. Antibacterial therapy .;
- E. Excision of non-viable tissues, washing the wound .;

**3. Which of the following is characteristic of a trophic ulcer?**

**Pick all the correct answers**

- A. The healing period is more than 2 months;
- B. Healing time less than 2 months;
- B. The presence of well-developed granulations .;
- D. The presence of flaccid granulations .;

**4. Edema and cyanosis of the skin are characteristic of necrosis caused by:**

- A. arterial obstruction ;;
- B. violation of venous outflow ;;

V. violation of microcirculation;

**5. The symptom of intermittent claudication is characteristic for:**

- A. obliterating atherosclerosis ;;
- B. post-thrombotic disease;
- B. diabetic foot syndrome ;;
- G. varicose veins;

**6. Currently, the following factors are included in the theory of the origin of tumors:**

**Pick all the correct answers**

- A. mechanical ;;
- B. chemical ;;
- B. psychological ;;
- G. physical ;;
- D. biological ;;
- E. genetic ;;
- G. the state of the immune and humoral systems .;

**7. To what stage according to the clinical classification does the following tumor belong: a tumor of the intestine, occupying half of its diameter, invading the mucous, submucous and muscular layers, but not invading the entire wall, without metastases?**

- A. I stage .;
- B. Stage II .;
- B. stage III .;
- D. stage IV .;

**eight. Choose an absolute indication for the removal of a benign tumor**

- 1. Compression of an organ by a tumor that disrupts its functions;
- 2. permanent trauma to a superficially located tumor from clothing or shoes;
- 3. acceleration of tumor growth;
- 4. long-term existence of the tumor;
- 5. suspicion of malignant transformation.

Choose the correct combination of answers: A - 1, 2, 3, 4; B - 1, 3, 4, 5; B - 1, 2, 3, 5; G - 2, 3, 4, 5; D - all answers are correct.

**nine. With gastroscopy, you can establish:**

1. localization of the tumor;
2. the color of the tumor;
3. stage of the tumor process;
4. condition of regional lymph nodes;
5. the presence or absence of tumor disintegration.

Choose the correct combination of answers: A - 1, 2, 3; B - 1, 3, 4; B - 1, 4, 5; G - 2, 3, 4; D - 1, 2, 5.

**10. The fastest and most aggressive growth is possessed by:**

- A. highly differentiated tumors ;;
- B. undifferentiated tumors ;;
- B. poorly differentiated tumors;

#### **A TASK**

Patient M., 62 years old, suffering from varicose veins, 4 days ago, felt pulling pains along the dilated vein of the lower third of the thigh, compaction in this part of the vein. After 2 days, the seal spread to the upper border of the inner surface of the thigh, hyperemia and swelling appeared. On examination, a dense painful band on the inner surface of the thigh, reaching the upper third, skin hyperemia, swelling. There is no fluctuation. Body temperature 37.6 ° C.

What is your diagnosis and treatment tactics?

#### **COLLOQUIUM "CLINICAL RESEARCH METHODS"**

##### **OPTION # 1**

**1. Ultrasound examination is indicated for patients with the following diseases: a) stomach cancer; b) acute cholecystitis; c) duodenal ulcer; d) urolithiasis; e) hemorrhoids; f) phimosis; g) nodular goiter; h) duodenitis. Choose the correct combination of answers:**

1. b, d, e.

2. a, b, d, g.

3. g, h.

4. in, g.

5. a, e, g.

2 Surgical interventions by classification Altmeier are divided into: a) clean; b) conditionally clean; c) contaminated; d) dirty; e) infected; f) contaminated; g) infected. Choose the correct combination of answers:

- 1) a B C D.
- 2) d, f, g.
- 3) a, b, d
- 4) a, c.
- 5) a, b, f.

3. What types of enemas are used immediately before surgery?

BUT) hypertensive.

B) siphon.

IN) cleansing.

Choose the correct answer.

4. What is used to cleanse the intestines in preparation for a planned operation?

BUT) Only laxatives

B) Cleansing enemas the night before and the morning of surgery

IN) Siphon enema in the evening and morning on the day of surgery

D) Laxatives (if indicated) and cleansing enemas the evening before and in the morning before surgery

5. What is included in the premedication before a planned operation?

BUT) Narcotic analgesics and antispasmodics in 30-40 minutes. before surgery

B) Sleeping pills and sedatives, at night, in the morning - sedatives, narcotic analgesics with atropine for 30-40 minutes. before surgery.

IN) Sleeping pills and sedatives at night, in the morning - sedatives, narcotic analgesics and atropine

D) Narcotic analgesics and atropine 1.5-2 hours before surgery.

6. What are the main tasks of the immediate preoperative preparation of the patient?

- 1) clarification of the diagnosis.
- 2) identification of concomitant diseases.
- 3) determination of indications for surgery.
- 4) fight against endogenous infection.
- 5) elimination of hypovolemia and hypoproteinemia.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 3, 4; B - 3, 4, 5; G - 3, 4; D - 4, 5.

7. Specify the stages of the surgical operation:

1) surgical access;

2) placing the patient on the operating table;

3) prompt reception;

4) stopping bleeding;

5) wound closure.

Choose the correct combination of answers: A - all answers are correct; B - 1, 2, 3; B - 1, 3, 5; G - 1, 3, 4, 5.

**8. The characteristics of pain include all of the above, except:**

A. localization of pain

B. irradiation (places where pain is reflected)

B. Time of appearance (day, night)

D. Duration (constant, periodic, paroxysmal)

D. intensity (strong, weak, interferes or does not interfere with sleep, work)

E. tenderness on palpation

**9. Laparoscopy is indicated for patients with the following diseases: a) duodenitis; b) ulcerative colitis; c) acute proctitis; d) fibrocystic breast disease; e) stomach cancer; f) acute pyelonephritis; g) acute iliofemoral venous thrombosis; h) mesenteric thrombosis. Choose the correct combination of answers:**

1. b, d, e.

2. a, b, d, g.

3. in, g.

4. d, h.

5. b, f, g.

**10. Which of the listed blood substitutes is advisable to transfuse a patient who has been diagnosed with hypoproteinemia in the preoperative period?**

1) povidone + sodium chloride + potassium chloride + calcium chloride + magnesium chloride + sodium bicarbonate.

2) gelatin.

3) hydrolysin.

4) dextran [cf. molecular weight 50,000-70,000].

5) amino acid solution.

Choose the correct combination of answers: A - 1, 2; B - 1, 3; B - 3, 4; G - 2, 4, 5; D - 3, 5.

**A TASK**

The patient is to undergo an operation for a tumor of the ascending colon. Before the operation, the attending physician bandaged the patient's legs with an elastic bandage and asked him to go to the toilet. After premedication, the patient was taken to the operating room. What mistakes were made, and to what complications it can lead?

## COLLOQUIUM "CLINICAL RESEARCH METHODS"

### OPTION # 2

**1. Laparoscopy is indicated for patients with the following diseases: a) duodenitis; b) ulcerative colitis; c) acute paraproctitis; d) fibrocystic breast disease; e) stomach cancer; f) acute pyelonephritis; g) acute ileofemoral venous thrombosis; h) mesenteric thrombosis. Choose the correct combination of answers:**

1. b, d, e.
2. a, b, d, g.
3. in, g.
4. d, h.
5. b, f, g.

**2. Specify the stages of the surgical operation: a) surgical access; b) placing the patient on the operating table; c) prompt reception; d) stopping bleeding; e) wound closure. Choose the correct combination of answers:**

- 1) a B C.
- 2) a, c, d.
- 3) a, c, d, e.
- 4) b, c.
- 5) everything is true.

**3. What is the preparation of the patient for a planned operation directly on the day of surgery?**

- 1) general hygienic bath.
- 2) shaving hair in the area of the operating field.
- 3) premedication.
- 4) blood transfusion.
- 5) gastric lavage.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 3; B - 3, 4; G - 2, 3, 5; D - 1, 3.

**4. Prevention of deep vein thrombosis after surgery includes: a) antibiotic therapy; b) bandaging a limb; c) prolonged bed rest after surgery; d) early activation of patients after surgery; e) the use of anticoagulants.**

**Pick all the correct answers**

- 1) a, b;
- 2) d, d;
- 3) b, c, e;
- 4) b, d, e;
- 5) a, c, e;



**five.** What methods of wound infection prevention should be used before a planned operation? a) breathing exercises; b) activation of the patient; c) desensitization of the body; d) sanitation of the oral cavity; e) changing the patient's linen; f) hygienic shower; g) stimulation of diuresis; h) processing of the surgical field. Choose the correct combination of answers:

- 1) a, d, d.
- 2) f, g.
- 3) a, b, g.
- 4) in, g.
- 5) d, e, f, h.

6. What is included in the premedication before an emergency operation?

BUT) Sedatives and hypnotics together with narcotic analgesics 1.5-2 hours before surgery

B) Narcotic analgesics and antispasmodics in 30-40 minutes. before surgery

IN) Narcotic analgesics and atropine for 30-40 minutes. before surgery

D) Narcotic analgesics and atropine 1.5-2 hours before surgery

D) All of the above is wrong

7. What is the prevention of wound infection in the preoperative period?

- 1) sanitation of the oral cavity.
- 2) hygienic bath.
- 3) processing of the operating field.
- 4) change of linen.
- 4) pyoderma treatment.

Choose the correct combination of answers: A - 1, 2, 3, 4; B - 2, 3, 4, 5; B - 1, 2, 4, 5; G - 1, 4, 5; D - all answers are correct.

8. What does the preliminary preparation of the operating field include during a planned operation?

Pick all the correct answers

BUT) Dry shaving hairline

B) Putting on sterile linen

IN) Complete sanitary and hygienic processing

D) Treatment of the operating field with antiseptics

**nine.** Highlight special operations:

- 1) microsurgical;
- 2) endoscopic;

- 3) simultaneous;
- 4) diagnostic;
- 5) endovascular.

Choose the correct combination of answers: A - 1, 2, 5; B - 1, 2, 3; B - 1, 3, 4, 5; D - 4, 5.

**10.** Select the main stages of surgical treatment of patients.

Pick all the correct answers

- BUT) Preoperative preparation
- B) Dispensary observation
- IN) Postoperative period
- D) Surgery

### **A TASK**

Patient M., 62 years old, suffering from bilateral inguinal-scrotal hernia, on the eve of the operation, asked to go home. In the evening he took a shower, shaved the operating field and returned to the hospital the next morning. What mistakes were made and what consequences could this lead to?

## **COLLOQUIUM "CLINICAL RESEARCH METHODS"**

### **OPTION # 3**

**1. What sections are not included in the clinical history of a surgical patient?**

**Pick all the correct answers**

- A. Etiology and pathogenesis;
- B. Plan of examination and treatment;
- B. Pathological changes in organs;
- D. Preliminary diagnosis;
- D. Prevention of the disease;
- E. Observation diary;

**2** When scheduling the operating room, which of the numerical operations need to be planned first?

- 1) phlebectomy;
- 2) pneumonectomy;
- 3) colon resection;
- 4) resection of the small intestine;
- 5) the imposition of secondary sutures.

**3.** What are the main tasks of the immediate preoperative preparation of the patient?

- 6) clarification of the diagnosis.
- 7) identification of concomitant diseases.
- 8) determination of indications for surgery.
- 9) fight against endogenous infection.
- 10) elimination of hypovolemia and hypoproteinemia.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 3, 4; B - 3, 4, 5; G - 3, 4; D - 4, 5.

**4. What does the preliminary preparation of the operating field include during a planned operation?**

Pick all the correct answers

- BUT) Dry shaving hairline
- B) Putting on sterile linen
- IN) Complete sanitary and hygienic processing
- D) Treatment of the operating field with antiseptics

**5. Prevention of deep vein thrombosis after surgery includes: a) antibiotic therapy; b) bandaging a limb; c) prolonged bed rest after surgery; d) early activation of patients after surgery; e) the use of anticoagulants.**

Pick all the correct answers

- 1) a, b;
- 2) d, d;
- 3) b, c, e;
- 4) b, d, e;
- 5) a, c, e;

**6. Determine the sequence of examination of a patient with acute pathology of the abdominal organs: a) clarification of complaints and anamnesis of the patient; b) survey radiography of the abdominal organs; c) emergency laboratory tests of blood and urine; d) assessment of the patient's condition and physical examination of organs and systems; e) ultrasound of the abdominal organs; f) emergency laparoscopy. Choose the correct combination of answers:**

1. a, b, c, d, e, f.
2. e, a, d, c, b, f.
3. g, d, f, a, b, c.
4. b, d, f, a, c, e.
5. a, d, c, b, e, f.

7. When should you shave your skin before an elective surgery?

- 1) before admission to the hospital;
- 2) the day before the operation;
- 3) the evening before the operation;
- 4) in the morning on the day of surgery;
- 5) immediately before the start of the operation on the operating table.

8. Prescribe treatment for pressure ulcers in the ischemic stage.

- A) Treatment with ethyl 70% alcohol
- B) Treatment with vaseline oil
- C) Treatment with camphor alcohol
- D) Treatment with 5% potassium permanganate solution.

9. Prescribe treatment for pressure ulcers in the necrosis stage.

- A) Treatment with ethyl 70% alcohol
- B) Treatment with 5% potassium permanganate solution
- C) Dressings with Vishnevsky ointment
- D) Treatment with camphor alcohol.

10. What are the goals of preoperative preparation?

Pick all the correct answers

- BUT) Prevention of intraoperative complications
- B) Preparing the patient for complex examination methods
- IN) Prevention of postoperative complications

### **A TASK**

A patient with intestinal fistula will have a reconstructive operation. What research methods are needed in this case?

## **COLLOQUIUM "CLINICAL RESEARCH METHODS"**

### **OPTION # 4**

**1. How often does the attending physician draw up observation diaries for patients in satisfactory condition?**

A. Twice a day;

B. Daily;

B. Every other day;

D. Once every 3 days;

D. Only when the patient's condition worsens;

2. Contraindications for emergency surgery for widespread peritonitis are: a) fresh myocardial infarction; b) severe traumatic shock with concomitant injury; c) the agonal state of the patient; d) early postoperative period; e) there are no contraindications. Choose the correct combination of answers:

1) a B C.

2) in, g.

3) b, c.

4) a, c.

5) etc.

3. Highlight the main factors that determine the duration of the preoperative period.

1) the nature of the disease.

2) the volume of the upcoming operation.

3) patient status.

4) type of pain relief.

5) the urgency of the operation.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 3, 4; B - 1, 3, 5; D - 2, 4, 5; D - 2, 3, 5.

4. A separate description in the medical history of local pathologicalsky status (st. localis) is mandatory for the following diseases: a) obliterating atherosclerosis of the vessels of the lower extremities; b) post-injection abscess of the gluteal region; c) varicose veins of the lower extremities; d) strangulated inguinal hernia; e) gastric ulcer and 12 duodenal ulcer; f) acute calculous cholecystitis; g) acute appendicitis; h) purulent pleurisy; i) breast tumors. Choose the correct combination of answers:

1. a, b, c, d, and.

2. a, b, e, f, h.

3. c, d, h, and.

4. e, f, h, i.

5. everything istrue.

five. The complex of infusion preparation before the operation includes: a) correction of the water-electrolyte balance; b) vvedenial of narcotic analgesics; c) tube enteral nutrition; d) correction of the BCC deficit; e) intramuscular administration of antibiotics; f) the introduction of specific immunostimulating drugs. Choose the correct combination of answers:

1) a, b.

2) in, p.

- 3) a, d.
- 4) d, d.
- 5) d, f.

6. With urinary retention in the postoperative period, the following are shown:

- 1) warming the bladder area;
- 2) hypertensive enema;
- 3) intravenous administration of 10 ml of 40% methenamine solution;
- 4) the use of diuretics;
- 5) bladder catheterization.

Choose the correct combination of answers: A - 1, 2, 3; B - 1, 3, 4, 5; B - 1, 2, 3, 5; G - 1, 3, 5; D - all answers are correct.

7. What is included in the premedication before an emergency operation?

- BUT) Sedatives and hypnotics together with narcotic analgesics 1.5-2 hours before surgery
- B) Narcotic analgesics and antispasmodics in 30-40 minutes. before surgery
- IN) Narcotic analgesics and atropine for 30-40 minutes. before surgery
- D) Narcotic analgesics and atropine 1.5-2 hours before surgery
- D) All of the above is wrong

**eight.** What types of enemas are used immediately before surgery?

- BUT) hypertensive.
- B) siphon.
- IN) cleansing.

Choose the correct answer.

**nine.** Specify the stages of the surgical operation:

- 1) surgical access;
- 2) placing the patient on the operating table;
- 3) prompt reception;
- 4) stopping bleeding;
- 5) suturing the wound.

Choose the correct combination of answers: A - all answers are correct; B - 1, 2, 3; B - 1, 3, 5; G - 1, 3, 4, 5.

10. When do you start preoperative preparation for urgent surgical disease?

- BUT) 1.5-2 hours before surgery

- B) Directly in the operating room
- IN) Since the establishment of the diagnosis

### **A TASK**

A patient with blunt abdominal trauma with stable hemodynamics was taken by ambulance to a surgical hospital. The nurse of the emergency room called the doctor, and the patient was sent to the shower. What mistakes were made? What consequences can this lead to?

## **COLLOQUIUM "CLINICAL RESEARCH METHODS"**

### **OPTION # 5**

#### **1. What sections make up the subjective part of the medical history?**

**Pick all the correct answers**

- A. Passport part;
- B. Complaints;
- B. History of the disease;
- D. history of life;
- D. Objective research;
- E. Data from additional research methods;

#### **2. A radical operation is:**

- 1) an operation claiming a complete cure;
- 2) an operation that completely excludes the likelihood of the return of the main source of the disease;
- 3) excision of a tumor within healthy tissues;
- 4) removal of the affected organ and blockade of metastatic pathways;
- 5) intervention aimed at the complete elimination of the manifestations of the disease.

#### **3. When does the preoperative period begin?**

- BUT) disease first.
- B) from the moment of diagnosis.
- IN) from the moment of admission to the surgical hospital.
- D) since the establishment of indications for surgery.

Choose the correct answer.

four. The catabolic phase of the patient's postoperative state is characterized by:

- 1) activation of the sympathetic-adrenal system;
- 2) an increase in blood glucose levels;
- 3) increased breakdown of proteins;
- 4) an increase in the vital capacity of the lungs;
- 5) decrease in urine output.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 3, 4, 5; B - 1, 3, 5; G - 1, 2, 3, 5; D - all answers are correct.

**five.** The complex of infusion preparation before the operation includes: a) correction of the water-electrolyte balance; b) vvedenial of narcotic analgesics; c) tube enteral nutrition; d) correction of the BCC deficit; e) intramuscular administration of antibiotics; f) the introduction of specific immunostimulating drugs. Choose the correct combination of answers:

- 1) a, b.
- 2) in, p.
- 3) a, d.
- 4) d, d.
- 5) d, f.

6. What does the preliminary preparation of the operating field include during a planned operation?

Pick all the correct answers

- BUT) Dry shaving hairline
- B) Putting on sterile linen
- IN) Complete sanitary and hygienic processing
- D) Treatment of the operating field with antiseptics

7. Assess the correctness of clinical performance indicators organism, which are used to find out the reason for the critical deterioration of the patient's condition:

- 1) pulse more than 120 per minute,
- 2) decrease in blood pressure to 80 mm Hg
- 3) number of breaths 20 per minute;
- 4) cold clammy sweat;
- 5) bloating and flatulence during the day.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 3, 4; B - 1, 3, 4; G - 1, 3, 5; D - 1, 2, 4.

**eight.** The phase of reverse development in the uncomplicated course of the postoperative period is characterized by:

- 1) lasting 2-3 days;
- 2) lasting 4-6 days;
- 3) positive nitrogen balance;
- 4) decreased activity of the sympathetic-adrenal system;
- 5) restoration of the intestinal tract.

Choose the correct combination of answers: A - 1, 3, 5; B - 2, 3, 5; B - 2, 5; G - 1, 4, 5; D - 2, 3, 4, 5.

**nine.** What diseases require emergency surgery?

- 1) stomach cancer.
- 2) perforated stomach ulcer.



- 3) acute appendicitis.
- 4) malignant tumor of the lung.
- 5) strangulated inguinal hernia.
- 6) lipoma of the shoulder.

Choose the correct combination of answers: A - 2, 3, 5; B - 1, 3, 5; B - 2, 4, 6; D - 2, 3; D - 1, 4.

**10. If perforation of a hollow organ is suspected, the main research method is:**

1. colonoscopy;
2. survey radiography of the abdominal organs;
3. ultrasound;
4. irrigoscopy;
5. gastroscopy.

**A TASK**

After surgery on the stomach, a 58-year-old patient on the 4th day suddenly developed sharp pains in the right lower extremity, cold extremity, palpation of the lower leg is cold, there is no pulsation on the arteries of the foot and popliteal artery with preserved pulsation on the femoral artery, pain sensitivity on the lower leg and the foot is reduced. Your diagnosis, what should have been done to prevent this complication?

**COLLOQUIUM "CLINICAL RESEARCH METHODS"**

**OPTION # 6**

**1. If perforation of a hollow organ is suspected, the main research method is:**

1. colonoscopy;
2. survey radiography of the abdominal organs;
3. ultrasound;
4. irrigoscopy;
5. gastroscopy.

**2. Highlight special operations:**

- 6) microsurgical;
- 7) endoscopic;
- 8) simultaneous;
- 9) diagnostic;
- 10) endovascular.

Choose the correct combination of answers: A - 1, 2, 5; B - 1, 2, 3; B - 1, 3, 4, 5; D - 4, 5.

**3. Define the main tasks of the preoperative period.**

- 1) clarification of the diagnosis.
- 2) determination of indications for surgery.
- 3) preparation of the patient for surgery.
- 4) determination of the timing and nature of the operation.
- 5) determination of the scope of the operation and its duration.

Choose the correct answer. A - 1, 2, 3; B - 1, 3, 4, 5; C - 2, 3, 4, 5; G - 1, 2, 3, 4; D - all answers are correct.

**four...** What is used to cleanse the intestines in preparation for a planned operation?

A) Only laxatives

B) Cleansing enemas the night before and the morning of surgery

C) Siphon enema in the evening and morning on the day of surgery

D) Laxatives (if indicated) and cleansing enemas the evening before and in the morning before surgery

**5. In what case is it necessary to obtain the patient's consent for the operation?**

A) Always

B) Always, except when the patient is unconscious, and emergency surgery is necessary

C) For high-risk operations

D) Not necessary, the consent of relatives is enough

E) Not necessary

**6. Assess the correctness of clinical performance indicators organism, which are used to find out the reason for the critical deterioration of the patient's condition:**

- 1) pulse more than 120 per minute,
- 2) decrease in blood pressure to 80 mm Hg
- 3) number of breaths 20 per minute;
- 4) cold clammy sweat;
- 5) bloating and flatulence during the day.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 3, 4; C - 1, 3, 4; G - 1, 3, 5; D - 1, 2, 4.

**7. Indicate an incorrect assessment of the general condition of the patient:**

A. satisfactory;

B. relatively satisfactory;

C. of moderate severity;

D. severe;

E. is extremely difficult;

**eight.** What does the preliminary preparation of the surgical site include in an emergency operation?

- BUT) Dry shaving of the hairline and, if necessary, partial sanitization
- B) Change of bed and underwear
- IN) Complete sanitary and hygienic processing
- D) Dry hair shave and shower

**nine.** What diseases require emergency surgery?

- 1) stomach cancer.
- 2) perforated stomach ulcer.
- 3) acute appendicitis.
- 4) malignant tumor of the lung.
- 5) strangulated inguinal hernia.
- 6) lipoma of the shoulder.

Choose the correct combination of answers: A - 2, 3, 5; B - 1, 3, 5; B - 2, 4, 6; D - 2, 3; D - 1, 4.

10. When do preoperative preparation for a planned operation begin?

- BUT) 1 week before surgery
- B) From the moment the patient is admitted to the hospital
- IN) 2 days before surgery
- D) 1 day before surgery

### **A TASK**

A 76-year-old man came to you with complaints of blood in the feces, frequent constipation, weight loss. What research methods do you think will help in making a diagnosis?

## **COLLOQUIUM "CLINICAL RESEARCH METHODS"**

### **OPTION # 7**

**1. A separate description in the medical history of local pathological status (st. localis) is mandatory for the following diseases: a) obliterating atherosclerosis of the vessels of the lower extremities; b) post-injection abscess of the gluteal region; c) varicose veins of the lower extremities; d) strangulated inguinal hernia; e)**

**gastric ulcer and 12 duodenal ulcer; f) acute calculous cholecystitis; g) acute appendicitis; h) purulent pleurisy; i) breast tumors. Choose the correct combination of answers:**

1. a, b, c, d, and.
2. a, b, e, f, h.
3. c, d, h, and.
4. e, f, h, i.
5. everything is true.

**2. What diseases require emergency surgery?**

- 1) stomach cancer.
- 2) perforated stomach ulcer
- 3) acute appendicitis
- 4) malignant tumor of the lung
- 5) strangulated inguinal hernia
- 6) lipoma of the shoulder

Choose the correct combination of answers: A - 2, 3, 5; B - 1, 3, 5; B - 2, 4, 6; D - 2, 3; D - 1, 4.

**3. What diseases require emergency surgery? a) stomach cancer; b) perforated stomach ulcer; c) acute appendicitis; d) malignant tumor of the lung; e) restrained inguinal hernia; f) shoulder lipoma. Choose the correct combination of answers:**

- 1) b, c, d.
- 2) a, c, d.
- 3) b, d, f.
- 4) b, c.
- 5) a, d.

**4. To detect metastatic spread of a tumor, the following is used: a) ultrasound examination; b) laparoscopiya; c) sigmoidoscopy; d) X-ray examination; e) isotope scintigraphy; f) computed tomography; g) gastroduodenoscopy; h) diaphanoscopy. Choose the correct combination of answers:**

1. e, f.
2. a, c.
3. f, h, and.
4. a, c.
5. a, b, d, e, f.

**five. Specify the stages of the surgical operation:**

- 1) surgical access;
- 2) placing the patient on the operating table;
- 3) prompt reception;
- 4) stopping bleeding;

5) suturing the wound.

Choose the correct combination of answers: A - all answers are correct; B - 1, 2, 3; B - 1, 3, 5; G - 1, 3, 4, 5.

6. The tasks of the preoperative period include: a) assessment of the operational and anesthetic risk; b) determination of the urgency of the operation; c) establishing a diagnosis; d) determination of indications for surgery; e) identification of the state of vital organs and systems; f) determining the nature of the transaction; g) preparation of the patient for surgery. Choose the correct combination of answers:

- 1) b, d, d.
- 2) f, g.
- 3) a, h.
- 4) in, g.
- 5) everything is true.

7. What methods of wound infection prevention should be used before a planned operation? a) breathing exercises; b) activation of the patient; c) desensitization of the body; d) sanitation of the oral cavity; e) changing the patient's linen; f) hygienic shower; g) stimulation of diuresis; h) processing of the surgical field. Choose the correct combination of answers:

- 1) a, d, d.
- 2) f, g.
- 3) a, b, g.
- 4) in, g.
- 5) d, e, f, h.

**eight...** Prescribe treatment for pressure ulcers in the stage of purulent fusion.

- A) Dressings with Vishnevsky ointment
- B) Treatment with 5% potassium permanganate solution
- C) Treatment of a purulent wound
- D) Dressings with an ointment containing sodium heparin
- E) Antibiotic treatment.

nine. The use in the postoperative period of a load that presses on the wound pursues the following goals:

- BUT) prevention of dehiscence of the edges of the wound;
- B) reduction of pain;
- IN) prevention of the development of infection;
- D) prevention of thrombosis and embolism;
- D) prevention of bleeding.

Choose the correct answer.

10. Which of the following include the general principles of direct preparation of the patient for surgery?

Pick all the correct answers

- BUT) Preliminary preparation of the operating field
- B) Lack of stomach contents
- IN) Anti-inflammatory therapy
- D) Bowel emptying
- D) Emptying the bladder
- E) Premedication

### A TASK

Patient M., 52 years old, complains of a feeling of fullness in the chest, recurrent heartburn, belching with an unpleasant odor, weight loss. What research methods will help in making a diagnosis?

### COLLOQUIUM "CLINICAL RESEARCH METHODS"

#### OPTION # 8

**1. To detect metastatic spread of a tumor, the following is used: a) ultrasound examination; b) laparoscopiya; c) sigmoidoscopy; d) X-ray examination; e) isotope scintigraphy; f) computed tomography; g) gastroduodenoscopy; h) diaphanoscopy. Choose the correct combination of answers:**

- 1. e, f.
- 2. a, c.
- 3. f, h, and.
- 4. a, c.
- 5. a, b, d, e, f.

**2. Specify the stages of the surgical operation:**

- 6) surgical access;
- 7) placing the patient on the operating table;
- 8) prompt reception;
- 9) stopping bleeding;
- 10) suturing the wound.

Choose the correct combination of answers: A - all answers are correct; B - 1, 2, 3; B - 1, 3, 5; G - 1, 3, 4, 5.

**3. The tasks of the preoperative period include: a) assessment of the operational and anesthetic risk; b) determination of the urgency of the operation; c) establishing a diagnosis; d) determination of indications for surgery; e) identification of the state of vital organs and systems; f) determining the nature of the transaction; g) preparation of the patient for surgery. Choose the correct combination of answers:**

- 1) b, d, d.
- 2) f, g.
- 3) a, h.
- 4) in, g.
- 5) everything is true.

4. What is included in the premedication before an emergency operation?

- BUT) Sedatives and hypnotics together with narcotic analgesics 1.5-2 hours before surgery
- B) Narcotic analgesics and antispasmodics in 30-40 minutes. before surgery
- IN) Narcotic analgesics and atropine for 30-40 minutes. before surgery
- D) Narcotic analgesics and atropine 1.5-2 hours before surgery
- D) All of the above is wrong

five. What is the prevention of wound infection in the preoperative period?

- 5) sanitation of the oral cavity.
- 6) hygienic bath.
- 7) processing of the operating field.
- 8) change of linen.
- 5) pyoderma treatment.

Choose the correct combination of answers: A - 1, 2, 3, 4; B - 2, 3, 4, 5; B - 1, 2, 4, 5; G - 1, 4, 5; D - all answers are correct.

6. Non-specific prevention of thromboembolic complications after surgery includes:

- 1) strict bed rest;
- 2) the imposition of elastic bandages on the lower limbs;
- 3) active behavior of the patient in bed;
- 4) getting up early;
- 5) the use of anticoagulants.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 3, 4, 5; B - 2, 3, 4; G - 3, 4, 5; D - 1, 2, 5.

7. What is the preparation of the patient for a planned operation directly on the day of surgery?

- 1) general hygienic bath.
- 2) shaving off hair in the area of the operating field.
- 3) premedication.
- 4) blood transfusion.
- 5) gastric lavage.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 3; B - 3, 4; G - 2, 3, 5; D - 1, 3.

eight. Specify the stages of the surgical operation:

- 1) surgical access;
- 2) placing the patient on the operating table;
- 3) prompt reception;
- 4) stopping bleeding;
- 5) wound closure.

Choose the correct combination of answers: A - all answers are correct; B - 1, 2, 3; B - 1, 3, 5; G - 1, 3, 4, 5.

**9. Which of the following are reflected in the patient's life history (anamnesis vitae) ?:**

**Pick all the correct answers**

- A. past illnesses and injuries
- B. How the patient was examined and treated for the underlying disease
- B. Bad habits
- D. What prompted you to see a doctor now
- E. Factors contributing to the onset of the disease
- E. Allergic history
- G. Epidemiological history

**10. What does the preliminary preparation of the operating field include in an emergency operation?**

- BUT) Dry shaving of the hairline and, if necessary, partial sanitization
- B) Change of bed and underwear
- IN) Complete sanitary and hygienic processing
- D) Dry hair shave and shower

### **A TASK**

A 20-year-old patient was admitted with a knife wound to the abdomen, two hours after the injury. On examination: the skin is of a normal color, the smell of alcohol from the mouth. BP 110/70 mm Hg. Art., pulse - 78 beats. On the anterior abdominal wall above the navel there is a stab and cut wound 1 x 0.5 cm without bleeding. The surgeon made a survey X-ray, which showed no abdominal pathology. During revision, the end of the vascular clamp was inserted into the wound, which rested against the aponeurosis of the anterior abdominal wall. The wound was closed tightly, and the patient was allowed to go home with a recommendation to go to the local polyclinic for further treatment. Errors and consequences of the surgeon's actions?



# COLLOQUIUM "CLINICAL RESEARCH METHODS"

## OPTION # 9

### 1. Indicate an incorrect assessment of the general condition of the patient:

- A. satisfactory;
- B. relatively satisfactory;
- B. of moderate severity;
- G. severe;
- D. is extremely difficult;

### 2. Which of the following activities should be planned first when scheduling the operating room?

- A) flebectomy.
- B) pulmonectomy.
- B) Rcolon resection.
- D) resection of the small intestine.
- D) the imposition of secondary sutures.

Choose the correct answer.

### 3. What methods of wound infection prevention should be used before a planned operation? a) breathing exercises; b) activation of the patient; c) desensitization of the body; d) sanitation of the oral cavity; e) changing the patient's linen; f) hygienic shower; g) stimulation of diuresis; h) processing of the surgical field. Choose the correct combination of answers:

- 1) a, d, d.
- 2) f, g.
- 3) a, b, g.
- 4) in, g.
- 5) d, e, f, h.

### 4. Prescribe treatment for pressure ulcers in the stage of purulent fusion.

- A) Dressings with Vishnevsky ointment
- B) Treatment with 5% potassium permanganate solution
- C) Treatment of a purulent wound
- D) Dressings with an ointment containing sodium heparin
- E) Antibiotic treatment.

**5. Select the main types of diagnoses**

Choose all the correct answers:

- BUT) Preliminary
- B) Intermediate
- IN) Clinical
- D) Differential

**6. With urinary retention in the postoperative period, the following are shown:**

- 6) warming the bladder area;
- 7) hypertensive enema;
- 8) intravenous administration of 10 ml of 40% methenamine solution;
- 9) the use of diuretics;
- 10) bladder catheterization.

Choose the correct combination of answers: A - 1, 2, 3; B - 1, 3, 4, 5; B - 1, 2, 3, 5; G - 1, 3, 5; D - all answers are correct.

**7. How often does the attending physician compile observation diaries for patients in satisfactory condition?**

- A. twice a day
- B. daily
- B. every other day
- D. Once every three days
- D. only when the patient's condition worsens

**8. Prescribe treatment for pressure ulcers in the ischemic stage.**

- A) Treatment with ethyl 70% alcohol
- B) Treatment with vaseline oil
- C) Treatment with camphor alcohol
- D) Treatment with 5% potassium permanganate solution.

**9. Prescribe treatment for pressure ulcers in the necrosis stage.**

- A) Treatment with ethyl 70% alcohol
- B) Treatment with 5% potassium permanganate solution
- C) Dressings with Vishnevsky ointment

D) Treatment with camphor alcohol.

**10. What does the preliminary preparation of the operating field include during a planned operation?**

Pick all the correct answers

- BUT) Dry shaving hairline
- B) Putting on sterile linen
- IN) Complete sanitary and hygienic processing
- D) Treatment of the operating field with antiseptics

### **A TASK**

After being beaten on the head, the patient lost consciousness. Waking up, he got up and with difficulty came to the admission department of the hospital. On the body there are numerous abrasions and bruises from bruises. After 8 hours from the moment of injury, he again lost consciousness, covered with cold sticky sweat. Decreased blood pressure, increased pallor of the skin. Your actions? What research methods can help you in making a diagnosis?

### **COLLOQUIUM "CLINICAL RESEARCH METHODS"**

#### **OPTION No. 10**

**1. What sections are not included in the academic medical history of a surgical patient?**

**Pick all the correct answers**

- A. Preliminary diagnosis;
- B. Etiology and pathogenesis;
- B. Preoperative epicrisis;
- D. Data from additional research methods;
- D. Observation diary;
- E. Differential diagnosis;

**2. The patient was taken to the surgical department with a diagnosis of intestinal obstruction on the 3rd day from the onset of the disease. Complaints of repeated vomiting, general weakness, palpitations. Indicate the leading disorders in homeostasis requiring mandatory correction in the preoperative period.**

- 1) hypokalemia, hypochloremia.
- 2) hyponatremia, hypocalcemia.
- 3) hypoproteinemia.
- 4) hypovolemia.
- 5) anemia.

Choose the correct combination of answers: A - 2, 3; B - 1, 2, 3; B - 4, 5; G - 1, 4; D - all answers are correct.

3. When should you shave your skin before an elective surgery?

- 1) before admission to the hospital;
- 2) the day before the operation;
- 3) the evening before the operation;
- 4) in the morning of the day of the operation;
- 5) immediately before the start of the operation on the operating table.

4. What are bedsores called?

- A) Ulceration
- B) Necrosis of the skin only due to microcirculation disturbance from prolonged squeezing
- C) Inflammation and necrosis of the skin under the influence of fungal flora
- D) Aseptic necrosis of the skin and deep-lying tissues due to a violation of microcirculation from prolonged squeezing
- E) Any kind of necrosis with prolonged squeezing.

5. Select the main locations of the pressure ulcers.

Choose all the correct answers:

- A) Buttocks and sacrum
- B) Anterior chest wall
- C) Knee area
- D) Shoulder blades
- E) Heels
- E) The back of the head.

6. For the prevention of postoperative pneumonia use:

- 1) breathing exercises;
- 2) pain relievers;
- 3) infusion of large amounts of liquid;
- 4) neostigmine methyl sulfate;
- 5) banks and mustard plasters on the chest.

Choose the correct combination of answers: A - 1, 2, 5; B - 1, 2, 4; B - 1, 2, 5; G - 1, 3, 5; D - 2, 3, 4.

7. What is needed to empty the bladder in preparation for any type of surgery?

Pick all the correct answers

- BUT) Bladder catheterization for all patients
- B) Bladder catheterization if indicated
- IN) Spontaneous urination before surgery
- D) Emptying is not necessary for emergency surgery

8. Name the complications that occur from the wound in the early postoperative period.

Pick all the correct answers

- A) Bleeding
- B) Inflammation
- C) Ulceration
- D) Event

9. Select the most frequent types of bleeding in the early postoperative period.

Choose all the correct answers:

- A) Bleeding from the rectum
- B) External bleeding from the wound
- C) Bleeding along the drain
- D) Bleeding from acute stomach ulcers

10. When is the hairline shaved in preparation for the elective surgery?

- BUT) 1 day before surgery
- B) 12 hours before surgery
- IN) On the day of the operation in the morning
- D) On the operating table

### **A TASK**

Patient S. 75 years old suffers from ischemic heart disease, postinfarction cardiosclerosis, atrial fibrillation, circulatory failure. Was admitted routinely for surgical treatment of a hernia of the white line of the abdomen.

What preoperative preparation is required for successful patient treatment?

## COLLOQUIUM "CLINICAL RESEARCH METHODS"

### OPTION No. 11

**one.** The complex of infusion preparation before the operation includes: a) correction of the water-electrolyte balance; b) vvedenial of narcotic analgesics; c) tube enteral nutrition; d) correction of the BCC deficit; e) intramuscular administration of antibiotics; f) the introduction of specific immunostimulating drugs. Choose the correct combination of answers:

- 1) a, b.
- 2) in, p.
- 3) a, d.
- 4) d, d.
- 5) d, f.

2. The use of local hypothermia in the postoperative period contributes to:

- 1) cryodestruction of microbial bodies;
- 2) stopping capillary bleeding;
- 3) fast adhesion of the wound edges;
- 4) prevention of dehiscence of the edges of the wound;
- 5) prevention of thrombosis and embolism.

**3. Determine the sequence of examination of a patient with acute pathology of the abdominal organs: a) clarification of complaints and anamnesis of the patient; b) survey radiography of the abdominal organs; c) emergency laboratory tests of blood and urine; d) assessment of the patient's condition and physical examination of organs and systems; e) ultrasound of the abdominal organs; f) emergency laparoscopy. Choose the correct combination of answers:**

1. a, b, c, d, e, f.
2. e, a, d, c, b, f.
3. g, d, f, a, b, c.
4. b, d, f, a, c, e.
5. a, d, c, b, e, f.

4. Which of the following complications most often occurs after long-term and traumatic interventions on the abdominal organs?

- BUT) paresis of the gastrointestinal tract.
- B) peritonitis.
- IN) pneumonia.
- D) anuria.
- D) thromboembolism.

Choose the correct answer.

five. Highlight the main factors that determine the duration of the preoperative period.

- 1) the nature of the disease.
- 2) the volume of the upcoming operation.
- 3) the patient's condition.
- 4) type of pain relief.
- 5) the urgency of the operation.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 3, 4; B - 1, 3, 5; D - 2, 4, 5; D - 2, 3, 5.

6. With paresis of the gastrointestinal tract, all of the above measures are advisable, with the exception of:

- A) perirenal blockade;
- B) intravenous administration of hypertonic chloride solution sodium;
- B) the use of neostigmine methyl sulfate;
- D) hypertensive enema;
- D) massive antibiotic therapy.

Choose the correct answer.

7. Highlight the main factors that determine the duration of the preoperative period.

- 6) the nature of the disease.
- 7) the volume of the upcoming operation.
- 8) patient status.
- 9) type of pain relief.
- 10) the urgency of the operation.

Choose the correct combination of answers: A - 1, 2, 3; B - 2, 3, 4; B - 1, 3, 5; D - 2, 4, 5; D - 2, 3, 5.

## 8. What sections make up the subjective part of the medical history?

**Pick all the correct answers**

- A. Passport part;
- B. Complaints;
- B. History of the disease;
- D. history of life;
- D. Objective research;
- E. Data from additional research methods;

9. For prevention of postoperative venous thrombosis used: a) early activation of the patient; b) prolonged bed rest; c) elastic compression of the lower extremities; d) intermittent pneumatic compression; e) heparin ointment. Choose the correct combination of answers:

- 1) a, c, d.
- 2) b, c, d.

- 3) b, c, d.
- 4) a, c, d.
- 5) a, d, d.

10. In what case is gastric lavage performed in preparation for an emergency operation?

Pick all the correct answers

- BUT) Always
- B) If the patient ate less than 2 hours ago
- IN) If the patient ate less than 6 hours ago
- D) With diseases such as peritonitis, intestinal obstruction, etc.
- D) Never

### A TASK

A young man, during vigorous exercise, suddenly felt pain in the right side of the chest, shortness of breath. The patient has a history of bullous disease. What research methods will help in making a diagnosis?

## COLLOQUIUM "CLINICAL RESEARCH METHODS"

### OPTION No. 12

**one.** Preoperative preparation for emergency surgery includes: a) hygienic treatment of the skin in the operation area; b) shaving the operating field; c) dignitytion of the oral cavity; d) carrying out infusion therapy; e) a cleansing enema; f) spirometry; g) performing an ECG. Choose the correct combination of answers:

- 1) a B C.
- 2) d, e, f.
- 3) a, b, d, e.
- 4) a, b, c, f.
- 5) c, d, f.

2. On the first day after the operation, the following complications are possible: a) external bleeding; b) eventration; c) the formation of a hematoma in the wound; d) rhythm disturbance and cardiac arrest; e) wound suppuration. Choose the correct combination of answers:

- 1) a B C.
- 2) a, d, d.
- 3) a, c, d.
- 4) b, c, d.
- 5) everything is true.

**3. Select the main types of diagnoses:**

**Pick all the correct answers**

- A. preliminary;
- B. intermediate;
- B. clinical;



G. differential;

4. What is the duration of the early postoperative period from the moment of the operation?

- A) 7-9 days.
- B) 1-3 days.
- C) 3-5 days.
- D) 2 weeks.

five. Define the main tasks of the preoperative period.

- 1) clarification of the diagnosis.
- 2) determination of indications for surgery.
- 3) preparation of the patient for surgery.
- 4) determination of the timing and nature of the operation.
- 5) determining the scope of the operation and its duration.

Choose the correct answer. A - 1, 2, 3; B - 1, 3, 4, 5; B - 2, 3, 4, 5; G - 1, 2, 3, 4; D - all answers are correct.

6. What is the duration of the long-term postoperative period from the moment of the operation?

- A) From 3 weeks to 2-3 months
- B) 2 to 4 weeks
- C) From 10 days to 1 month
- D) 14-21 days

7. What is included in the premedication before an emergency operation?

- BUT) Sedatives and hypnotics together with narcotic analgesics 1.5-2 hours before surgery
- B) Narcotic analgesics and antispasmodics in 30-40 minutes. before surgery
- IN) Narcotic analgesics and atropine for 30-40 minutes. before surgery
- D) Narcotic analgesics and atropine 1.5-2 hours before surgery
- D) All of the above is wrong

**8. Which of the following does not apply to endoscopic research methods?**

- A. Bronchoscopy;
- B. Irrigoscopy;
- B. Esophagogastrosocopy;
- D. Colonoscopy;
- D. Sigmoidoscopy;

nine. The catabolic phase of the patient's postoperative state is characterized by: a) activation of the sympathetic-adrenal system; b) an increase in blood glucose levels; c) increased breakdown of adipose tissue; d) an increase in the vital capacity of the lungs; e) a decrease in urine output. Choose the correct combination of answers:

- one) a B C.
- 2) in, d.
- 3) a, c, d.
- four) a, b, c, e.
- five) everything is true.

10. What is needed in preparation for a planned operation to prevent asphyxiation by the contents of the stomach during anesthesia?

- BUT) Gastric lavage
- B) The last meal on the eve of the day of the operation is at 17-18 h.
- IN) Hunger on the morning of the operation
- D) You don't need to do any of the above.

#### **A TASK**

Patient R. was admitted with complaints of vomiting of coffee grounds, melena. The patient's stomach was washed and an emergency gastro-duodenoscopy was performed, on which an ulcer of the lesser curvature of the stomach was found with a high risk of recurrent bleeding. In view of stopping bleeding, the patient was prescribed hemostatic and antiulcer therapy. Dynamic observation with a control study of the stomach in dynamics. What needs to be done to better control bleeding recurrence?

### **COLLOQUIUM "CLINICAL RESEARCH METHODS"**

#### **OPTION No. 13**

one. The development of pneumonia in the postoperative period is facilitated by: a) old age; b) hypoventilation of the lungs during surgery; c) diet features; d) inadequate pain relief after surgery; e) long horizontal position; f) oxygen inhalation; g) intravenous administration of antibiotics; h) breathing exercises; i) chronic heart failure. Choose the correct combination of answers:

- 1) a, b, c, d, e.
- 2) b, e, f, g.
- 3) b, h, h, i.
- 4) a, b, d, e, i.
- 5) a, b, d, f, i.

**2. Ultrasound examination is indicated for patients with the following diseases: a) stomach cancer; b) acute cholecystitis; c) duodenal ulcer; d) urolithiasis; e) hemorrhoids; f) phimosis; g) nodular goiter; h) duodenitis. Choose the correct combination of answers:**

1. b, d, e.
2. a, b, d, g.
3. g, h.
4. in, g.
5. a, e, g.

3. When is it necessary to obtain the patient's consent for the operation?

- BUT) Always
- B) Always, except when the patient is unconscious, and emergency surgery is necessary
- IN) For high-risk operations
- D) Not necessary, the consent of relatives is enough
- D) Not necessary

4. In what case is the operation called combined?

- A) Intervention is performed on two or more organs for various diseases
- B) Intervention is performed on several organs in order to treat one disease
- C) The intervention is divided in time into separate stages.

5. What is typical for an uncomplicated early postoperative period?

Pick all the correct answers

- A) Pain in the area of the surgical wound
- B) High fever in the first week
- C) Transient changes in blood and urine tests
- D) Chills, shortness of breath.

6. What is used to cleanse the intestines in preparation for a planned operation?

BUT) Only laxatives

B) Cleansing enemas the night before and the morning of surgery

IN) Siphon enema in the evening and morning on the day of surgery

D) Laxatives (if indicated) and cleansing enemas the evening before and in the morning before surgery

7. Select the main stages of surgical treatment of patients.

Pick all the correct answers

BUT) Preoperative preparation

B) Dispensary observation

IN) Postoperative period

D) Surgery

**8. A separate description in the medical history of local pathological status (st. localis) is mandatory for the following diseases: a) obliterating atherosclerosis of the vessels of the lower extremities; b) post-injection abscess of the gluteal region; c) varicose veins of the lower extremities; d) strangulated inguinal hernia; e) gastric ulcer and 12 duodenal ulcer; f) acute calculous cholecystitis; g) acute appendicitis; h) purulent pleurisy; i) breast tumors. Choose the correct combination of answers:**

1. a, b, c, d, and.

2. a, b, e, f, h.

3. c, d, h, and.

4. e, f, h, i.

5. everything is true.

nine. Prevention of deep vein thrombosis after surgery includes: a) antibiotic therapy; b) bandaging a limb; c) prolonged bed rest after surgery; d) early activation of patients after surgery; e) the use of anticoagulants. Choose the correct combination of answers:

1) a, b.

2) d, d.

3) b, c, d.

4) b, d, d.

5) a, c, d.

10. What is used to cleanse the intestines in preparation for an emergency operation?

- BUT) Cleansing enemas 0.5-1 hour before surgery
- B) Taking laxatives
- IN) Cleansing enema immediately before surgery
- D) You don't need to do anything

### A TASK

A woman with a large umbilical hernia, who is obese IV degree, will have hernia repair routinely. The patient was examined, in the conditions of the polyclinic, an ECG, a general blood test, a general urine test, a biochemical blood test, an overview chest X-ray were performed.

What preoperative preparation does the patient need? What additional research methods need to be performed?

## COLLOQUIUM "CLINICAL RESEARCH METHODS"

### OPTION No. 14

one. The anabolic phase of the course of postoperative disease is characterized by: a) restoration of muscle mass; b) lysis of proteins and the accumulation of their decay products; c) activation of the hormonal system; d) restoration of nitrogen balance; e) the intake of exogenous energy that exceeds the needs of the body. Choose the correct combination of answers:

- 1) a, d, d.
- 2) a, b, d
- 3) b, c, d.
- 4) b, c, d.
- 5) a B C.

**2. Which of the listed provisions are reflected in the history of the development of the disease (anamnesis morbi)?**

**Pick all the correct answers**

- A. Biographical information;
- B. Date and hour of onset of the disease;
- B. The first manifestations of the disease;
- D. Factors contributing to the onset of the disease;
- D. Heredity;
- E. Housing conditions and hygiene regime;

**3. What is the prevention of wound infection in the preoperative period?**

- 9) sanitation of the oral cavity.
- 10) hygienic bath.
- 11) processing of the operating field.
- 12) change of linen.
- 6) pyoderma treatment.

Choose the correct combination of answers: A - 1, 2, 3, 4; B - 2, 3, 4, 5; B - 1, 2, 4, 5; G - 1, 4, 5; D - all answers are correct.

4. What does the toilet of an uncomplicated postoperative wound include?

- A) Changing the dressing and treating the edges of the wound with antiseptics
- B) Easy parting of the edges for the purpose of revision
- C) Injecting the wound with antibiotics
- D) Washing the wound with hydrogen peroxide solution

5. Select the main stages of surgical treatment of patients.

Pick all the correct answers

- BUT) Preoperative preparation
- B) Dispensary observation
- IN) Postoperative period
- D) Surgery

6. Indicate the factors influencing the development of complications in the postoperative period.

Pick all the correct answers

- A) The presence of a postoperative wound
- B) Insufficient nutrition.
- C) Forced position
- D) The effect of anesthesia.

7. Select interventions to reduce pain.

Pick all the correct answers

- A) The use of analgesics
- B) The use of diuretics
- C) Exposure to cold
- D) Using various techniques to facilitate movement when turning, getting out of bed, walking
- E) The use of prolonged epidural anesthesia.

eight. Prevention of deep vein thrombosis after surgery includes: a) antibiotic therapy; b) bandaging a limb; c) prolonged bed rest after surgery; d) early activation of patients after surgery; e) the use of anticoagulants. Choose the correct combination of answers:

- 1) a, b.
- 2) d, d.
- 3) b, c, d.

- 4) b, d, d.
- 5) a, c, d.

nine. The earlypostoperative period ends:

BUT) after elimination of earlypostoperative complications;

B) after removing the stitches from the surgical wound;

IN) after the healing of the surgical wound;

D) after the patient is discharged from the hospital;

D) after the restoration of the patient's working capacity.

Choose the correct answer.

10. What is used to cleanse the intestines in preparation for a planned operation?

BUT) Only laxatives

B) Cleansing enemas the night before and the morning of surgery

IN) Siphon enema in the evening and morning on the day of surgery

D) Laxatives (if indicated) and cleansing enemas the evening before and in the morning before surgery

#### **A TASK**

A 23-year-old patient was admitted with complaints of pain in the lower abdomen of an indeterminate nature. There are no symptoms of peritoneal irritation. What research methods and in what sequence will help in making a diagnosis?