

Application to the work program

Federal State Budgetary Educational Institution of Higher Education
"Privolzhsky Research Medical University"
Ministry of Health of the Russian Federation

BANK OF ASSESSMENT TOOLS

ACTUAL QUESTIONS IN SURGERY

Speciality: **31.05.01 GENERAL MEDICINE**

Department: **FACULTY OF SURGERY AND TRANSPLANTOLOGY**

Form of study: **FULL-TIME**

Nizhny Novgorod
2021

1. Fund of assessment tools for current monitoring of progress, intermediate certification of students in the discipline

This Bank of assessment tools (BAT) for the discipline "Actual Questions in Surgery" is an integral part of the work program of the discipline " Actual Questions in surgery ". This BAT is subject to all the details of the approval presented in the WPD for this discipline.

2. List of evaluation tools

To determine the quality of mastering the educational material by students in the discipline " Current issues in surgery ", the following assessment tools are used:

№	Estimator	Brief description of the evaluation tool	Presentation of the evaluation tool in the BAT
1	Essay	The product of the student's independent work, which is a summary in writing of the results of the theoretical analysis of a certain scientific (educational and research) topic, where the author reveals the essence of the problem under study, gives different points of view, as well as his own views on it.	List of essay topics
2	Report	The product of the student's independent work, which is a public performance on the presentation of the results of solving a specific educational, practical, educational, research or scientific topic	Topics of reports, messages
3	Case report	Clinical examination of a surgical patient and registration of the results of the examination in the form of a medical educational history of the disease	List of the main surgical nosologies for writing a medical history
4	Test	A system of standardized tasks that allows you to automate the procedure measuring the level of knowledge and skills of the student	Test fund assignments
5	Business/role play	Joint activity of a group of students and a teacher under the control of a teacher in order to solve educational and professionally oriented tasks through game simulation of a real problem situation. Allows you to evaluate the ability to analyze and solve typical professional problems.	Theme (problem), concept, roles and expected outcome for each game
6	Control work	A tool for testing skills to apply the acquired knowledge to solve problems of a certain type on a topic or section	A set of control tasks by options
7	Situational tasks	A method of control that allows you to assess the criticality of thinking and the degree of assimilation of the material, the ability to apply theoretical knowledge in practice.	Task List

3. List of competencies indicating the stages of their formation in the process of mastering the educational program and types of assessment tools

Code and wording of	Stage formation of	Controlled sections of the discipline	Evaluation tools

competence	competence		
UC-1, UC-5, UC-8 PC-5, PC-6, PC-8, PC-20, PC-21, PC-22	Current	Section 1. Emergency abdominal surgery cavities Topic 1.1. Acute appendicitis Topic 1.2. Diseases of the liver and gallbladder ways Topic 1.3. Diseases of the pancreas glands	Essay Report Case report Test Business/role play Control work Situational tasks
		Topic 1.4. Stomach diseases and duodenum Topic 1.5. Bowel disease and mesentery Topic 1.6. Strangulated hernia Topic 1.7. Abdominal injury	Essay Report Case report Test Business/role play Control work Situational tasks
UC-1, UC-5, UC-8 PC-5, PC-6, PC-8, PC-20, PC-21, PC-22		Section 2. Coloproctology Topic 2.1. Diseases of the thin and colon Topic 2.2. Diseases of the rectum and perianal area	Essay Report Case report Test Business/role play Control work Situational tasks
UC-1, UC-5, UC-8 PC-5, PC-6, PC-8, PC-20, PC-21, PC-22		Section 3. Surgical infection Topic 3.1. General principles of treatment festering wounds Topic 3.2. Skin and subcutaneous infections fiber Topic 3.3. Bone and joint infections Topic 3.4. Surgical sepsis Topic 3.5. Peritonitis Topic 3.6. Infections of the glandular organs Topic 3.7. Syndrome of "diabetic feet"	Essay Report Case report Test Business/role play Control work Situational tasks
UC-1, UC-5, UC-8 PC-5, PC-6, PC-8, PC-20, PC-21, PC-22		Section 4. Plan surgery Topic 4.1. Hernias Topic 4.2. Diseases of the liver, gallbladder bladder and bile ducts Topic 4.3. Diseases of the esophagus, stomach and duodenum guts Topic 4.4. Diseases of the pancreas glands Topic 4.5. Minimally invasive surgery	Essay Report Case report Test Business/role play Control work Situational tasks
UC-1, UC-5, UC-8 PC-5, PC-6, PC-8, PC-20, PC-21, PC-22	Intermediate	Section 1. Emergency abdominal surgery Section 2. Coloproctology Section 3. Surgical infection Section 4. Plan surgery	Test Situational tasks

4. The content of the evaluation means of current control

Current control is carried out by the teacher of the discipline when conducting classes in the form of: essay, report, case report, test, business/role play, control work, situational tasks.

4.1 Topics of essays for assessing competencies: UC-1, UC-5, UC-8, PC-5, PC-6, PC-8, PC-20, PC-21, PC-22

1. Acute appendicitis
2. Diseases of the liver and gallbladder ways
3. Diseases of the pancreas glands
4. Stomach diseases and duodenum
5. Bowel disease and mesentery
6. Strangulated hernia
7. Abdominal injury
8. Diseases of the thin and colon
9. Diseases of the rectum and perianal area
10. General principles of treatment festering wounds
11. Skin and subcutaneous infections fiber
12. Bone and joint infections
13. Surgical sepsis
14. Peritonitis
15. Infections of the glandular organs
16. Syndrome of "diabetic feet"
17. Hernias
18. Diseases of the liver, gallbladder bladder and bile ducts
19. Diseases of the esophagus, stomach and duodenum guts
20. Diseases of the pancreas glands
21. Minimally invasive surgery

4.2. Report topics for competency assessment: UC-1, UC-5, UC-8, PC-5, PC-6, PC-8, PC-20, PC-21, PC-22

1. Acute appendicitis. Classification. Clinical picture, diagnosis, differential diagnosis, treatment.
2. Cholelithiasis. Acute cholecystitis. Definition of the concept, etiology, pathogenesis, clinical picture, diagnosis. Indications and contraindications for surgical treatment. The volume and methods of surgical intervention.
3. Acute pancreatitis. Concept definition. Etiology. Pathogenesis. Classification of acute pancreatitis. clinical picture. Variants of the course and stage of the disease. Clinical signs of purulent-necrotic pancreatitis. Diagnosis of acute pancreatitis. Indications for surgical treatment.
4. Complications of peptic ulcer of the stomach and duodenum: pyloric stenosis, penetration, perforation, gastric bleeding.
5. Diverticula of the small and large intestine.
6. Intestinal fistulas. Etiology. Causes of intestinal fistulas.
7. Complications of hernias of the anterior abdominal wall. Types and mechanism of infringement, pathological changes in the incarcerated organs.
8. Wounds and injuries of the abdomen. Frequency and classification of injuries and injuries of the abdomen. Symptoms of penetrating wounds of the abdomen.
9. Tumors of the colon. Etiology, pathogenesis, classification, clinical forms, diagnosis, treatment, prognosis.
10. Colon diverticulosis.
11. Diseases of the rectum and anal canal. Haemorrhoids.
12. Cryptite. Papillitis. Anal fissure. Anal itching.
13. Acute paraproctitis.

14. Wounds. Definition, signs of a wound. Classification. Complications of wounds. Etiology and pathogenesis of the wound process. Stages and clinic of the wound process.
15. Primary surgical treatment of the wound. Types, indications and contraindications, volume, sequence of execution.
16. Acute purulent diseases of the skin and subcutaneous tissue. Etiology and pathogenesis of surgical infection of soft tissues. Epidemiology of diseases. Characterization of causative agents of surgical infections of soft tissues.
17. Folliculitis. Furuncle. Carbuncle. Hydradenitis. Lymphangitis. Lymphadenitis. Erysipelas.
18. Purulent diseases of the hand. Felon.
19. Osteomyelitis. Etiology, pathogenesis, classification. Forms of acute hematogenous osteomyelitis.
20. Etiology and pathogenesis of surgical sepsis. Clinical manifestations and diagnosis.
21. Phases of the course of peritonitis. Symptoms of peritonitis. Clinic and diagnosis of peritonitis. General principles of treatment.
22. Mumps. Etiology, pathogenesis, clinical manifestations, treatment.
23. Definition of "diabetic foot" syndrome, risk factors, etiology, classification (neuropathic, neuro-ischemic and ischemic forms), pathogenesis. Classification of foot lesions depending on the depth of tissue destruction.
24. Clinical features of a sliding hernia. Additional research methods for sliding hernia. Differential diagnostics.
25. Nonparasitic liver cysts. Parasitic diseases of the liver: Echinococcosis. Alveococcosis. Opisthorchiasis.
26. Portal hypertension.
27. Diverticula of the esophagus, stomach and duodenum.
28. Esophageal strictures: definition, etiopathogenesis and degree of narrowing of the esophagus, clinic, diagnosis, methods of treatment of esophageal strictures, indications and types of esophageal plastic surgery.
29. Peptic ulcer of the stomach and duodenum.
30. Cysts of the pancreas.
31. Fistulas of the pancreas.
32. Benign tumors of the pancreas.
33. Malignant tumors of the pancreas.
34. Laparoscopic appendectomy and cholecystectomy.
35. Percutaneous transhepatic puncture biopsy of the liver and pancreas under ultrasound control.

4.3. Writing a case history for competency assessment: UC-1, UC-5, UC-8, PC-5, PC-6, PC-8, PC-20, PC-21, PC-22

Work at the bedside of the patient: collection of complaints, anamnesis, examination of the objective status. Work with medical records. Registration of the results of the examination of a surgical patient in the form of a medical educational history of the disease.

4.4. Situational for assessing competencies: UC-1, UC-5, UC-8, PC-5, PC-6, PC-8, PC-20, PC-21, PC-22

Situational task 1

A patient with an extensive purulent wound underwent antibiotic therapy with a combination of antibiotics penicillin and gentamicin, which were prescribed immediately after the patient was admitted to the department. After 2 days, the patient began to be disturbed by itching of the skin, swelling of the tissues of the face appeared.

What type of antiseptic was used in this case? What complication has developed? How can such a complication be avoided?

Situational task 2

After surgery for acute appendicitis in a patient, 24 years old, the next day the condition was determined to be of moderate severity. The patient experienced moderate pain in the area of the surgical wound. Body temperature 37.40 C. Locally: the abdomen is not swollen, participates in the act of breathing, soft on palpation, palpation is painful only at the site of surgery. Shchetkin-Blumberg's symptom is negative. Sluggish peristalsis is determined. The dressing was moderately soaked with hemorrhagic discharge.

1. Is it necessary to bandage this patient?
2. What are the indications for dressing this patient?
3. What is a dressing?
4. What bandage should be applied to the patient when bandaging?

Situational task 3

A 45-year-old patient, when contacting the emergency room, has a cut wound in the area of the anterior surface of the right thigh, received at home 2 hours ago. After the operation "primary surgical treatment" the patient should apply a bandage.

1. What bandages are applied to the middle part of the thigh?
2. What dressing will you choose in this situation?
3. Explain your choice?
4. When should the patient be bandaged?

Situational task 4

Patient N., aged 47, was operated on for a right-sided inguinal hernia. The operation was performed under local anesthesia. On the 4th day, there was a deterioration in the condition: an increase in temperature to subfebrile values and the appearance of local pain in the area of the postoperative wound.

1. Guess what complication could develop in the patient in the postoperative period?
2. What research methods can confirm or refute the alleged complications?
3. Name the main reasons contributing to the development of this complication.
4. Tactics of treatment.

Situational task 5

A 65-year-old patient was operated on for stage 3 stomach cancer. (subtotal resection of the stomach). On the 6th day after surgery, the patient felt worse: febrile body temperature appeared and pain in the area of the postoperative wound intensified. Locally: the bandage is very abundantly wet with serous discharge, palpation of the abdomen is determined by local pain in the area of the surgical wound and the presence of a rumbling protrusion under the seams.

1. Estimated diagnosis of a complication that developed in the postoperative period in a patient.
2. What methods can reject or confirm it?
3. Name the predisposing factors for the development of this complication.
4. Treatment strategy for this patient.

Situational task 6

A 35-year-old patient was operated on for a penetrating stab wound of the abdominal cavity with damage to the small intestine. On the 8th day after surgery, the patient developed nausea, frequent vomiting, abdominal pain of a cramping nature. Locally: on palpation, there is a pronounced tension of the abdominal muscles, the abdomen is asymmetrical, peristalsis is increased, a positive symptom of Shchetkin-Blumberg.

1. Suspected complication that developed in the patient in the postoperative period.
2. Patient examination plan.
3. Medical tactics.
4. Prognosis

Situational task 7

A 58-year-old patient was operated on for acute cholecystitis (cholecystectomy). In the postoperative period the next day he complained of pain in the lower abdomen. Locally: on examination, there is a swelling above the womb, palpation is determined by an elastic, moderately painful, rounded formation, giving a dull percussion sound.

1. Guess what complication of the urinary organs has developed in the patient?
2. Name its possible causes.
3. Perform differential diagnosis with similar conditions.
4. Urgent Care.

Situational task 8

After surgery for destructive pancreatitis, the patient complained on the 4th day: shortness of breath, dry cough, stabbing pains in the chest, excessive sweating. Objectively: during percussion of the chest, there is dullness of percussion sound on the left, having the shape of a curved line (Damuazo line), auscultatory examination reveals a sharp decrease in respiratory sounds, voice trembling is weakened.

1. Estimated diagnosis.
2. Diagnostic methods.
3. Principles of treatment.
4. Prevention methods.

Situational task 9

On the 3rd day after surgery for duodenal bleeding (gastric resection), a patient complained of increasing pain in the area of the postoperative wound, fever up to 39°C, vomiting of stagnant stomach contents. Objectively: pallor of the skin, tachycardia, hypotension, severe pain in the upper abdomen, a positive Shchetkin-Blumberg symptom.

1. Suggest the nature of the postoperative complication in this patient.
2. Additional diagnostic methods. What else needs to be assessed when examining a patient?
3. Further treatment tactics.

Situational task 10

A 55-year-old patient suffering from deforming osteoarthritis of the knee and hip joints and grade 4 obesity received an intramuscular injection of a non-steroidal anti-inflammatory drug in a polyclinic. A few days later, the patient felt pain in the gluteal region, her body temperature increased to 38-39°C. Objectively: there is hyperemia and infiltration of the skin in the gluteal region, local temperature rise, sharp pain on palpation, fluctuation.

1. Your diagnosis, a complication of which manipulation is the disease
2. What is the reason for its occurrence, how to find a place for an intramuscular injection
3. What are the features of its implementation in obese patients.

Situational task 11

A 50-year-old woman is troubled by arching pains in her right mammary gland, constant temperature up to 38-39°C, chills, weakness. Objectively: the condition is of moderate severity, the skin of the mammary glands is dry, there are multiple small cracks in the nipples, pronounced hyperemia is determined in the lower outer quadrant of the right mammary gland.

On palpation, local hyperthermia is noted, a painful infiltrate up to 5x3 cm, in the center of which a softening area with fluctuation is determined.

1. Your diagnosis, the etiology of the disease, what additional research methods can be used to clarify the diagnosis
2. Describe the rules for their implementation
3. Suggest a plan for the study of the discharge obtained.

Situational task 12

A woman addressed a polyclinic surgeon with complaints about the presence of a dense, low-painful formation in the right mammary gland. Objectively: the shape of the mammary gland does not differ from the left one, palpation of the affected area is not painful, a dense mass extending deep into the gland is determined subcutaneously.

1. Probable diagnosis, examination plan to clarify the diagnosis
2. Describe the method of its implementation
3. What method can be used to more accurately perform diagnostic manipulation
4. What study of the obtained material should be performed.

Situational task 13

A 32-year-old patient was admitted to the surgical department on an emergency basis 6 hours after the injury. From the anamnesis: he was wounded with a piercing-cutting object in the left half of the chest. Disturbed by pain at the site of injury, shortness of breath, severe weakness, dizziness. On physical examination, there is a sharp pallor of the skin, palpation is sharply painful at the site of injury, bleeding from the wound is noted, dullness of percussion sound in the lower parts of the right lung, weakening of voice trembling, auscultatory breathing is not audible. On the radiograph: darkening in the lower parts of the pleural cavity.

1. What complication developed in the patient
2. What medical manipulation can be applied to clarify the diagnosis
3. What are the possible complications
4. In what place it is necessary to make, what medical measures are necessary in case of its ineffectiveness.

Situational task 14

The patient delivered to the emergency room 7 hours ago received a bruised wound of the right leg. On examination, it turned out that the wound measuring 5 x 3 x 1 cm has uneven edges and is contaminated with earth particles. The surgeon on the operating table, after processing the surgical field, excised the edges and bottom of the wound, stopped the bleeding, applied primary sutures and released the patient for outpatient treatment.

1. Specify what mistakes the surgeon made during the primary surgical treatment?

Situational task 15

A 20-year-old patient received a stab wound to the chest. 8 hours after the injury, he was taken to the surgical department. During an emergency revision of the wound, it turned out that it did not penetrate into the pleural cavity. The doctor excised the edges and the bottom of the wound, stopped the bleeding, washed it with a solution of furacilin and stitched it. Immediately, the patient was injected subcutaneously with tetanus toxoid.

1. What types of antiseptics are used to help the patient? Which groups of antiseptics do they belong to?

Situational task 16

A 67-year-old patient has just been operated on for paraproctitis. He should be bandaged.

1. Which of the fixing bandages should be used in this case?

2. What indications for dressing change can be expected in this patient?
3. Can there be indications for bandaging a few hours after the operation?
4. Do I need to change the dressing the next day after the operation?

Situational task 17

A 17-year-old patient came to the emergency room with complaints of pain in the left shoulder joint, difficulty in movement in the left shoulder joint. Anamnesis: fall on the elbow 1 hour 15 minutes. back. An objective examination revealed the following symptoms: deformity of the joint of the affected side, the head of the humerus on the left is determined anterior to the articular cavity, the arm is abducted, when you try to put it in the correct position, it immediately returns to its previous position, the relative size of the limb is elongated. A traumatologist diagnosed him with a dislocation of the left shoulder. Radiological diagnosis was confirmed. After shoulder repositioning:

1. What dressings can be applied in this case?
2. What is the name of this dressing according to its functional purpose?
3. Name the soft immobilizing bandages applied to the upper limb.

Situational task 18

A 56-year-old patient has a chopped wound on the scalp (1x4 cm). After the operation "primary debridement" is it necessary to apply a bandage to the wound?

1. What dressings are applied to the scalp?
2. Which dressing will you choose?
3. Explain the motivation for the choice?
4. How is it in relation to the patient at the time of applying the bandage?
5. When should the dressing be changed for the first time?

Situational task 19

An 18-year-old patient has a bruised wound (1x1 cm) in the chin area. After the operation "primary surgical treatment of the wound" it is necessary to apply a dressing to the wound.

1. Name the ways of possible fixation of the material on the chin?
2. Choose one of the ways in this case.
3. Explain the correctness of the choice.

Situational task 20

Patient V., aged 59, was operated on for decompensated pyloroduodenal stenosis, gastric resection was performed. On the 3rd day after the operation, the condition worsened: the temperature rose to febrile values, an unproductive cough appeared, shortness of breath, and a "blackout" on the chest radiograph, corresponding to the lower lobe of the left lung.

1. Suggested diagnosis
2. List the diagnostic methods for this complication (clinical, laboratory and instrumental).
3. Name the medicines indicated in this case.
4. Name the preventive measures for this complication.

Situational task 21

A 59-year-old patient was operated on for obstructive intestinal obstruction. In the postoperative period on the 4th day there was a cough with discharge of mucopurulent sputum, remaining subfebrile condition. On examination, he complains of coughing, shortness of breath, a feeling of congestion in the chest. On auscultation: "harsh breathing", moist rales, NPV = 20 per minute.

1. Name the complication that developed in the postoperative period (postoperative bronchitis).
2. List additional diagnostic methods.

3. Treatment plan, tactics.
4. Prevention of this complication in inpatients.

Situational task 22

A 45-year-old patient suffering from hypertension during a hypertensive crisis was given an injection of magnesium sulfate by a neighbor. A few days later, the patient felt pain in the gluteal region, her body temperature rose to 39°C. At the appointment with the surgeon of the polyclinic in the gluteal region, hyperemia and infiltration of the skin, local fever, sharp pain on palpation, indistinct fluctuation.

1. Your diagnosis, a complication of which manipulation is the disease
2. What is the reason for its occurrence
3. What manipulation can be performed in order to clarify the diagnosis
4. What is the further treatment.

Situational task 23

A 70-year-old patient suffering from acute bronchopneumonia has increased dyspnea. Physical examination revealed dullness of percussion sound in the lower sections, weakening of voice trembling, auscultatory breathing is not audible.

1. What complication has developed in the patient
2. What diagnostic manipulations can be used to clarify the diagnosis
3. What studies of the obtained material can be performed
4. What therapeutic measures are needed, what needs to be supplemented or how to change the treatment.

Situational task 24

A 40-year-old patient has recently developed difficulty in swallowing and a feeling of a foreign body in the neck. Objectively: the condition is satisfactory, palpation on the anterior surface of the neck in the area of the right lobe of the thyroid gland reveals a dense rounded mobile formation.

1. Your presumptive diagnosis, what causes difficulty in swallowing
2. What research methods are needed to clarify the diagnosis, a treatment plan.

Situational task 25

A 50-year-old patient, suffering from inguinal hernia for 3 years, was delivered to the emergency department. A day ago, the hernia was incarcerated. The patient, being at home, tried to correct the hernia himself. He did not succeed. The patient's condition worsened, and he decided to go to the clinic. During a hygienic bath in the emergency department, the hernia spontaneously reduced. Sick felt completely healthy and was allowed to go home. 5 hours later it was delivered again, with symptoms of peritonitis.

1. What is the doctor's mistake?
2. What are the options for the course of the disease when the hernia is reduced?
3. Which one should be appropriate tactics of the doctor?

Situational task 26

A 48-year-old patient was admitted to the hospital because of sudden profuse hematemesis. No indications of stomach disease in the anamnesis could not be established. Considered myself healthy. He suffered from Botkin's disease 3 years ago. The patient's brother suffers from pulmonary tuberculosis. The general condition is satisfactory.

1. With what diseases will you have to make a differential diagnosis?
2. What will be your actions upon admission of such a patient?
3. What additional research methods can be applied at the height of bleeding for diagnosis clarification?

Situational task 27

A 41-year-old patient, a hunter, complains of heaviness in the right hypochondrium. Other complaints no. In the anamnesis a year ago there were causeless urticaria and itching of the skin. On examination, the edge of the liver palpated 3 cm below the costal arch, it is rounded, painless. Another pathology about failed to discover. The temperature is normal. On x-ray, it is determined protrusion in the area of the right dome of the diaphragm of a hemispherical shape.

1. What disease should be considered in this case?
2. What additional studies can help in making a diagnosis?
3. How to treat the patient?

Situational task 28

A 67-year-old patient was admitted with complaints of the impossibility of passage through the esophagus of solid food. Bread is soaked and washed down with water. Meat eats only pureed. Very thin, weak. Is ill 6 months. Dysphagia is on the rise. On examination, he was severely emaciated. The skin is dry. Above the left clavicle is determined by the lymph node 1x2 cm, dense. The voice is hoarse. There is a narrowing of the right pupil, the upper eyelid is lowered, the eyeball sinks. X-ray determined the limitation in the mobility of the right dome of the diaphragm.

1. What is your preliminary diagnosis?
2. What additional research methods can confirm it?
3. What is the tactics in the treatment of this patient?

Situational task 29

A 30-year-old patient, who considers himself perfectly healthy, during a preventive examination in the upper lobe of the right lung, a rounded homogeneous shadow with clear boundaries 6 cm in diameter was found.

1. What disease can be assumed?
2. What investigations will you conduct for differential diagnosis?

Situational task 30

A 44-year-old patient was admitted to the hospital as an emergency. I fell ill suddenly. There was profuse repeated hematemesis. The patient was suddenly weakened. From the anamnesis it was possible to find out that he had been abusing alcohol for many years. When examining a patient, pay attention large hard spleen. The liver was not palpated.

1. What can be the source of bleeding?
2. Between which diseases should a differential diagnosis be made?

4.5. Test questions for assessing competencies: UC-1, UC-5, UC-8, PC-5, PC-6, PC-8, PC-20, PC-21, PC-22

1. What is a mechanical antiseptic?
 - a) irrigation of the wound with a solution of hydrogen peroxide;
 - b) drainage of the wound with a gauze swab;
 - c) removal of non-viable tissues from the wound;
 - d) immobilization of the limb with a plaster cast.
2. Give the most complete correct answer: bleeding is an outpouring of blood:
 - a) to the external environment;
 - b) in the body cavity;
 - c) in body tissues;
 - d) in tissues, body cavities or in the external environment;
 - e) into the external environment and body cavities.

3. What are the main groups divided into all methods of stopping bleeding?
 - a) temporary, final;
 - b) physical, chemical;
 - c) mechanical, biological
 - d) reliable, unreliable;
 - e) pre-medical, medical.

4. What is the importance of antigens and antibodies of the ABO system in blood transfusion practice?
 - a) characterize the state of the organism;
 - b) determine the compatibility of transfused blood;
 - c) are of no fundamental importance;
 - d) allow to determine the required amount of blood transfusion;
 - e) all of the above are true.

5. When transfusing blood to patients who are in a state of anesthesia:
 - a) compatibility tests are carried out in full;
 - b) no biological test is carried out;
 - c) only a biological test is carried out;
 - d) compatibility is determined only by the ABO system;
 - e) compatibility is determined only by the Rh factor.

6. As a result of prolonged compression of the limbs, all can be observed, except:
 - a) injury to the nerve trunks;
 - b) ischemia of a limb or its segment;
 - c) venous congestion;
 - d) traumatic asphyxia;
 - e) intravascular coagulation.

7. Specify the symptom of soft tissue injury of the head:
 - a) vomiting;
 - b) loss of consciousness;
 - c) amnesia;
 - d) anisocoria;
 - e) subcutaneous hematoma.

8. What is characteristic of external valvular / strain / pneumothorax?
 - a) emphysema of soft tissues of the wound area;
 - b) mediastinal balloting;
 - c) compression of the lung of the opposite side;
 - d) displacement of the mediastinum towards the collapsed lung;
 - e) displacement of the mediastinum in the opposite direction.

9. The most common dislocation is:
 - a) lower jaw
 - b) clavicle;
 - c) shoulder;
 - d) hips;
 - e) in the ankle

10. The patient has an open fracture of the leg bones due to a blow by the front bumper of a car. What type of fracture is most likely in this case?
- hammered;
 - compression;
 - multisplintered;
 - detachable;
 - helical.
11. Specify the time of fracture reposition in a patient with shock symptoms:
- after performing a novocaine blockade of the fracture area;
 - after removing the patient from the state of shock;
 - after the start of intravenous transfusion;
 - immediately after the delivery of the patient to the hospital;
 - at the time of first aid.
12. At the scene of the incident, the victim in a state of clinical death from exposure to electric current is shown all the measures except:
- artificial lung ventilation;
 - closed heart massage;
 - injection into the cavity of the heart 6-7 ml of a 7.5% solution of potassium chloride;
 - defibrillation of the heart;
 - tracheotomy.
13. According to infection, wounds are distinguished:
- purulent, aseptically, poisoned;
 - aseptically, scalped, purulent;
 - bitten, freshly infected, aseptically;
 - clean, freshly infected, infected;
 - purulent, freshly infected, aseptically.
14. The primary delayed suture is applied to the wound at the following times:
- 3-4th day;
 - 5-6th day;
 - 8-15th day;
 - immediately after the primary surgical treatment;
 - 20-30th day.
15. Typical local signs of gas gangrene are:
- inflammatory reaction, necrosis, edema, intoxication;
 - absence of inflammatory reaction, edema, necrosis;
 - edema, lymphangitis;
 - elephantiasis;
 - leukocytosis, bacteremia, subfascial phlegmon.
16. With conservative treatment of trophic ulcers of the limb, the following are necessary:
- bed rest, position with a lowered limb;
 - cessation of the outflow of discharge from the ulcer into the bandage;
 - careful dressing of the ulcerative surface and skin around the ulcer;
 - dressings with salicylic ointment;
 - applying a warm compress to the ulcer.
17. Which of the drugs should be recommended for candidomycosis?

- a) monomycin;
 - b) sulfadimezin;
 - c) nystatin;
 - d) streptomycin;
 - e) penicillin.
18. The purulent wound was drained with a tampon with a hypertonic saline solution. What type of antiseptic is used?
- a) chemical;
 - b) biological;
 - c) mechanical;
 - d) physical;
 - e) mixed.
19. Which of the listed therapeutic measures are related to the methods of biological antiseptics?
- a) primary surgical treatment of the wound;
 - b) washing the wound with hydrogen peroxide;
 - c) intramuscular administration of streptomycin;
 - d) oral administration of sulfadimethoxine;
 - e) protein diet.
20. What is the essence of physical antiseptics?
- a) increase the immunity of the patient;
 - b) weaken the pathogenic properties of microbes;
 - c) kill microbes in the wound;
 - d) create in the wound unfavorable conditions for the development of microbes;
 - e) destroy microbial spores in the wound.
21. What classification most fully reflects the various manifestations of bleeding?
- a) anatomical, by reason of occurrence, by clinical manifestations, taking into account the time of occurrence;
 - b) anatomical, physiological, taking into account the time of appearance, due to the appearance;
 - c) due to the appearance, anatomical, physiological, according to clinical manifestations, taking into account the time of appearance;
 - d) anatomical, physiological, clinical, taking into account the time of appearance;
 - e) etiological, anatomical, physiological, clinical.
22. What is a hematoma?
- a) accumulation of blood limited to tissues;
 - b) hemorrhage in parenchymal organs;
 - c) accumulation of blood in the joint cavity;
 - d) blood impregnation of soft tissues;
 - e) accumulation of blood in the pleural or abdominal cavity.
23. A vascular suture for the purpose of hemostasis is applied in case of damage:
- a) capillaries;
 - b) arterioles;
 - c) venule;
 - d) any vessels;
 - e) main vessels.

24. What is a blood group?
- a) a set of leukocyte antigens;
 - b) whey proteins;
 - c) a set of erythrocyte antigens;
 - d) a set of acquired antibodies;
 - e) a set of immune antibodies.
25. What is the name of the antigen-antibody reaction in determining the Rh factor of blood?
- a) pseudoagglutination;
 - b) panagglutination;
 - c) isoagglutination;
 - d) heteroagglutination;
 - e) homoagglutination.
26. When transfused blood type:
- a) is checked before the first blood transfusion;
 - b) checked before each blood transfusion;
 - c) not checked, enough data in the passport;
 - d) not checked, enough data in the medical history;
 - e) not checked, history data is sufficient.
27. Name the phases of shock:
- a) fainting, collapse;
 - b) initial, intermediate, terminal;
 - c) lightning fast, acute;
 - d) erectile, terminal;
 - e) erectile, torpid.
28. For traumatic shock is uncharacteristic:
- a) acidosis;
 - b) alkalosis;
 - c) hyperkalemia;
 - d) hyponatremia;
 - e) hypochloremia.
29. Specify the main factors that determine the severity of toxicosis in patients with prolonged compression syndrome:
- a) swelling of the injured limb;
 - b) myoglobinemia and myoglobinuria;
 - c) hyperkalemia, hyponatremia;
 - d) hypercreatinemia and hyperphosphatemia;
 - e) an excess of histamine and adenylic acid in the blood.
30. For the period of acute renal failure in the syndrome of prolonged compression, all are characteristic, except:
- a) increase in anemia;
 - b) a sharp decrease in diuresis up to anuria;
 - c) hyperkalemia and hypercreatinemia;
 - d) hemodilution;
 - e) hypokalemia and polyuria.
31. Specify the symptoms of mild traumatic brain injury:

- a) convulsions, coma;
 - b) headache, nausea, increased heart rate;
 - c) blood in the cerebrospinal fluid, congestive optic papilla;
 - d) amnesia, anisocoria;
 - e) vomiting, bradycardia, headache.
32. CSF leakage from the ear after a craniocerebral injury is a symptom of what injury?
- a) brain injury
 - b) concussion
 - c) fracture of the cranial vault
 - d) fracture of the base of the skull
 - e) intracranial bleeding
33. What is characteristic of external open pneumothorax?
- a) collapse of the lung on the side of the injury;
 - b) collapse of the lung on the damaged side;
 - c) mediastinal balloting;
 - d) displacement of the mediastinum towards damage;
 - e) displacement of the mediastinum in the opposite direction.
34. With a closed injury of the abdominal cavity with a rupture of the bladder, the most informative method of investigation is:
- a) survey radiography of the abdominal cavity;
 - b) laparoscopy;
 - c) contrast cystography;
 - d) irrigoscopy;
 - e) general urinalysis.
35. The most common congenital dislocation is:
- a) shoulder
 - b) forearms;
 - c) in the wrist joint;
 - d) hips;
 - e) the main phalanx of the first finger.
36. A symptom of a dislocation is:
- a) change in the absolute length of the limb;
 - b) change in the relative length of the limb;
 - c) pathological mobility in the damaged joint;
 - d) crepitus;
 - e) subcutaneous emphysema.
37. Name the symptom of a closed bone fracture:
- a) subcutaneous emphysema;
 - b) pathological mobility;
 - c) increase in the absolute length of the limb;
 - d) bleeding;
 - e) spring resistance in the nearest joint.
38. Specify the element of first aid at the scene of an accident for a victim with a fracture of a long tubular bone:
- a) use the Beler tire;

- b) anesthetize the fracture site;
 - c) perform reposition of fragments;
 - d) immobilize the limb with a transport tire;
 - e) perform skeletal traction.
39. Of the local symptoms with second-degree burns, all are noted, except:
- a) soreness;
 - b) hyperemia;
 - c) bubbles;
 - d) edema;
 - e) hypoesthesia.
40. Burn shock is characterized by:
- a) weakly expressed erectile phase;
 - b) pronounced erectile phase;
 - c) the absence of a torpid phase;
 - d) increased CVP;
 - e) increase in BCC.
41. The main cause of degenerative changes and tissue necrosis in cold injury is:
- a) plasma loss;
 - b) paralysis of nerve endings;
 - c) muscle dysfunction;
 - d) violation of blood flow;
 - e) stop sweating.
42. The reactive period during frostbite includes the time:
- a) direct exposure to cold;
 - b) from the beginning of the action of cold to warming;
 - c) warming up;
 - d) after the restoration of body temperature;
 - e) from the beginning of the action of cold to the rejection of the scab.
43. Many factors contribute to the development of infection in the wound, except:
- a) hematomas;
 - b) blood loss;
 - c) shock;
 - d) exhaustion;
 - e) the absence of foreign bodies.
44. Under the primary surgical treatment of the wound should be understood:
- a) excision of the edges and bottom of the wound;
 - b) opening pockets and streaks;
 - c) removal of purulent discharge;
 - d) excision of the edges, walls and bottom of the wound;
 - e) washing the wound with an antiseptic; hemostasis.
45. What is called acute osteomyelitis?
- a) purulent inflammation of the fascial spaces of the extremities;
 - b) purulent inflammation of the articular bag;
 - c) tuberculous lesions of the vertebrae;
 - d) purulent inflammation of the bone marrow;

- e) specific inflammation of bone tissue.
46. One of the most important components of treatment for sepsis is:
- massage;
 - antibiotic therapy;
 - physiotherapy exercises;
 - physiotherapeutic procedures;
 - vitamin therapy.
47. The leading role in the pathogenesis of tetanus is played by the exotoxin secreted by the pathogen:
- streptokinase;
 - tetanolysin;
 - hyaluronidase;
 - leukocidin;
 - tetanospasmin.
48. What joints are most often affected in the osteoarticular form of tuberculosis?
- interphalangeal, wrist, ankle;
 - intervertebral, sacroiliac;
 - knee, hip, shoulder;
 - all of the above;
 - joints are not affected by tuberculosis.
49. What feature is not characteristic of a malignant tumor?
- spreads through the lymphatic vessels;
 - sprouts neighboring tissues;
 - can exist for the whole life of the patient;
 - develops quickly and for no apparent reason;
 - after removal of the tumor, a relapse occurs.
50. Remote associated skin grafting according to V.P. Filatov is a plastic method:
- stalked flap;
 - bridge flap;
 - arterized skin-fat flap;
 - round migrating stalked flap;
 - split skin flap.

№ test task	№ response standard	№ test task	№ response standard	№ test task	№ response standard
1	c	21	a	41	d
2	d	22	a	42	b
3	a	23	e	43	e
4	b	24	c	44	d
5	a	25	c	45	d
6	d	26	b	46	b
7	e	27	e	47	e
8	e	28	b	48	c
9	c	29	b	49	c
10	c	30	e	50	a
11	b	31	b		

12	e	32	d		
13	e	33	c		
14	b	34	c		
15	b	35	d		
16	c	36	b		
17	c	37	b		
18	d	38	d		
19	c	39	e		
20	d	40	c		

4.6. Topics of control works for assessing competencies: UC-1, UC-5, UC-8, PC-5, PC-6, PC-8, PC-20, PC-21, PC-22

1. Differential diagnosis of acute appendicitis with other diseases.
2. GSD: choledocholithiasis, cholangitis, strictures, biliary fistulas - definition of concepts. Clinical picture, diagnosis, conservative treatment. Indications for surgical treatment.
3. Diagnosis of acute pancreatitis. Indications for surgical treatment. The main methods of surgical treatment of acute pancreatitis.
4. The clinical picture of bleeding from a stomach or duodenal ulcer. Diagnostics. Differential diagnosis. Indications for surgical treatment.
5. Acute violation of the mesenteric circulation. Concept definition. Etiology. Pathogenesis. Pathological picture. clinical picture. Diagnostics. Differential diagnosis. Indications for surgical treatment.
6. Complications of independently reduced and forcibly reduced strangulated hernias. Surgical tactics for strangulated hernia.
7. Wounds and damage to internal organs. Rupture of the spleen, liver, hollow organ.
8. Crohn's disease. Concept definition. Etiology. Pathogenesis. Pathological picture. Classification of Crohn's disease: localization, clinical course, complications, extraintestinal manifestations. clinical picture. Diagnostics. Differential diagnosis. Conservative treatment. Indications for surgical intervention.
9. Nonspecific ulcerative colitis. Concept definition. Etiology. Pathogenesis. Pathological picture. Clinic and diagnostics. Differential diagnosis. Treatment. Conservative treatment. Indications for surgical treatment.
10. Insufficiency of the sphincter of the anus. Rectovaginal fistulas. Epithelial coccygeal passage. Pararectal cysts and tumors in adults. Etiology, pathogenesis, clinic, diagnosis and treatment of the disease.
11. Principles of treatment of purulent wounds. General effect on the body. Local impact on the wound process in the 1st phase and in the 2nd phase of the course of the wound process. Physical, chemical, biological methods of wound treatment. Modern dressings.
12. Streptococcal and anaerobic wound infection as the main causative agents of diseases. Classification, pathogenesis, clinic, diagnosis and treatment of diseases.
13. Phlegmon brush. Etiology, pathogenesis, classification, clinic, diagnosis and treatment of diseases.
14. Surgical treatment of patients with sepsis. Intensive care of surgical sepsis.
15. General principles for the treatment of peritonitis. Preoperative preparation, tasks of surgical intervention, postoperative complications.
16. Mastitis. Classification, phases of the course of the disease, etiology, pathogenesis, clinic, diagnosis, treatment, prevention.
17. Principles of treatment of the "diabetic foot" syndrome. Surgical treatment,

indications for amputation in the syndrome of "diabetic foot". Prevention of the "diabetic foot" syndrome.

18. Treatment of hernias of the anterior abdominal wall. Indications and contraindications for surgery. Types of anesthesia. Principles of plastic surgery of the inguinal canal.
19. Tumors of the liver, gallbladder and biliary tract.
20. Benign and malignant tumors of the liver, gallbladder and biliary tract.
21. Malignant tumors of the esophagus, stomach and duodenum. Classification, diagnosis, treatment.
22. Malignant tumors of the pancreas. Clinic, diagnosis, treatment.
23. Benign tumors of the pancreas. Clinic, diagnosis, treatment.
24. External percutaneous transhepatic cholangiostomy under ultrasound control.
25. Minimally invasive interventions for pancreatic necrosis.

4.7. Role/business games for competency assessment: UC-1, UC-5, UC-8, PC-5, PC-6, PC-8, PC-20, PC-21, PC-22

1. Role/business game " Activities in the surgical emergency room"

You are the emergency room surgeon on duty. A 19-year-old patient came to you a day after the onset of the disease with complaints of pain in the lower abdomen and right lumbar region. Nausea and vomiting are not was. The general condition of the patient is satisfactory. Temperature 37.8, pulse 92 per minute. Draws attention to the forced position of the patient on the back with the hip joint bent and brought to the stomach by the right thigh. When trying to straighten the thigh, it starts screaming from strong pain in the lumbar region. The abdomen is soft, painful in the right iliac region only when very deep palpation. Shchetkin-Blumberg's symptom is negative. Painful is determined palpation of the petite triangle and a sharply positive symptom of Pasternatsky on the right. Rovsing's sign is positive, Sitkovsky's sign is negative. Dysuric phenomena no. Urine is not changed. Leukocytes in the blood $14.3 \times 10^9/l$.

1. What disease can be assumed in the patient?
2. What symptoms should be checked in this case?
3. With what diseases should a differential diagnosis be made?

2. Role/business game "Actions of the surgeon on duty in the surgical department"

You are the surgeon on duty. During the round, you found that a patient with a 35-week pregnancy developed severe pain in the right side of her abdomen, vomiting, and a temperature of 37.8 degrees. Language dry, covered with white coating. The bottom of the uterus is palpated two transverse fingers above the navel. In the right half of the abdomen, more in the lower section, a sharp pain is determined by palpation, protective muscle tension, a positive symptom of Shchetkin-Blumberg. Pasternatsky's symptom is negative. Leukocytes in the blood $16 \times 10^9/l$. There are traces of protein in the urine, 5-6 leukocytes per line of sight.

1. What is your diagnosis?
2. With what diseases is it necessary to carry out a differential diagnosis?
3. What is the treatment strategy?

5. The content of the assessment means of intermediate certification: test, situational tasks, interview

Intermediate certification in the 5th semester of the 3th is carried out in the form of a credit

5.1 The list of control tasks and other materials necessary for assessing knowledge, skills and experience: tests, situational tasks.

5.1.1. Test questions with answer options for the test in the discipline "Current issues in surgery " are presented in paragraph 4.5

5.1.2. The list of situational tasks for the credit in the discipline "Current issues in surgery" are presented in paragraph 4.4

6. Criteria for evaluating learning outcomes

For credit:

Learning Outcomes	Evaluation criteria	
	Not credited	Passed
Completeness of knowledge	The level of knowledge is below the minimum requirements. There were gross errors.	The level of knowledge in the amount corresponding to the training program. Minor errors may be made
Availability of skills	When solving standard problems, the basic skills were not demonstrated. There were gross errors.	Demonstrated basic skills. Typical tasks are solved, all tasks are completed. Minor errors may be made.
Availability of skills (possession of experience)	When solving standard problems, basic skills were not demonstrated. There were gross errors.	Demonstrated basic skills in solving standard problems. Minor errors may be made.
Motivation (personal attitude)	Educational activity and motivation are poorly expressed, there is no qualitative readiness to solve the assigned tasks	Learning activity and motivation are manifested, readiness to perform the assigned tasks is demonstrated.
Characteristics of the formation of competence	Competence is not fully formed. The available knowledge, skills and abilities are not enough to solve practical (professional) problems. Re-learning required	The formation of competence meets the requirements. The available knowledge, skills and motivation are generally sufficient to solve practical (professional) problems.
Competence level	Low	Medium/High

Criteria for evaluating learning outcomes

For testing:

Rating "5" (Excellent) - points (100-90%)

Rating "4" (Good) - points (89-80%)

Grade "3" (Satisfactory) - points (79-70%)

Less than 70% - (Unsatisfactory) - Grade "2"

A complete set of assessment tools for the discipline "Hospital Surgery" is presented on the portal of the LMS of the Volga Research Medical University

<https://sdo.pimunn.net/course/view.php?id=569>

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