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## **GUIDELINES FOR PRACTICAL TRAINING**

Discipline:"General Surgery"Discipline code:GS 3301EP name:6B10101 "General medicine"Amount of study hours/credits:120 hours (4 credits)Course and semester of study:3rd year, V semesterPractical (seminar) classes:30 hours.

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Methodological guidelines for practical classes were developed in accordance with the work program of the discipline (syllabus) "General surgery" discussed at the meeting of the department

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Protocol No 2 01 09 2023

Head of the Department, Candidate of Medical Sciences, Acting Associate Professor

Zhumagulov K.N.

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# **1.** Topic No1. History of surgery. Organization of surgical care in the Republic of Kazakhstan Features of the methodology of examination of surgical patients

**2. Purpose: To** familiarize with the leading clinical syndromes of pathology of organs of the surgical system, to assimilate clinical signs and learn the basics of diagnosis, to familiarize with laboratory and instrumental research methods, to give them a diagnostic interpretation.

## 3. Training tasks:

The student should know:

• Mechanisms of development of leading clinical syndromes in surgery.

• The main complaints of patients with surgical syndromes.

• Causes of the development of surgical syndrome.

The student must be able to:

• Interview a patient with syndromes of diseases of the surgical system.

• To examine the patient and identify changes in the general status characteristic of the surgical syndrome.

• Conduct a physical examination of patients with surgical syndromes.

4. Main issues of the topic:

1. What predisposing factors do you know that lead to the development of surgical syndrome?

2. What complaints do patients with surgical syndromes make?

3. What symptoms can be detected with surgical syndrome?

4. What complaints do patients with surgical syndromes make?

## 5. Methods/technologies of teaching and learning:

• Discussion of the lesson topic, Sbl

6. Assessment methods/technologies (discussion of the lesson topic, solving situational problems, mastering practical skills):

• AKS/dumb formula.

## 7. Literature (basic and additional): the syllabus indicates

## 8. Control: (questions, situational task)

Questions:

1. What is the characteristic symptom of the surgical syndrome?

2. What do you know the objective features characteristic of the surgical syndrome?

3. What changes can be detected in blood tests?

4. What changes can be detected in surgical syndrome disorders?

5. What do you know the methods of laboratory and instrumental research in pathologies of the surgical system?

#### Situational task:

1. A 35-year-old man was taken to the emergency room of the hospital with complaints of abdominal pain. About 8 hours ago he was beaten by unknown people. The condition is of moderate severity. Pulse-104 beats per minute. Blood pressure-120/80mm. hg. The tongue is lined, dry. The anterior abdominal wall does not participate in the act of breathing, it is tense. The abdomen is painful, more in the lower parts. Hepatic stupidity is preserved. The Shchetkin-Blumberg symptom is positive. Single weak peristaltic noises are listened to. Blood test: leukocytes-16.4x109 l, rod-shaped neutrophils-8%. Urine analysis without

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features. On an overview radiograph of the abdomen in the patient's sitting position, free gas under the domes of the diaphragm is not determined. Is it possible to exclude a rupture of a hollow organ in the victim? What should be the treatment tactics?

# 1. Topic # 2. Asepsis.

**2. Purpose:** To familiarize students with the organization and principles of the admission department and its equipment. To teach the use of a complex of therapeutic and preventive measures to combat surgical infection in the surgical department and the operating unit. To familiarize with the basic methods of asepsis.

# 3. Learning objectives:

The student should know:

• Structure, organization and principles of operation of the surgical and emergency department, operating unit;

- Equipment of the surgical office of the polyclinic;
- The main complexes of therapeutic and preventive measures;
- Orders for the prevention of intra-hospital infection;
- The concept of asepsis.

The student must be able to:

- To draw up medical documentation;
- Carry out general cleaning;
- To master additional methods of prevention of suppuration of surgical wounds;
- To draw up medical documentation;
- Carry out general cleaning;

## 4. Main issues of the topic:

- Principles of work of medical and preventive institutions;
- The structure of the reception, surgical department;
- Equipment of the operating unit and surgical office of the polyclinic;
- Sanitary and epidemiological regime of the surgical department and the operating unit;
- Ways of transmission of infection and their prevention;
- Sterilization methods;
- History of asepsis;
- Prevention of endogenous infection of wounds.

## 5. Methods/technologies of teaching and learning:

• Discussion of the lesson topic, Sbl

6. Methods /technologies of assessment Work on other subjects of care, oral interview, solving situational problems, modeling the situation.

## 7. Literature (basic and additional): the syllabus indicates

## 8. Control: (tests, situational tasks attached)

- 1. Which medical and preventive institutions are outpatient and inpatient?
- 2. What are the principles of the work of medical and preventive institutions?
- 3. What events are held in the reception department?
- 4. What is the structure of the surgical department?
- 5. List the zones of the operating unit
- 6. What manipulations are carried out in the surgical office of the polyclinic?

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7. Give the concept of the sanitary and epidemiological regime of the surgical department and the operating unit?

8. What are the ways of transmission of infection?

9. Explain the prevention of transmission of infection?

Test questions:

- 1. The treatment of the surgeon's hands with May day lasts ... minutes.
- a. 1
- b. 2
- c. 3
- 1. impaired renal function
- 2. hearing impairment
- 3. thrombosis
- 9. The normal autoflora of the skin is considered to be the growth of ... colonies on the plate
- 1. 5-20
- 2. 1-2
- 3. 3-4
- 4. 30-50
- 5.80-100

10. Potassium permanganate belongs to the group:

- 1. oxidizing agents
- 2. halides
- 3. nitrofurans
- 4. macrolides
- 5. alcohols

Situational task:

No. 1. During the dressing, a 67-year-old patient was found to have a superficial wound on the anterior abdominal wall, covered with purulent-necrotic tissues.

What mechanical and physical antiseptic methods do you use?

# 1. Topic No. 3. Antiseptics.

2. Purpose: To develop and expand students' knowledge on general issues of antiseptics, to teach them to use a complex of therapeutic and preventive measures to combat surgical infections, to familiarize them with the basic methods of antiseptics.

# 3. Learning objectives:

The student should know:

- The concept of antiseptics;
- Types of antiseptics;
- Rules for the use of antiseptics.

The student must be able to:

- To draw up medical documentation;
- Producing wound PHO;
- Producing wound VHO;
- Master the technique of testing for sensitivity to antibiotics;
- To master additional methods of prevention of suppuration of surgical wounds;
- 4. Main issues of the topic:

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- Definition of antiseptics;
- Mechanical, physical, biological and chemical antiseptics;

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- Methods of application of chemical antiseptics;
- Prevention of endogenous infection of wounds.
- 5. Methods/technologies of teaching and learning:
- Discussion of the lesson topic, Sbl

6. Methods /technologies of assessment Work in the dressing room, on dummies and other care items, oral interview, solving situational problems, modeling the situation.

#### 7. Literature (basic and additional): the syllabus indicates

#### 8. Control: (tests, situational tasks attached)

- 1. Who is the founder of antiseptics?
- 2. Explain the rules for the use of types of antiseptics?
- 3. Show the sequence of the wound PHO technique?
- 4. What is the use of antiseptic drugs in practice?
- 5. Show the treatment of the surgeon's hands
- 6. How is the surgical field treatment sequence performed?
- 7. What is mechanical antiseptics?
- 8. What is physical antiseptics?
- 9. What is biological antiseptics?

#### Test questions:

- 1. Non-existent type of antiseptics:
- 1. thermal
- 2. mechanical
- 3. physical
- 4. biological
- 5. chemical
- 2. An antiseptic that is not used for surgical infection:
- 1. gibitan
- 2. chloramine
- 3. lysol
- 4. rivanol
- 5. hydrogen peroxide
- 3. Antiseptic solution, most often used for storing corncang:
- 1. Triple solution (formalin, phenol, soda)+
- 2. sulema solution
- 3. alcohol solution of iodine
- 4. formalin
- 5. ethyl alcohol
- 4. The founder of antiseptics in surgery is:
- 1. D. Lister
- 2. M.Ya. Preobrazhensky
- 3. A.A. Charukovsky
- 4. Bergmann
- 5. Subbotin
- 5. The most common complication of antibacterial therapy is:

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- 1. allergic reactions
- 2. defeat of the central nervous system
- 3. ototoxicity
- 4. nephrotoxicity
- 5. hepatotoxicity
- 6. Proteolytic enzymes are characterized by:
- 1. lysis of non-viable tissues
- 2. bactericidal effect
- 3. anti-inflammatory effect
- 4. anticoagulation effect
- 5. dehydration effect
- 7. A preparation related to proteolytic enzymes:
- 1. trypsin
- 2. decaris
- 3. timolin
- 4. rhythmylen
- 5. kefzol
- 8. The most common complication of enzyme therapy:
- 1. allergic reactions
- 2. intoxication with these drugs
- 3. impaired renal function
- 4. hearing impairment
- 5. thrombosis
- 9. The normal autoflora of the skin is considered to be the growth of ... colonies on the plate
- 1. 5-20
- 2. 1-2
- 3. 3-4
- 4. 30-50
- 5.80-100

10. Potassium permanganate belongs to the group:

- 1. oxidizing agents
- 2. galloyds
- 3. nitrofurans
- 4. macrolides
- 5. alcohols

## Situational task:

No. 1. During the dressing, a 67-year-old patient was found to have a superficial wound on the anterior abdominal wall, covered with purulent-necrotic tissues.

What mechanical and physical methods of antiseptics do you use?

# 1. Topic No. 4. General and local anesthesia.

2. Purpose: To consolidate and expand students' knowledge on general issues of anesthesiology. To teach to identify indications and contraindications to various types of anesthesia, to individually select the type of anesthesia and anesthetic drug. Properly conduct premedication. To teach to recognize the degree of anesthesia and timely provide the patient

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with intensive care for various complications. To familiarize with the methodology of mask and intubation anesthesia and its effect on the body. To familiarize students with the types of local anesthesia and novocaine blockades, to teach the technique of local anesthesia, to help with complications. Learn the basic methods of local anesthesia.

## 3. Learning objectives:

The student should know:

- Clinical stages of anesthesia
- Methods of general anesthesia
- Theories of anesthesia
- The effects of narcotic substances
- Complications of anesthesia
- Types of local anesthesia;
- Indications and contraindications of local anesthesia;
- \* Complications of local anesthesia.
- The student must be able to:
- Prepare the patient for anesthesia
- \* Choose the tools for anesthesia
- Master intubation techniques
- Prepare an anesthetic device for general anesthesia
- Infiltration anesthesia technique;
- The technique of blockades.

## 4. Main issues of the topic:

- History of anesthesiology.
  - The concept and types of general anesthesia.
  - Theory of anesthesia
  - Methods and methods of inhalation anesthesia
  - Types of inhalation products
  - Stages of the clinical course of anesthesia
  - Indications and contraindications to various types of anesthesia
  - Neuroleptanalgesia.
  - Intravenous anesthesia.
  - Anesthesia machines.
  - Complications of anesthesia.
  - The concept and types of local anesthesia;
  - Indications and contraindications of local anesthesia;
  - Novocaine blockade.
  - 5. Methods/technologies of teaching and learning:
  - Discussion of the lesson topic, Sbl

6. Assessment methods/technologies Work on dummies, mannequins and other care items, oral interview, solving situational problems, modeling the situation, analysis and discussion of 1-2 clinical cases.

## 7. Literature (basic and additional): the syllabus indicates

## 8. Control: (tests, situational tasks attached)

- 1. Who and in what year first discovered anesthesia?
- 2. What types of anesthesia do you know?

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- 3. What advantages and disadvantages of the type of anesthesia do you know?
- 4. What indications and contraindications to anesthesia do you know?
- 5. How and when is premedication performed?
- 6. How is mask and intubation anesthesia performed?
- 7. Tell us the theory of anesthesia.
- 8. Explain the methods and methods of inhalation anesthesia.
- 9. List the inhalation products and give a description.
- 10. Explain the stages of the clinical course of anesthesia.
- 11. Tell the rule of intravenous anesthesia.
- 12. What are the complications of anesthesia?
- 13. What types of local anesthesia do you know?
- 14. What are the indications and contraindications of local anesthesia?
- 15. Infiltration anesthesia according to Vishnevsky how is it carried out?
- 16. Give a description of spinal and epidural anesthesia, tell the technique of conducting.
- 17. What is novocaine blockade, what is the difference from local anesthesia?
- 18. List the indication of novocaine blockades.

#### **Test questions:**

- 1. The electric knife is not used for anesthesia:
- a. chloroethyl
- b. nitrous oxide with oxygen
- c. nitrous oxide
- d. fluoroethane
- e. cyclopropane
- 2. Ether anesthesia was first used by:
- a. Morton
- b. Larrey
- c. Wells
- d. Ambroise Pare
- e. Avicenna
- 3. Cold for anesthesia was first used by:
- a. Inozemtsev
- b. Karavaev
- c. Avicenna
- d. Wells
- e. Pirogov N.I.
- 4. Methods of rapid introduction into anesthesia, bypassing the excitation phase, this
- is a. basic anesthesia
- b. subcutaneous anesthesia
- c. inhalation anesthesia
- d. neutroleptanalgesia
- e. introductory anesthesia
- 5. Necessary conditions for intubation:
- a. hyperventilation
- b. complete muscle relaxation
- c. lack of consciousness

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- d. presence of a gastric probe
- e. exclusion of aspiration of gastric contents
- 6. Medication used for traditional premedication:
- a. promedol, fentanyl
- b. hexinal, thiopental sodium
- c. metacin, cardiamine
- d. strophanthin, corylicon
- e. calcium gluconate, calcium chloride
- 7. In case of hemotransfusion shock, novocaine blockade is performed:
- a. paranephral
- b. Vago-sympathetic
- c. according to L.G.Shkolnikov
- d.case blockade e. intraperitoneal abdominal nerves
- 8. Cold for anesthesia for the first time applied:
- a. Avicenna
- b. Karavaev
- c. Inozemtsev
- d. Wells
- e. Pirogov N.I.
- 9. For conducting anesthesia, the following is used:
- a. 1-2% novocaine
- b. 0.25% novocaine
- c. 0.5% novocaine
- d. analgin
- e. nitrous oxide
- 10. Anesthetic used most often for local anesthesia:
- a. novocaine
- b. trimecaine
- c. lidocaine
- d. sovcaine
- e. cocaine
- Situational task:

1. A victim with an extensive wound of the left thigh and severe bleeding was taken to the receiver of the surgical department. It is urgent to intervene and stop the bleeding. In what way should the surgeon anesthetize the wound?

2. A 68-year-old patient has a lacerated wound on the inner surface of the lower third of the right shin measuring  $1.5 \times 8.0$  cm with necrotic edges, bleeding and soreness around the wound. The wound was treated with an alcohol solution, drained and anesthetized with 0.5% novocaine solution of the inner surface of the wound.

## What mistake did the surgeon miss?

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# 1. Topic No. 5. Gruppy krovi. Rh factor.Transfusion of blood.

2. Purpose: To consolidate and expand students' knowledge on general issues of transfusiology. To teach to determine blood groups and Rh factor. To teach to identify indications and contraindications to blood transfusion and blood substitutes. To familiarize with the methods of blood transfusion. To teach to master the skills of providing medical care to patients with various complications encountered during blood transfusion.

3. Learning objectives:

The student should know:

- History of blood transfusion
- The concept of transfusiology
- Indications and contraindications blood transfusion
- Mechanism of action of transfused blood
- Blood groups according to the AB0 system.
- Basic means for blood transfusion.
- Types of complications after blood transfusion.

The student must be able to:

- Direct blood transfusion
- Conduct a biological test
- Determination of blood groups by standard sera and erythrocytes.
- Determination of the Rh factor.
- Determination of blood for individual compatibility.
- Determination of blood compatibility by Rh factor.
- First aid for complications after blood transfusion.
- 4. Main issues of the topic:
- History of blood transfusion
- The concept of transfusiology
- Indications and contraindications to blood transfusion
- The mechanism of action of transfused blood
- Agglutination, types of agglutination, causes of agglutination.
- Direct blood transfusion.
- Basic means for blood transfusion.
- Determination of blood groups according to the ABO system.

• Complications during blood transfusion (hemotransfusion reactions and complications during hemotransfusion).

- 5. Methods/technologies of teaching and learning:
- Discussion of the lesson topic, Sbl
- 6. Methods/technologies of evaluation work in procedural, oral interviews, solving situational problems, modeling the situation, analyzing and discussing 1-2 clinical cases.
- 7. Literature (basic and additional): the program states
- 8. Control: (tests, situational tasks are attached)
- 1. Who discovered the blood type and Rh factor?
- 2. Who was the first to transfuse animal blood to a person?
- 3. How is the blood type determined with standard serum and with standard erythrocytes?
- 4. Determine the Rh factor by a simple and rapid method
- 5. Conduct tests for individual compatibility and Rh factor compatibility.

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- 6. Conduct biological compatibility tests.
- 7. List the sources of blood.
- 8. What is the mechanism of action of transfused blood?
- 9. What methods of blood transfusion do you know?
- 10. What indications and contraindications do you know for blood transfusion?
- 11. What complications do you know about blood transfusion?

Test questions:

- 1. Blood transfusion is contraindicated in ...
- a. severe liver and kidney dysfunction
- b. acute anemia
- c. purulent intoxication
- d. leukemia
- e. bleeding
- 2. Intra-arterial blood transfusion is performed under pressure... mmHg
- a. 200
- b. 100
- c. 50
- d. 300
- e. 80

3. To determine the blood group, standard serums are used, the titer of agglutinins of which should be at least:

- a. 1:32
- b. 1:64
- c. 1:128
- d. 1:256
- e. 1: 5
- 4. Blood stabilized on 6% sodium citric acid solution is suitable for transfusion maximum:
- a. 10 days
- a. 21 days
- b. 14 days
- c. 5 days
- d. 1 day
- 2. Previously suffered disease ..., is a contraindication to donation.
- a. viral hepatitis
- b. congenital hip dislocation
- c. strabismus
- d. clubfoot
- e. hypertension III st
- 3. Blood transfusion is absolutely contraindicated in:
- a. active tuberculosis process
- b. iron deficiency anemia
- c. hemophilia
- d. cystitis
- e. flu
- 4. Reinfusion of blood should not be carried out after injury for more than ...

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- a. 4 hours
- b. 2 hours
- c. 6 hours
- d. 3 days
- e. 12 hours
- 5. To prevent citrate shock, it is necessary to introduce the drug:
- a. 10% calcium chloride
- b. 4% potassium chloride
- solution c. 10% gelatin solution
- d. 0.5% novocaine
- y. 5% Vit C
- 6. To determine the group membership, it uses:
- a. standard serums of group I, II, III
- b. universal monoclonal antigen A
- a. universal antiresus serum
  - b. erythrocytes of group I and II
  - c. serum of the patient of group I-III
  - 2. Blood unsuitable for transfusion:
  - a. hemolized
  - b. canned
  - c. freshly harvested
  - d. with a shelf life of more than 7 days
  - e. freshly frozen

Situational task:

A patient with duodenal ulcer complicated by bleeding was admitted to the surgical department. The deficit of the BCC is 35%. In order to replenish blood loss, an emergency blood transfusion is indicated.

What is the necessary minimum of laboratory tests (samples) should be performed, without which hemotransfusion is unacceptable?

## 1. Topic No. 6. Bleeding and hemostasis. Acute blood loss.

2. Purpose: To familiarize the student with the bleeding clinic. To teach examination of patients with various types of bleeding and their localizations. To teach the method of first aid and stopping bleeding. To familiarize with the complications and consequences of bleeding.

3. Learning objectives:

The student should know:

- Causes of bleeding
- Types of bleeding and degree of blood loss
- Methods of stopping bleeding
- The student must be able to:
- Diagnose types of bleeding
- Possess the technique of temporarily stopping bleeding
- 4. Main issues of the topic:

- Causes of bleeding
- Classification of bleeding
- Clinical picture of bleeding
- The dangers of bleeding
- Temporary stop of bleeding
- Final stop of bleeding
- •Bleeding outcomes

# 5. Methods/technologies of teaching and learning:

- Discussion of the lesson topic, Sbl
- 6. Assessment methods/technologies Work on dummies, mannequins and other care items, oral interview, solving situational problems, modeling the situation; analysis and discussion of 1-2 clinical cases.
- 7. Literature (basic and additional): the syllabus indicates
- 8. Control: (tests, situational tasks attached)
- 1. What can cause bleeding?
- 2. Tell us the classification of bleeding?
- 3. What types of bleeding do you know?
- 4. What is the bleeding clinic?
- 5. What are the dangers and consequences of bleeding?
- 6. How and by whom is the temporary and final stop of bleeding carried out?
- 7. What are the outcomes of bleeding?

Test questions:

- 1. Bleeding is an outpouring of blood ...,
- 1. in tissues, body cavities or in the external environment
- 2. to the external environment
- 3. in the body cavity
- 4. in the body tissue
- 5. into the external environment and body cavities
- 2. The cause of bleeding is not:
- 1. vascular injury, neurotrophic processes
- 2. inflammation
- 3. damage to the vascular wall as a result of injury
- 4. violation of vascular wall permeability
- 5. sepsis
- 3. Anatomical classification highlights bleeding:
- 1. early, late
- 2. primary, secondary
- 3. hidden indoor, hidden outdoor
- 4. arterial, venous, capillary, parenchymal
- 5. external, internal
- 4. Bleeding is distinguished by clinical manifestations:
- 1. primary, secondary
- 2. septic, erosive
- 3. arterial, venous, capillary
- 4. early, late

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- 5. external, internal, hidden
- 5. Bleeding is distinguished by the time of occurrence:
- 1. primary, secondary early, secondary late
- 2. long, short-term
- 3. profuse, intensive, non-intensive
- 4. acute, chronic, recurrent
- 5. stopped, continuing
- 6. Decrease in blood pressure ... mmHg- poses a threat to the patient's life.
- 1. 100/60
- 2. 90/60
- 3. 70/50
- 4. 80/50
- 5. 50/0
- 7. The method of temporary stopping of bleeding:
- 1. suturing of the vessel wall
- 2. ligation of the vessel in the wound
- 3. ligation of vessels for the duration
- 4. finger compression of the vessel
- 5. vascular suture
- 8. Mechanical method of final stopping of bleeding:
- 1. finger pressure
- 2. applying a tourniquet
- 3. applying a "twist"
- 4. maximum flexion of the limb in the joint
- 5. vascular suture
- 9. The length of Esmarch's elastic hemostatic tourniquet is:
- 1. up to 1.5 meters
- 2. up to 60 cm
- 3. up to 1 meter
- 4. up to 3 meters
- 5. up to 50 cm
- 10. Esmarch tourniquet for arterial bleeding is applied to ... .
- 1. 24 hours
- 2. 30 min
- 3. 2 hours
- 4. 1 hour
- 5. 45 min

Situational task:

A 48-year-old man was taken to the emergency room with complaints of weakness, dizziness, moderate pain in the left hypochondrium. It is known from the anamnesis that 12 hours ago he fell down the stairs and hit his left rib arch. On the eve of admission, I fainted. The patient lies in a forced position. Changing the position of the body increases abdominal pain. The skin is pale. The pulse is 120 beats per minute. Blood pressure -90/50 mm Hg. art. Shallow breathing. Palpation is marked by moderate tension of the abdominal wall muscles, dulling of

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percussion sound in the left hypochondrium and sloping places of the abdomen. Blood hemoglobin - 98 g/l.

Your presumed diagnosis and tactics?

# 1. Topic No. 7. Closed mechanical damages.Desmurgy.

Transportation.

2. Purpose: To teach students to the techniques of performing transport immobilization for various closed injuries, mechanical injuries, bruises, sprains, dislocations, fractures. First aid for closed mechanical injuries, bruises, sprains, dislocations, fractures. Teach students to analyze and argue the patient's condition. Learn the rules of applying soft bandages. Learn the basic requirements for dressings. Master the technical skills of applying soft, hard bandages and an individual dressing package.

# 3. Learning objectives:

- The student should know:
- The concept of injury
- Clinical course of fractures and dislocations
- Predicting severity
- Local and surgical treatment.
- The rule of applying a bandage;
- Types of soft bandages;
- Determination of the quality of the bandage.

The student must be able to:

- Definition of types of fractures
- First aid for injuries
- Administration of painkillers and cardiac medications.
- Carrying out PHO wounds.
- Put a bandage on your head;
- Apply a bandage to one and both eyes;
- Apply a kerchief bandage;
- Apply circular, spike-shaped, spiral bandages;
- Apply a bandage to the chest, breast;
- Apply a bandage on the perineum;
- Apply a DEZO bandage.
- 4. Main issues of the topic:
- The concept of fractures
- Classification of peroloma
- Determination of fracture severity
- Clinical course
- Diagnosis of fractures and dislocation
- First aid
- Local and surgical treatment
- Anatomy physiological features of the body;
- The concept of desmurgy;
- Types of bandages, soft and hard;

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• The technique of applying the bandage.

## 5. Methods/technologies of teaching and learning:

• Discussion of the lesson topic, Sbl

6. Methods/technologies of assessment Work at the patient's bedside, dummies, mannequins and other care items, oral interview, solving situational problems, modeling the situation; analysis and discussion of 1-2 clinical cases, demonstration and interpretation of radiographs, etc.

## 7. Literature (basic and additional): the syllabus indicates

## 8. Control:(tests, situational tasks are attached)

1. What types of closed mechanical damages do you know?

2. What distinctive clinical signs of fractures do you know?

3. What studies are carried out in the diagnosis and differential diagnosis of various types of closed mechanical injuries do you know?

4. What is the scope of first aid for closed mechanical injuries?

5. What are the features of transport immobilization for various types of closed mechanical injuries do you know?

6. What are the tactics of complex treatment of bruising, stretching, dislocation and fracture?

- 7. What is desmurgy?
- 8. What are the rules of bandaging?
- 9. List the types of bandages.
- 10. What kind of spiral bandages do you know?
- 11. How is the Hippocratic bandage and the cap applied and what is the difference?
- 12. How is the bandage applied to the nose and chin?
- 13. The bandage of Dezo and Velpo is applied for what injuries?
- 14. Show the technique of applying a bandage to the mammary gland.

## Test questions:

- 1. The most common dislocation is:
- 1. shoulder
- 2. lower jaw
- 3. collarbones
- 4. hip
- 5. in the ankle joint
- 2. On the etiological basis, dislocations do not include:
- 1. complete dislocation
- 2. traumatic
- 3. familiar
- 4. innate
- 5. pathological
- 3. Congenital dislocation is most common:
- 1. hips
- 2. shoulders
- 3. forearms
- 4. in the wrist joint
- 5. the main phalanx of 1 finger
- 4. The scrotum is superimposed:

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- 1. suspensory dressing
- 2. cruciform bandage
- 3. returning bandage
  - 1. spike-shaped bandage
  - 2. Velpo bandage
  - 5. The bandage, called circular:
  - 1. Subsequent rounds cover the previous ones completely
  - 2. subsequent tours close the previous ones by 3/4
  - 3. subsequent tours close the previous ones by 1/2
  - 4. subsequent tours will be separated from the previous ones by the width of the bandage
  - 5. subsequent tours do not close the previous ones
  - 1. Occlusive dressing is used when:
  - 1. open pneumothorax
  - 2. hip fractures
  - 3. capillary bleeding
  - 4. venous bleeding
  - 5. arterial bleeding
  - 2. After surgery, a plaster cast is applied for hip fractures.
  - 1. finished
  - 2. langetnaya
  - 3. circular
  - 4. langetno-circular
  - 5. corset
  - 8. The main causes of displacement of bone fragments in fractures:
  - 1. spastic muscle contractions
  - 2. joint capsule damage
  - 3. combination with osteomyelitis
  - 4. muscle damage
  - 5. tendon injuries
  - 9. Bone fragments are repositioned:
  - 1. one-time
  - 2. deferred
  - 3. late
  - 4. early
  - 5. temporary
  - 10. Immobilization of bone fragments in the correct position is carried out by the method:
  - 1. plaster cast
  - 2. skeletal traction
  - 3. orthopedic shoes
  - 4. bandages
  - 5. transport tires

#### Situational task:

1. When examining a patient at the scene of an accident, a doctor. The ambulance revealed the presence of a fracture of the right hip. I applied a transport tire and took the patient to the trauma department.

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## Did the doctor do everything?

2. A 34-year-old man with a cut wound on the palmar surface of the middle third of the right forearm was taken to the emergency room. According to the victim, the wound was inflicted 1.5 hours ago on the street with a knife by an unknown person. The wound toilet was performed, primary stitches were applied. The nurse fixed the dressing material on the wound with a bandage, tying the ends of the bandage into a knot above the wound. After that, she injected 0.5 ml of tetanus toxoid and 3000 IU of tetanus serum subcutaneously into the patient.

What mistake was made in the technique of applying the bandage?

# 1. Topic No. 8. Open mechanical damage.

2. Purpose: To give students the basic concepts of injuries, open mechanical damage, wounds. Consolidate and expand knowledge on general issues of injuries, open mechanical damage, wounds. To teach students to prepare the patient for various manipulations with various types of trauma, to provide first aid for injuries, open mechanical damage, wounds. To familiarize with the complications developing with various types of injuries, open mechanical injuries, open

## 3. Learning objectives:

The student should know:

- The nature of the wound, stop the bleeding
- The course of the wound process
- Wound infection
- Wound healing, wound hazards

The student must be able to:

- First aid for injuries
- PHO wounds
- Washing of purulent wounds
- Processing the operational field

# 4. Main issues of the topic:

- Types of open mechanical damage;
- Distinctive clinical signs of a cut wound;
- Distinctive clinical signs of a stab wound;
- Distinctive clinical signs of a chopped wound;
- Distinctive clinical signs of a bitten wound;
- Distinctive clinical signs of a gunshot wound;
- Distinctive clinical signs of a lacerated wound;
- Distinctive clinical signs of a dilute wound;
- Distinctive clinical signs of a poisoned wound;
- Diagnostics and differential diagnostics of open mechanical damages, wounds;
- First aid skills for open mechanical injuries, wounds;

• Modern approach to complex treatment for various types of open mechanical injuries, wounds.

# 5. Methods/technologies of teaching and learning:

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• Discussion of the lesson topic, Sbl

6. Methods /technologies of assessment Work at the patient's bedside, dummies, mannequins and other care items, oral interview, solving situational problems, modeling the situation; analysis and discussion of 1-2 clinical cases.7. Literature (basic and additional): the syllabus indicates

## 8. Control: (tests, situational tasks attached)

- 1) What are wounds?
- 2) What is the clinical picture?
- 3) How are wounds classified?
- 4) What is a wound infection?
- 5) How is the wound process?
- 6) What is the first phase of the wound process?
- 7) What is the phase II of the wound process?
- 8) What types of wound healing exist?

# **Test questions:**

- 1. It is not typical for a fresh wound:
- 1. Muscle twitching
- 2. pain
- 3. bleeding
- 4. gaping wounds
- 5. gaping, bleeding
- 2. The intensity of pain in the wound depends on:
- 1. the size of the wounding projectile and the speed
- 2. the number of nerve elements in the area of damage
- 3. the neuropsychiatric state of the victim
- 4. quickness of injury
- 5. the sharpness of a wounding projectile

3. A through wound with the presence of a small entrance and a large exit hole is observed when wounded:

- 1. by a bullet at close range
- 2. finca
- 3. bayonet
- 4. shard
- 5. with a sword
- 4. According to infection, wounds are distinguished:
- 1. purulent, freshly infected, aseptic
- 2. cut, aseptic, poisoned
- 3. aseptic, scalped, purulent
- 4. chopped, freshly infected, aseptic
- 5. clean, fresh infected, infected
- 5. A penetrating wound of the abdomen is called a wound with damage to:
- 1. the parietal peritoneum
- 2. skin
- 3. muscles
- 4. aponeurosis

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- 5. subcutaneous fat
- 6. The degree of gaping of the wound is determined by:
- 1. the direction of elastic fibers of the skin, muscles and tendons
- 2. the depth of damage
- 3. damage to nerve trunks
- 4. fascia damage
- 5. damage to muscles and tendons
- 7. A wound that heals faster than others:
- 1. Cut
- 2. chopped
- 3. bitten
- 4. bruised
- 5. smashed
- 8. Many factors contribute to the development of infection in the wound, except:
- 1. shock
- 2. hematomas
- 3. blood loss
- 4. foreign bodies
- 5. exhaustion, vitamin deficiency, etc
- . 9. In developed granulations, 6 layers are distinguished, of which the fourth:
- 1. maturing
- 2. leukocyte-necrotic
- 3. vertical vessels
- 4. horizontal fibroblasts
- 5. vascular loops

10. In a gunshot wound, all damage zones are distinguished, except for the zone ... .

- 1. inflammation
- 2. wound canal
- 3. molecular shaking
- 4. primary necrosis
- 5. hemorrhages

## Situational task:

As a result of falling from a tree and hitting a hard object, an irregular 5x8 cm wound with uneven edges was formed on the outer surface of the middle third of the left shin. There are scraps of muscle on two wounds with moderate bleeding.

What kind of wound does such a wound belong to and what complications are possible during the same process?

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# 1. Topic No. 9. Operation.Pre and postoperative periods.

2. Purpose: To teach students to instrumental examination of patients to prepare patients for surgery for various diseases requiring surgical treatment. Explain the dangers of the operation. Show the operating position, access to the operation.

## 3. Learning objectives:

the student should know:

- the concept of operation,
- types and stages of surgery,
- indications and contraindications to surgery,
- preliminary preparation of the patient for surgery
- , the student must be able to:
- treatment of the surgical field and the surgeon's hands
- the transportation rule
- select operating tools
- percussion, palpation, auscultation

#### 4. The main issues of the topic:

- the concept of operation
- types and stages of the operation
- indications and contraindications to surgery,
- preparation of organs and systems
- operating pose
- operational access reception
- 5. Methods/technologies of teaching and learning:
- Discussion of the lesson topic, Sbl

6. Assessment methods/technologies Bedside work, oral interview, situational problem solving, situation modeling; analysis and discussion of 1-2 clinical cases.

## 7. Literature (basic and additional): the syllabus indicates

## 8. Control: (tests, situational tasks attached)

- 1. Define the operation.
- 2. Determine the urgency of the operation.
- 3. What types of surgery exist?
- 4. What is the difference between radical and polyative surgery?
- 1. What are typical and atypical operations?
- 2. Show the operating posture?
- 3. How is the preoperative preparation of the patient for planned operations carried out?
- 4. How is the patient's preoperative preparation for emergency operations carried out?
- 5. What indications and contraindications do you know for urgent operations? Test questions:
- 1. Emergency surgery is not performed for:
- a. dry gangrene
- b. nonspecific gangrene
- c. wet gangrene
- d. specific gangrene
- e. diabetic gangrene
- 2. Preoperative preparation for appendectomy does not include:

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- a. cleansing enema
- b. premedication
- c. shaving the hair of the surgical field
- d. psychological preparation
- e. emptying the bladder
- 3. The occurrence of thromboembolic complications in the postoperative period is not promoted by:
- a. pain in the wound
- b. bleeding
- c. hematomas
- d. infiltration
- e. eventeration
- 4. The divergence of the wound edges after laparotomy does not contribute to:
- a. massive infusion therapy
- b. high intra-abdominal pressure
- c. hematoma
- d. suppuration of the wound
- e. insufficient strong suturing of aponeurosis
- 5. In case of flatulence after surgery, it is not shown:
- a. medical stimulation of intestinal peristalsis
- b. introduction of a gas outlet tube into the anus
- c. introduction of antispasmodics
- d. gastric lavage
- e. hypertensive enema
- 6. Early pulmonary complications of the postoperative period include:
- a. asphyxia
- b. pneumonia
- c. atelectasis
- d. bronchiectatic disease
- e. bronchitis

7. In case of acute urinary retention in the postoperative period, the following are not carried out:

- a. administration of diuretics
- b. paranephral novocaine blockade
- c. catheterization of the bladder
- d. imposition of epicystostomy
- e. introduction of antispasmodics
- 8. Non-existent stages in the general procedure for performing the operation:
- a. withdrawal from anesthesia
- b. operating posture (laying)
- c. treatment of the operating field and anesthesia
- d. operative access and operative reception
- e. completion of the operation
- 9. Tactics of the doctor in case of urinary retention in the postoperative period:
- a. urinary catheter removal

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- b. bladder puncture
- c. paranephral novocaine blockade, kidney diathermy
- d. bladder warmer
- e. emptying the rectum with an enema
- 10. To clarify the diagnosis with suspected peritonitis, it is necessary to ...
- a. urgent laparoscopy
- b. clinical analysis of blood and urine
- c. repeated examination of the patient after 1 hour
- d. overview X-ray of abdominal organs
- e. Ultrasound of abdominal organs

## Situational task:

Patient M., 75 years old, turned blue 15 minutes after the operation, performed under anesthesia for acute appendicitis. Breathing is rare, intermittent.

What complication of the early postoperative period developed in the patient? Your actions?

#### 1. Topic No. 10. Acute local surgical infection.

2. Purpose: To familiarize students with the features, types of surgical infection, to demonstrate patients with purulent infections (furuncle, carbuncle, abscess, phlegmon, lymphadenitis, panaritis, mastitis, paropractitis, erysipelas, etc.). To teach the diagnosis of purulent infection, surgical treatment methods. To familiarize with the prevention of purulent infections.

## 3. Learning objectives:

the student should know:

- Etiology and pathogenesis of purulent infection
- Dangers and complications of purulent infection
- Prevention of purulent infection
- Complex treatment of purulent infection
- a student should be able to:
- Percussion, palpation, auscultation.
- Skin treatment, surgical wounds.
- Local anesthesia

## 4. Main issues of the topic:

- Etiology, pathogenesis of purulent infection
- Classification, pathologic and anatomical picture of purulent infections
- Clinical course
- Diagnostics, differential diagnostics
- Basic principles of treatment of acute purulent infection, conservative, surgical treatment
- Use of antibiotics

## 5. Methods/technologies of teaching and learning:

• Discussion of the lesson topic, Sbl

6. Assessment methods/technologies Bedside work, oral interview, situational problem solving, situation modeling; analysis and discussion of 1-2 clinical cases.

## 7. Literature (basic and additional): the syllabus indicates

## 8. Control: (tests, situational tasks attached)

1. What types of surgical infections do you know?

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- 2. What relative signs of various surgical inflammatory diseases do you know?
- 3. What diagnostic manipulations performed in surgical infectious and inflammatory diseases do you know?
- 4. What preventive measures are carried out in order to prevent surgical infections do you know?

5. What are the features of caring for patients with surgical infectious and inflammatory diseases do you know?

- 6. What applies to surgical treatment of purulent-inflammatory diseases?
- 7. What can complicate surgical infections?
- 8. What are the basic principles of treatment of acute purulent infection?

# **Test questions:**

- 1. Signs not characteristic of phlegmon:
- 1. the presence of a cavity with pus surrounded by a capsule
- 2. increase in body temperature
- 3. local soreness
- 4. local hyperemia of the skin
- 5. painful infiltration with softening in the center
- 2. Superficial purulent thrombophlebitis is not characterized by:
- 1. intermittent lameness
- 2. swelling of the limb
- 3. formation of blood clots along the veins
- 4. body temperature a 37-37.5
- 5. skin cyanosis
- 3. Treatment is indicated for an abscess:
- 1. urgent surgery opening and drainage of the abscess cavity
- 2. urgent hospitalization of the patient, establishment of vigilant monitoring of the patient

3. the purpose of a full-fledged diet to raise the protective immune and biological forces of the body

4. before the formation of a purulent cavity, conservative treatment, antibiotic therapy

5. with a small accumulation of pus, a puncture is performed with the suction of pus and the introduction of antibiotics

- 4. Diagnosis of purulent pleurisy is determined by ... .
- 1. pleural puncture we get pus in a syringe
- 2. auscultation attenuation of breathing noise in the lung on the side of the disease
- 3. percussion dulling of percussion sound
- 4. chest X-ray enhanced lung tissue enlightenment
- 5. palpation absence of vocal tremor
- 5. It is possible to transfer the course of wet gangrene to dry by:
- 1. under general anesthesia, make "lampas" incisions and bandages with ointment, UFOs
- 2. prevention and control of infection
- 3. improvement of blood circulation of limb tissues
- 4. UHF wounds
- 5. alcohol dressings
- 6. The source of surgical sepsis cannot be:
- 1. closed fracture

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- 2. deep burn
- 3. the wound
- 4. carbuncle of the face
- 5. peritonitis
- 7. The clinical classification of sepsis does not include the type:
- 1. traumatic
- 2. sharp
- 3. lightning fast
- 4. recurrent
- 5. cryptogenic
- 8. Therapeutic measures that cannot be recommended for sepsis:
- 1. restriction of the introduction of fluids and hypertonic solutions
- 2. opening of a purulent focus
- 3. administration of antibiotics
- 4. blood transfusion
- 5. vitamin therapy
- 9. The most important in the treatment of sepsis is:
- 1. elimination of the primary focus
- 2. strict bed rest
- 3. thorough history collection
- 4. treatment of concomitant disease
- 5. identification of hereditary factor
- 10. Sepsis is less characteristic of:
- 1. anuria
- 2. tachycardia
- 3. leukocytosis
- 4. increase in body temperature
- 5. the presence of a purulent focus

## Situational task:

A 9-year-old boy was taken to the hospital's emergency room with complaints of pain in his right leg. He has been ill for 2 weeks. He was treated at home. The condition worsened, so he was sent for inpatient treatment.

Body temperature in the evenings – up to 40 C. Isolated scattered dry and wet wheezes are heard in the lungs. The liver and spleen are not enlarged. Edema and hyperemia of the skin in the lower third of the right thigh, sharp soreness are determined. The knee joint is enlarged in volume, the leg is bent in it, the movements are painful. Additionally, it was found that 3 weeks ago he hit his right hip on the desk.

Your diagnosis? What studies should be performed in the emergency room? Your treatment tactics?

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2. Purpose: To familiarize with the leading clinical syndromes of sepsis, to assimilate clinical signs and learn the basics of diagnosis, to familiarize with instrumental research methods, to give them a diagnostic interpretation.

3. Training tasks:

The student should know:

- The mechanism of sepsis development.
- The main complaints of patients with osteomyelitis
- Causes of osteomyelitis.
- The student must be able to:
- Interview patients with osteomyelitis

• Conduct an examination of the patient and identify changes in the general status characteristic of

- this syndrome.
- Conduct a physical examination of patients with osteomyelitis.

#### 4. Main issues of the topic:

- What predisposing factors do you know that lead to the development of sepsis syndrome?
- What complaints do osteomyelitis patients make?
- What palpation changes can be detected in osteomyelitis?
- What complications of osteomilitis do you know?
- What objective changes do you know about osteomyelitis?
- What laboratory and instrumental research methods are used for diagnostics?

## 5. Methods/technologies of teaching and learning:

• Discussion of the lesson topic, Sbl

6. Assessment methods/technologies Bedside work, oral interview, situational problem solving, situation modeling; analysis and discussion of 1-2 clinical cases.

7. Literature (basic and additional): the syllabus indicates

8. Control: (tests, situational tasks attached)

## **Questions:**

- 1. What types of sepsis do you know?
- 2. What types of osteomyelitis do you know?
- 3. What factors leading to the development of sepsis do you know?

## Situational task:

A 9-year-old boy was taken to the hospital's emergency room with complaints of pain in his right leg. He has been ill for 2 weeks. He was treated at home. The condition worsened, so he was sent for inpatient treatment.

The body temperature in the evenings is up to 40 C. Isolated scattered dry and wet wheezes are heard in the lungs. The liver and spleen are not enlarged. Edema and hyperemia of the skin in the lower third of the right thigh, sharp soreness are determined. The knee joint is enlarged in volume, the leg is bent in it, the movements are painful. Additionally, it was found that 3 weeks ago he hit his right hip on the desk.

Your diagnosis? What studies should be performed in the emergency room? Your treatment tactics?

## 1. Topic No. 12. Necrosis, gangrene (dry and wet), ulcers, fistulas.

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2 Objective: To familiarize with the leading clinical syndromes of necrosis, gangrene, to learn clinical signs and learn the basics of diagnosis, to familiarize with instrumental research methods, to give them a diagnostic interpretation.

#### 3. Training tasks:

The student should know:

- The mechanism of development of necrosis, gangrene (dry and wet), ulcers, fistulas.
- The main complaints of patients with gangrene.
- Causes of gangrene syndrome.

The student must be able to:

- Survey of patients with necrosis syndrome.
  - Conduct an examination of the patient and identify changes in the general status characteristic of
  - this syndrome.
  - Conduct a physical examination of patients with gangrene.

#### 4. Main issues of the topic:

- What factors leading to the development of necrosis do you know??
- What complaints do patients with necrosis make?
- What palpation changes can be detected in gangrene?
- What are the causes of gangrene syndrome?
- What laboratory and instrumental research methods are used to make a diagnosis?

## 5. Methods/technologies of teaching and learning:

• Discussion of the lesson topic, Sbl

6. Assessment methods/technologies Bedside work, oral interview, situational problem solving, situation modeling; analysis and discussion of 1-2 clinical cases.

- 7. Literature (basic and additional): the syllabus indicates
- 8. Control: (questions, situational task)

## **Questions:**

- 1. What do you know the objective features characteristic of necrosis?
- 2. What types of gangrene do you know?
- 3. What forms of necrosis disorders do you know?
- 4. What factors leading to the development of gangrene syndrome do you know?

## Situational task:

1. Patient K., 40 years old, suffering from atrial fibrillation, suddenly had severe pain in the left foot and lower leg.

The patient is moaning from the pain. The foot and the lower third of the lower leg are pale, cold to the touch. Palpation of the lower leg is sharply painful, there are no active movements in the ankle joint, tactile sensitivity on the foot is reduced. The pulse on the femoral artery is satisfactory, on the other arteries of the limb is not determined. Your diagnosis and treatment tactics?

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2. Purpose: To familiarize with the leading clinical syndromes in chronic surgical (special) infection, to assimilate clinical signs and learn the basics of diagnosis, to familiarize with instrumental research methods, to give them a diagnostic interpretation.

## **3. Training tasks:**

The student should know:

- 1. the mechanism of development of chronic surgical (special) infection.
- main complaints of patients with chronic surgical (special) infection.
- 3. causes of chronic surgical (special) infection.

## The student must be able to:

• interview of patients with chronic surgical (special) infection.

• examine a patient with a chronic surgical (special) infection and identify changes in the general condition.

conducting a physical examination of patients with chronic surgical (special) infection.
4. Main issues of the topic:

- concept, history, etiology of chronic surgical (special) infection.
- Pathogenesis. Clinical picture. Classification
- complex treatment. Special surgical treatment
- Prevention of anaerobic infection
- tetanus: concept, etiology. Classification
- clinical course. Prevention. Tetanus Treatment
- 5. Methods/technologies of teaching and learning:
- Discussion of the lesson topic, Sbl

6. Assessment methods/technologies Bedside work, oral interview, situational problem solving, situation modeling; analysis and discussion of 1-2 clinical cases.

7. Literature (basic and additional): the syllabus indicates

8. Control: (questions, situational task)

## **Questions:**

- 1. the concept, history, etiology of chronic surgical (special) infection.
- 2. Pathogenesis
- 3. clinical picture
- 4. classification
- 5. complex treatment
- 6. special surgical treatment
- 7. Prevention of anaerobic infection
- 8. tetanus: concept, etiology.
- 9. classification
- 10. clinical course
- 11. prevention
- 12. tetanus treatment

## Situational task:

A patient came to the polyclinic for an appointment with a surgeon complaining of pain in the right hip joint, the presence of a tumor-like formation in the right popliteal fossa. The examination revealed pronounced atrophy of the muscles of the right thigh, a positive symptom of Alexandrov, fluctuation in the area of tumor-like formation in the right popliteal fossa. The surgeon performed a puncture of the tumor-like formation, received

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pus. What mistake was made by the surgeon? What additional research methods needed to be carried out?

#### 1. Topic No. 14. Malformations of development.Plastic surgery

- The main complaints of patients with osteomyelitis
- Causes of osteomyelitis.

#### The student must be able to:

- Interview patients with osteomyelitis
- Conduct an examination of the patient and identify changes in the general status
- characteristic of
- this syndrome.
- Conduct a physical examination of patients with osteomyelitis.
- 4. Main issues of the topic:
- What predisposing factors do you know that lead to the development of sepsis syndrome?
- What complaints do osteomyelitis patients make?
- What palpation changes can be detected in osteomyelitis?
- What complications of osteomilitis do you know?
- What objective changes do you know about osteomyelitis?
- What laboratory and instrumental research methods are used for diagnostics?

## 5. Methods/technologies of teaching and learning:

• Discussion of the lesson topic, Sbl

- 6. Assessment methods/technologies Bedside work, oral interview, situational problem solving, situation modeling; analysis and discussion of 1-2 clinical cases.
- 7. Literature (basic and additional): the syllabus indicates
- 8. Control: (tests, situational tasks attached)

## **Questions:**

- 1. What types of sepsis do you know?
- 2. What types of osteomyelitis do you know?
- 3. What factors leading to the development of sepsis do you know?

## Situational task:

A 9-year-old boy was taken to the hospital's emergency room with complaints of pain in his right leg. He has been ill for 2 weeks. He was treated at home. The condition worsened, so he was sent for inpatient treatment.

The body temperature in the evenings is up to 40 C. Isolated scattered dry and wet wheezes are heard in the lungs. The liver and spleen are not enlarged. Edema and hyperemia of the skin in the lower third of the right thigh, sharp soreness are determined. The knee joint is enlarged in volume, the leg is bent in it, the movements are painful. Additionally, it was found that 3 weeks ago he hit his right hip on the desk.

Your diagnosis? What studies should be performed in the emergency room? Your treatment tactics?

## 1. Topic No. 15. Tumors.Benign and malignant tumors.

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2. Purpose: To consolidate and expand the knowledge of neoplasms. Explain the etiology of the neoplasm. To teach students timely diagnosis of malignant diseases. To teach differential diagnosis between benign and malignant tumors.

# 3. Learning objectives:

## The student should know:

• The theory of the occurrence of tumors.

- Clinical course of malignant tumors.
- Precancerous diseases.
- General characteristics of individual types of tumors,
- Methods of examination of patients with malignant tumors.
- To organize cancer care and conduct propaganda among the population.

## The student must be able to:

- Distinguish a malignant from a benign tumor.
- Examine patients with malignant tumors.
- 4. Main issues of the topic:
- The concept of tumors.
- Etiology of tumors.
- Pathogenesis of the tumor process.
- Classification of tumors.
- Clinic of the tumor process.
- Methods of research of an oncological patient.
- Laboratory and instrumental studies in the diagnosis of tumors.
- treatment of tumors.
- Organization of cancer care and propaganda among the population.

## 5. Methods/technologies of teaching and learning:

• Discussion of the lesson topic, Sbl

6. Methods/technologies of evaluation of work at the patient's bedside, models and other care items, oral interview, solving situational problems, modeling the situation; analysis and discussion of 1-2 clinical cases, demonstration and interpretation of radiographs, etc.

## 7. Literature (basic and additional): the syllabus indicates

## 8. Control: (tests, situational tasks attached)

- 1. What are neoplasms?
- 2. What are the causes of tumors?
- 3. Tell us the theory of neoplasm?
- 4. How does the pathogenesis of the tumor process proceed?
- 5. List the classification of tumors?
- 6. What diseases leads to neoplasms?
- 7. What is the clinic of the tumor process?
- 8. What laboratory and instrumental studies in the diagnosis of tumors do you know?
- 9. Explain the methods of treating tumors?

10. How is the organization of oncological care and propaganda among the population carried out?

Test questions:

- 1. The cause of the tumor may be:
- 1. carcinogenic substances

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- 2. aging of the body
- 3. X-ray examination
- 4. antibiotics
- 5. chemical preparations
- 2. For a malignant tumor, it is uncharacteristic:
- 1. the presence of a capsule
- 2. expansive growth
- 3. in the cytogram ateptic cells
- 4. metastasis
- 5. sprouts into neighboring organs
- 3. Radiation therapy cannot be used:
- 1. as an independent method of treatment
- 2. as an auxiliary method before surgery
- 3. as an auxiliary method after surgery
- 4. as a gentle method for inoperable tumors
- 5. for irradiation of secondary tumor foci
- 4. The most common cause of cancer currently:
- 1. polyethological
- 2. viral
- 3. Congeima
- 4. innate
- 5. Virchova
- 5. The most informative method for cancer diagnosis:
- 1. histological
- 2. X-ray
- 3. endoscopic
- 4. computed tomography
- 5. biochemical analyses
- 6. The most effective method in the treatment of cancer today:
- 1. surgical
- 2. hormonal
- 3. chemotherapeutic
- 4. radiation therapy
- 5. conservative
- 7. For the prevention of breast cancer, the most important is:
- 1. nipple care, examination and palpation of your mammary glands
- 2. quitting smoking
- 3. proper diet
- 4. living in ecologically clean areas
- 5. annual monitoring of doctors
- 8. Cancer mortality from surgical diseases is in ... place.
- 1. second
- 2. the first
- 3. third
- 4. the fourth

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#### 5. the fifth

- 9. For the initial stage of malignant tumors, the most characteristic are:
- 1. cell atypism
- 2. temperature rise
- 3. leukocytosis
- 4. pain
- 5. functional impairment
- 10. It has an antitumor effect:
- 1.5 fluorouracil
- 2. aspirin
- 3. butadion
- 4. gentamicin
- 5. T activin

#### Situational task:

A woman with a 4-year-old child came to your reception. From the moment of birth, the boy has a pink-colored formation on the left side of his neck up to 2.5 cm in diameter, slightly protruding above the surface of the skin, soft, painless, changing color when pressed.

What is your presumed diagnosis and treatment recommendations?

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